



The Relation Between children’s Participation in Daily Activities, Their Engagement with Family and Friends, and Subjective Well-Being

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Accepted: 7 November 2019 / Published online: 20 December 2019

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Abstract

The study aimed to ascertain the relation between children’s participation in daily activities, engaging with family and friends and their subjective well-being (SWB); and to ascertain the extent to which the nature of the relation differs across three age groups (8, 10 and 12), gender, and geographical context (urban and rural). The study used data from Wave 2 of the South African Children’s Worlds Study conducted with a random sample of 3284 children between the ages of 8 to 12-years. Three scales measuring children’s daily activities, engagement with family and friends, and their SWB using the Students’ Life Satisfaction Scale were used. Data were analysed using confirmatory factor analysis and structural equation modelling; with group comparisons assessed by means of multi-group structural equation modelling. The study found a significant relation between children’s engagement with family and friends and participation in daily activities and their SWB; with the combined influence of engagement with family and friends and participation in daily activities explaining 31% of the variance in SWB. Engagement with family and friends contributed a higher explained variance in SWB than participation in daily activities. Multi-group analysis revealed the tenability of metric invariance across age and gender, which allowed for meaningful comparisons by correlation and regression coefficients. Across geographical contexts scalar invariance was tenable allowing for meaningful comparisons across correlations, regression coefficients, and latent means. While the findings of the study suggest that children’s time use is an important factor influencing their SWB, researchers, practitioners and policy makers should consider the diversity of ‘childhoods’ in South Africa, especially as it relates to the historical ‘situatedness’ of the macro-factors of poverty, deprivation, and social inequality, and how this impacts children’s access to and the nature of their daily activities.

Keywords Children · Subjective well-being · Daily activities · Time-use · Social relationships · Friends and family

1 Introduction

Children's subjective well-being (SWB) is conceptualised on a tripartite hierarchical structure consisting of cognitive and affective perceptions, and evaluations of one's life (Casas 2011; Diener 2006). The cognitive component refers to one's perceptions of global and domain-specific life satisfaction, while the affective component refers to both positive and negative affect (Diener 1999). Recent advancements in research on children's SWB have focused on various factors that influence child well-being. These include macro factors such as socio-economic status (SES) (Savahl et al. 2017), social inequality, and a nations' financial investment in children's development and poverty (Bradshaw et al. 2007; Main 2014); and micro factors such as the school environment (Casas and González 2017), family structure and the home environment (Rees 2018a), social relationships (Goswami 2012; Haanpää et al. 2019; Sarriera et al. 2018), neighbourhood and community safety (Gonzalez et al. 2018; Savahl et al. 2015; September and Savahl 2009), and children's time spent on various activities (Rees, 2017a, b, c, 2018b).

In recent years, children's time has become a contested issue, vigorously debated by policy-makers (Vogler et al. 2009; see also Stephens 1995). More than two decades ago Harding (1997) made the following crucial assertion:

For those interested in child wellbeing, time use can provide an unusually objective measure of exactly what youth are doing. Before we can evaluate how well children are doing and why some are doing better than others, it is important to understand what they are doing, with whom, and in which social contexts and institutions. (p. 1)

Subsequent to this assertion, the identification of the various social contexts in which children spend their time has become an important consideration in child well-being research (Fletcher et al. 2003). The work of Bronfenbrenner (1977, 1986) is noteworthy in this regard, emphasising children's positions within various ecological systems of their lives (see Fletcher et al. 2003). Further, the literature on children's time use has been confined to particular activities and dimensions (Chin and Phillips 2003). These include play activities (Chin and Phillips 2003), health, physical activity, work-related activities, household chores, and educational and developmental outcomes of differing patterns of time use (see Amin and Chandrasekhar 2012; Barker et al. 2014; Duch et al. 2013).

Children's 'time use' is conceptualised as a framework to explore the structure of children's daily lives, and is considered to be one of the key areas within childhood studies (Vogler et al. 2009). Rees (2017c) notes an important distinction in relation to the terminology of 'time use' versus 'participation in daily activities'. He avers that 'time-use' refers to the quantity of time, while 'participation' refers to the frequency of participation in daily activities. It is important to note that these concepts are often used interchangeably in the literature. A key shift in the literature on children's time use was aligned to the 'sociology of childhood' in the 1980's and the United Nations Conventions on the Rights of the Child (1989), with a focus on exploring children's subjective perceptions. The socio-historical research on children's time use points to children and youth as 'time-bound' entities, with children's 'misuse' of time

shaping the discourses that emanated in the 17th and 18th century. In particular, the solicitude around the potential 'idleness' discourse among children was linked to moral assertions about specific time use related to children's age and gender. For this reason, children were perceived to hold an economic worth for their parents in order to deter them from being 'idle'. The evolving conceptualisations of 'idleness', considered the opposite of 'meaningful occupation', in children within this period exhibits how children's activities were problematised, and shaped understandings of a 'normal' childhood (Vogler et al. 2009). Key stakeholders, therefore, enacted numerous reforms to 'improve' children's lives by affording control and structure over their time, to engage in 'appropriate' childhoods. Time management was then instituted within schools as a moral 'value' for children. The 'normative constructions of childhood' encompassed a restricted conceptualisation of children's time use that included sleep, leisure, play, work, and education. This conceptualisation was critiqued as it did not align to the contextual realities of children; particularly in developing contexts where children 'play' while working', or learn about work through 'playwork' (see Briggs 1990). These conceptualisations were also critiqued as it considered childhood to be homogenous, and did not acknowledge the gendered nature of time use. The particular spaces, locations, and institutional settings that were related to children's time use were thus foregrounded and studied. Moreover, as the 'places of childhood' do not always align to the broad spaces allocated to children (see Rasmussen 2004), it is essential to engage with children to determine their perspectives as they are the most reliable source on how they use their time (Ben-Arieh and Ofir 2002).

2 International Comparative Studies on children's Time Use

It is noteworthy that time use has been explored in developing and developed contexts; however, to date there have only been a few international comparative studies exploring children's time use across various contexts. The recent work of Rees (2017a, b, 2018b) has contributed substantially to understanding the role of children's participation in daily activities and time use in this regard. Using data from the Children's Worlds Study, Rees conducted a cross-cultural analysis with children in three age groups (8, 10, and 12) across 16 countries (2017a), explored children's daily activities and time use with 12-year olds (2017b), and explored the relation between leisure activities and SWB (2018b). Rees (2017a) highlights the need to understand children's daily activities within the specific context of individual countries. It was found that leisure-based activities such as playing sports, watching television, and using computers were common in high-income countries; whereas helping around the house and caring for family members were more common in low-income countries (Rees 2017b). Furthermore, educational-related time use (taking formal classes, doing homework, and studying with friends and family) was more frequent amongst children who spent their time doing house work and caring for others (Rees 2017a). The findings further revealed a significant relation between children's participation in sports activities and reading on SWB (Rees 2018b). In terms of gender differences, boys tended to spend their

time on leisure-based activities (playing sports and using computers) whereas girls more frequently spent their time helping around the house, doing homework, and reading (Rees 2018b). While previous studies have found a ‘trade-off’ between the intensity of work-related activities and the negative impact on educational engagement and attainment, this was not evident in the studies by Rees (2017a, b). A key point that Rees (2017a) notes is that the questions on children’s daily activities consider the frequency and not the intensity of engaging in a particular activity. Thus, some children may engage in a particular activity for fewer days in the week, but for a longer period time, which may skew the interpretation of their actual time use.

Most comparative studies on children’s time use centre around the relation between enrolment in and school attendance and competing work commitments (in and outside of the home). The United Nations Educational, Scientific and Cultural Organization’s (UNESCO’s) Global Education Monitoring Report addresses Sustainable Development Goal 4 that focuses on ensuring inclusive and equitable quality education and lifelong learning for everyone. The initiative advances that “education has the power to nurture empowered, reflective, engaged and skilled citizens” (p. 4). It was reported that in 2014, 263 million young people were not enrolled in school. Overall, the trends are 50 to 100 years behind the targets, with poorer countries lagging furthest behind. The percentage of adolescents who completed secondary school varied in terms of the income status of the context, more specifically: 84% in high income countries, 43% in upper middle income countries, 38% in lower middle income countries, and 14% in low income countries. In relation to gender disparities, gender parity was reportedly achieved for 63% of countries at primary school level, 46% at lower secondary school level, and only 23% at upper secondary school level.

The study by Putnick and Bornstein (2015) explored the relation between different types of child labour and school enrolment across 30 low-to-middle-income countries (LMICs). The study used data from the Multiple Indicator Cluster Survey (see UNICEF 2006) with children aged 7 to 14-years. The key results indicate significant negative relations between various types of child labour and school enrolment for the pooled sample, which was moderated by country and gender. More specifically, relations were found between child labour, school enrolment, family work, and excessive household chores. However, there was no relation evident between the aforementioned variables and work outside the home within the countries. Child labour in particular was related to a decrease in school enrolment for most countries. It is therefore important to consider gender norms in terms of child labour and schooling within countries to gain a more comprehensive understanding of the contextual role of these factors, and the influence on children’s lives.

In a systematic review of similar studies across 18 African countries, Gibbons, Huebler, and Loaiza (2005) report that more than half of the studies found a positive relation between child labour, school attendance. The study considered various types of child labour and controlled for age and caregiver education, and assessed the moderating effect of country and gender. They found significant negative associations between all forms of labour examined and school enrolment, but with small effect sizes. Other factors such as school

availability and accessibility, quality and cost of schooling, parents' cognition about schooling, and children's cognitive ability were reported as additional contributors to school enrolment.

Using pilot surveys across three continents (Asia: Philippines; Africa: Nigeria; and North America: Mexico), Jordan et al. (2018) examined the relation between transnational parenting (frequency and intensity) and children's engagement in daily activities. The study also assessed gender differences of the migrant parent and child. It was found that the gender of the child, migrant parent, and caregiver influenced the level of parental engagement and children's daily activities. Further, in two of the countries it was found that girls spend more time engaged in household chores compared to boys, which was not influenced by parental migration.

While empirical studies on children's time use have been conducted in both developed and developing contexts, there has been considerably less research from the latter contexts (Rees 2017a). The section that follows, considers children's time use and participation in daily activities across both developed and developing contexts.

3 Children's Time Use in Developed Contexts

There is a burgeoning amount of research focusing on children's time use and engagement in daily activities within developed contexts (see for e.g. Bucksch et al. 2014; Cleland et al. 2008; Copperman and Bhat 2007; Hofferth and Sandberg 2001; Hunt et al. 2014; Mencarini et al. 2014). Cleland et al. (2008) conducted a prospective study to determine whether time spent outdoors was related to objective physical activity, body mass index (BMI), and overweight among children in grades 5 and 6 (10 to 12 years old) in 2001 (time 1) and 2004 (time 2) in Melbourne, Australia. Using parents as proxies to report on children's time use, the key findings indicate that increased time spent outdoors was related to a lower prevalence of overweight for 12-year olds. It was also found that among 12-year old boys, time spent outside predicted physical activity at baseline, with an inverse relation found for the occurrence of overweight at time 2. Finally, the prevalence of overweight among older children at time 2 was 27 to 41% lower for those that spent more time outdoors at baseline. Copperman and Bhat (2007) explored the daily activities of children aged 5 to 18-years old attending schools in the USA. Using data from the 2002 Child Development Supplement (CDS) to the Panel Study of Income Dynamics (PSID), it was found that children's engagement in daily activities differs across age. Further, the results showed that children engaged in sports activities most frequently during the week, and engaged in social clubs and meetings most frequently over the weekend. In terms of recreation, watching television or movies was engaged in most frequently during the week and over weekends by children. The majority of children engaged in physically passive rather than active recreational activities.

Bucksch et al. (2014) examined adolescents time spent watching television, non-gaming personal computer (PC) use, and moderate-to-vigorous physical activity

(MVPA) in Germany. The study used data from the German Health Behaviour in School-aged Children at three time points (2002, 2006, 2010) with children aged 11 to 15-years. The study found that watching television during the week decreased over time, with an increase in MVPA. A substantial increase in time spent on PC use by girls was also found. The study by Hofferth and Sandberg (2001) assessed time use variations among children and its relation to achievement and behaviour using the CDS to the PSID 1997. The findings indicate that reading for fun, playing sports, and social activities were related to higher academic achievement, while time spent with family was related to a lower incidence of behavioural difficulties. It was also found that parental demographic characteristics such as marital status, family size, and employment influenced the time children spent on various activities (educational, structured, and family activities). Vandewater et al. (2006) examined whether watching television hindered children's engagement in developmentally productive activities, also using data from the CDS 1997. Children's time spent watching television (on their own) was found to be negatively related to time spent engaging with parents or siblings, and less time spent on homework and creative play.

In a recent edition of Child Indicators Research, Busetta et al. (2019) explored children's and mother's time use in Italy, using data from the National Time Use Survey 2008–2009. The findings demonstrate that the education level of the mother influenced not only children's time use, but also positive outcomes for children. The study also supports the finding of a 'gender role characterisation' in children's use of time; as girls spend more time on activities within the home and less time to do what they want when compared to boys. The gendered conception of time was also evident in the study by Hunt et al. (2014) with adolescents in Ireland. Similarly, Mencarini et al. (2014) used data from the National Time Use Survey in Italy with children aged 5 to 18-years old. The study explored children's time spent reading and studying at home in single-parent households. Similar to previous research, they found that children within these households spent less time reading and studying, which was related to maternal poverty and education. The study by Ruiz (2014) similarly explored the influence of parental education on time use among children and youth (10 to 24-years) in Spain, using the Spanish Time Use Survey 2009–2010. It was found that older children engaged in more social and active leisure activities. Akin to findings by Mencarini et al. (2014), for children between the ages of 10 to 15-years old, parental education was positively related to studying and reading, and negatively related to watching television or listening to radio.

In addition to the contributions of the empirical research on children's time use and daily activities, several noteworthy reviews have synthesised the literature exploring children's time use, predominantly in developed contexts (see Ben-Arieh and Offir 2002; Gleave 2009; Harding 1997; Jansen and Le Blanc 2010; Vogler et al. 2009). The review by Harding (1997) focused on the methodological issues related to assessing children's time use in the USA. The three most widely used methods that emerged from the literature to measure time use was 'standard survey instruments', 'time diaries', and the 'experience sampling method'. A key finding of the review was that the literature on children's time use has focused on ascertaining the 'determinants of time use'. Moreover, there were substantial variations in children's time use

in terms of age and gender in the literature, with a smaller influence of family structure and maternal employment. There has also been a strong focus on the relation between gender and engagement in household activities, with inequalities evident between genders (Harding 1997). The review by Vogler et al. (2009), which formed part of the Young Lives project, has contributed substantially to the literature on children's time use; highlighting the historical shift and development of the field. The review focused on three key aspects related to children's time use namely, the historical and socio-cultural context, the subjective domains of children's time use, and the methods employed in empirical studies. One of the key findings was that historically, children were exploited in terms of labour in both industrialised and less industrialised contexts. Following a dearth of research on children's time use from non-industrialised contexts prior to the 1960's, the ensuing focus was predominantly on child labour from the perspectives of adults. They underscore the contribution of the Young Lives project in this regard, as it explores children's subjective perceptions. Vogler et al. (2009) note that research on children's subjective perceptions of their daily activities and time use affords crucial data and evidence from children's perspectives to gain a better understanding of their well-being, and developmental trajectories.

Similarly, a rigorous review of the literature on children's time use is provided by Ben-Arieh and Ofir (2002). Four criteria were used to analyse the studies included in their review namely, the source of information, children's age, study population, and research methodology. It was found that most studies used adults as proxies to report on younger children's time use, while studies with adolescents included their subjective perceptions; reflecting the predominant epistemological stance of the time. It was further found that the majority of studies focused on 12–18 year olds, with fewer studies with younger children (0–11 years). Studies that included the whole child population examined children's overall daily activities, whereas studies with specific child populations explored time use in relation to another variable. The three widely-used methods of research used were observations, self-report, and recall self-report. Based on these findings, they argue for more participatory research on children's overall time use using large samples, with children as informers and co-researchers in developing the study. They note that the numerous titles, keywords, and publication indexing may limit the location of all relevant literature on children's time use, and should be considered in future reviews.

4 Children's Time Use in Developing Contexts

The literature shows that children's daily activities in developing countries generally converge around labour-related activities, with a specific focus on meeting or contributing to economic needs. Children's time use in developing countries such as South Africa, Algeria, Ethiopia, and Sierra Leone vary to an extent from other developing countries. Owing to the extreme levels of poverty, unemployment, and crime, many children in South Africa are often exploited for either paid or unpaid work (Heaton and Amoateng 2007). This could include work at home, the wider family, or a parents' employers home (Bray 2003). Further a number of children are often left orphaned

owing to the rising morbidity and mortality rates in South Africa (Bray 2003). Furthermore, given the economic and psychosocial pressures within the household, children are often engaged in certain forms of work activities that exposes them to certain risks, such as frequently missing days or weeks of school as they become primarily responsible for household chores, caring for younger siblings, grandparents, and sick relatives (Bray 2003; Heaton and Amoateng 2007).

A study conducted by Thompstone and Crispin (2010) found that 31% of children in Sierra Leone under the age of 15 are involved in some form of labour. Classified as one of the poorest nations in the world, children in the country engage in intensive forms of labour (working in markets and carrying heavy loads), which tends to be higher in rural than urban areas. Similarly, Holgado et al. (2014) explored the influence of child labour on academic performance in Colombia. In this study child labour was measured by determining the child's engagement in family business and work within and outside the home for remuneration. It was found that the type of labour that the child was involved in had varying effects on their academic performance. This ranged from the participants failing a particular school subject or the academic year, to leaving school before the year was completed. Children's engagement in various forms of labour were largely driven by economic concerns and the need to contribute to the household (Holgado et al. 2014; Thompstone and Crispin 2010).

Studies by Amin and Chandrasekhar (2012), Ersado (2005) and Putnick and Bornstein (2015) identified the role of child labour on children's time use and educational outcomes. Amin and Chandrasekhar (2012) examined whether time spent in school, studying (outside of school), working, and leisure varied among sample of young people in Bangladesh. The findings indicate that there is a negative relation between time spent at work and the amount of time children spend studying at home. It was also found that girls spend more time in school than boys and are more likely to progress to secondary school. Additionally, children whose parents had higher levels of educational attainment and were from wealthier households spent more time studying. Ersado's (2005) cross-country comparative study on children's engagement in child labour and schooling decisions in Nepal, Peru, and Zimbabwe found that children's engagement in child labour was primarily driven by poverty. The study further found that higher parental education levels were found to significantly reduce children's involvement in labour and increase school attendance (Ersado 2005). Another multi-national comparative study examined the influence of child labour on school enrolment in 30 LMICs (Putnick and Bornstein 2015). The study found that child labour (of various forms) was significantly negatively related to school enrolment (except in Gambia and Nigeria). The results indicate that these negative relations were moderated by country and gender, reflecting high variances.

Akin to other developing African contexts, in Algeria a large proportion of children's time is allocated to agricultural labour (Boussena and Tiliouine 2015). Tiliouine (2015) asserts that as playgrounds and equipment for children are limited in the Algerian context, children usually spend time playing in the street. This potentially makes children vulnerable to the threat of passing cars

and injuries from unsafe play spaces. The results of a survey of 1000 representative households found that children's engagement in leisure and sports activities was limited, with less than two in 10 children participating in a sport on a regular basis, and less than one in 10 children participating in cultural activities (Centre d'Information et de Documentation sur les Droits de L'Enfant et de la Femme, 2009, as cited in Tiliouine 2015). Time use for children in Algeria typically involves doing school homework, watching television, spending time with peers, and helping with domestic chores (Tiliouine 2015).

Ethiopia's economy is predominantly based around subsistence agriculture and many children are expected to contribute to agricultural activities (Mekonen and Dejene 2015). Boys are mainly engaged in the herding of cattle and assisting in farm activities; while from an early age, girls are mainly involved in activities such as household chores, fetching water, and caring for younger siblings (Mekonen and Dejene 2015). Woldehanna (2009) posits that children's time spent between work and education is shaped by the availability of assets, inputs, the effectiveness of labour, and parental education levels. He further states that in Ethiopia, children may be required to spend their time engaged in activities aimed at short-term benefits, such as earning income from child labour instead of using their free time for recreational activities. This supports research conducted by Woldehanna et al. (2011), which found that over 90% of 8-year olds, and 98% of 15-year olds in Ethiopia were involved in some kind of work; paid or unpaid. The activities that consumed the most time was caring for other children, chores within the household, and labour within the family, such as farming which often goes unpaid.

5 Children's Time-Use across Urban and Rural Contexts

A relatively unexplored area within the literature relates to children's participation in activities across urban and rural contexts. Specifically, there is a lack of empirical literature comparing children's activities and time across these contexts. Confounding this line of research is the lack of consensus regarding what constitutes urban and rural, across developing and developed countries and also within countries. Empirical evidence is demonstrated in a study conducted by Loucaides et al. (2004) who explored seasonal differences in physical activity in a sample of 256 children (11 to 12-years old) in urban and rural communities in Cypress, Greece. The results show that children in urban schools participated more in physical activities and spent twice as much time playing video games in winter than children in rural schools. Further, in summer those from urban schools reported spending more time on sedentary activities such as video games and watching television, while physical activities among children in rural schools increased by 37% (Loucaides et al. 2004).

More recently, Neto et al. (2014) conducted a study to determine active and sedentary behaviours amongst a sample of 1770 children (7 to 10-years old) from urban and rural parts of south-eastern Brazil. The results reveal that children from rural areas tend to be more active in comparison to those from urban areas and spend most of their time walking, cycling, or traveling to school. However, children from urban areas were more inclined to walk short distances to school and spend most of their time on sedentary activities such as engaging in screen-based activities (Neto et al. 2014).

6 Children's Social Relationships and Subjective Well-Being

A growing body of empirical research emphasises the association between relational aspects and children's SWB. A study conducted by Goswami (2012), amongst a sample of 4673 children attending secondary schools in England, found that levels of SWB were diminished by unfair treatment from adults, bullying victimisation, and negative aspects of friendship relationships. In contrast, increases in SWB were related to relationships with adults in the neighbourhood, friends (positive aspects of these relationships), and family. Children's relationships with their family were found to be the main contributor to their SWB.

McAuley, McKeown and Merriman (2012) explored children's (9-year old) perspectives on their daily lives in relation to family and friends, and the activities in which they engage. Forming part of the Growing Up in Ireland mixed-methods national study, it was found that support from family members increased children's engagement in structured (sporting, cultural, and technology-based activities facilitated by teachers) and unstructured (free play and engagement with friends without adult supervision) activities. Additionally, closeness to immediate and extended family members and spending time with friends fostered high levels of well-being. Essentially, interactions with family and friends positively influences children's well-being and relates to feelings of safety, relaxation, and autonomy.

Similarly, Gray, Chamratrithirong, Pattaravanich and Prasartkul (2013) explored the contributions of family and non-family factors to happiness among 905 adolescents in Thailand aged 15–18 years. The contribution of family-related factors (structure, relationships, and cohesion) towards happiness was slightly higher than non-family factors (school and work activities, leisure, self-esteem and environment). Adolescents who reported spending more time with family members and experienced higher levels of love and emotional connectedness were happier than those who reported less emotional bonding with family.

As part of the Children's Worlds Study, Lee and Yoo (2015) examined the relation between children's SWB and family, school, and community with a sample of 12-year olds ($n = 12,077$). The study found that activities with family and peers, and neighbourhood safety consistently predicted children's SWB. School (9%) and community (7%) accounted for less of the variance in SWB than did family (40%). Higher levels of SWB were therefore associated with time spent with family.

More recently, a comparative study conducted by Sarriera et al. (2018) among Brazilian ($n = 1020$) and Spanish ($n = 5727$) children (11 to 14-years), investigated the relation between personal relationships and SWB. The findings revealed that in both countries, personal relationships with family, school, and friends accounted for 40% of the explained variance in children's SWB (see Haanpää and af Ursin 2018; Haanpää et al 2019). Recent studies conducted in Finland confirm the influence of social relationships on children's SWB. Haanpää and af Ursin (2018) investigated the relation between family engagement, participation in leisure activities, and children's SWB with a sample of 2840 children between the ages of 8 and 12-years old. The study found that spending time with family is essential and directly affects children's well-being. Similarly, Haanpää et al. (2019) investigated the extent to which poverty,

material deprivation, and social relationships are associated with life satisfaction amongst a sample of 1793 schoolchildren. The study found that social relationships and the family's financial circumstances contributed to children's life satisfaction. More specifically, the study found that the relationship between the child and mother was the strongest predictor of a child's life satisfaction, confirming the important role of quality relationships.

Another important consideration is the extent to which information and communication technologies are changing the nature of how young people engage and communicate with family and friends (Odendaal et al. 2006; Savahl et al. 2008). Taken together, across developed and developing countries, social relationships, and in particular family factors, are a key contributor to children's SWB.

7 Rationale

Research exploring how children spend their time is crucial in determining how children live their lives as well as understanding their well-being (Ben-Arieh and Ofir 2002). Few studies exploring children's time use have considered the connection between activity involvement and psychological and behavioural well-being (Fletcher et al. 2003). A notable exception is found in the work of McHale et al. (2001) who found that the different ways in which children spend their time predicted academic grades, behaviour, and 'depressive symptomology' (McHale et al. (2001). There are also few studies that investigate the relation between children's leisure activities and their SWB (see Haanpää and af Ursin 2018; Rees 2018b). A consideration of the aforementioned literature further points to patterns of children's time-use across age, gender, and geographical context. Across age, Rees (2017a, b, c) found that younger children spend more time learning and having fun with the family and reading for pleasure, while older children invested more time in engaging with friends and on screen-based activities. The gendered nature of children's activities was also evident in the literature. For example Busetta et al. (2019) found that girls tended to spend more time on home-based activities such as housework and homework, while boys were more involved in sport, exercise, and using a computer (Rees 2017c). There has, however, been less empirical focus on children's activities across urban and rural geographical contexts, specifically as it relates to SWB. The available literature does reveal different contextual experiences, with children from urban areas investing more time on screen-based activities, while children from rural areas spend more time on outdoor activities, and an inordinate amount of time traveling to and from school. However, noting the aforementioned studies, it is axiomatic that there are no empirical initiatives focusing specifically on exploring the relation between children's daily activities in general and their SWB. The current study makes a contribution in this regard. It broadly aimed to ascertain the relation between children's participation in daily activities and engaging with family and friends and their SWB in South Africa. The study further aimed to ascertain the extent to which the nature of these relations differs across three age groups (8, 10 and 12), gender, and geographical context (urban and rural).

8 Method

8.1 Design

The current study uses data from the second wave of the South African Children's Worlds Study (see www.isciweb.org). The Children's Worlds Study is a multinational collaborative study that aims to assess children's subjective perceptions of their well-being across different contexts and domains. In South Africa, the study followed a cross-sectional survey design using a stratified random sample of children (8, 10, and 12-years old) attending 29 primary schools in the Western Cape Province.

8.2 Research Context

Owing to apartheid, the history of children and childhood in South Africa is characterised by exposure to political violence, oppression, abuse, and suffering. With the advent of democracy in 1994, the government legislated a series of commitments to redress the atrocities that children experienced in the past to make South Africa a better place for all children (Savahl et al. 2015). However, after 25 years of democracy, and despite legislative advancements, the well-being of South Africa's children remains compromised (Savahl et al. 2019a, b). With a genesis largely aligned to the socio-political history of the country, growing up as a child in South Africa embodies a diversity of experiences, characterised by high levels of social inequality and the polarised 'lifeworld' of opportunity and provision on the one hand, and deprivation on the other (Savahl et al. 2016). This is reflected in the Human Development Index (HDI) of 0.69, with the country ranked 113 of 189 countries (United Nations Development Programme 2018). Given the high levels of social inequality and disparities between the privileged and disadvantaged, it is paramount to consider the diversity of life experiences between children living in various SES communities (Savahl et al. 2015). This has culminated in the segregation of communities into privileged, or high socio-economic communities, characterised by high income, high educational attainment, high levels of employment, and low incidence of violence. However, disadvantaged communities are characterised by low educational attainment and income, high rates of substance use, unemployment, and crime and violence. These burdens are often endured by children who are dependent on adults for safety and care (Hall et al. 2012). Moreover, of the more than 19 million children in the country, several million live in various forms of poverty that impacts their overall quality of life, such as access to primary health care services, safety, education, and time use.

8.3 Participants and Sampling

The participants were selected from the eight Education Management District Councils (EMDCs) of the Western Cape Education Department, which included four urban and four rural districts. The schools were selected using a two-stage stratified random sampling process. Firstly, schools were stratified by geographical context (urban or rural), and secondly SES (low or middle). Private schools and schools inaccessible by road (including farm schools) were excluded. The sampling

protocol utilised a 95% confidence level and a 3% margin of error. The sampling frame included 646 primary schools, with the final sample including 29 schools from low and middle SES communities. Two classes per grade (2, 4, and 6) were randomly selected to participate in the study. The original English questionnaire was translated into Afrikaans and isiXhosa using the back-translation method; these languages are predominantly spoken in the Western Cape Province. The children could choose to complete the questionnaire in the language version they preferred. The final sample included 3284 children aged 8, 10, and 12 years old (8-year olds, $n = 1032$; 10-year olds, $n = 1109$; 12-year olds, $n = 1143$).

8.4 Instrumentation

8.4.1 Daily Activities Items

The study included 12 items from the Children's Worlds Study that assessed the frequency of children's participation in daily activities across the three age groups. Six items were asked about the frequency of children's participation in the following activities (when not at school): taking classes; reading for fun; helping around the house; doing homework; watching television (TV); playing sport/exercise; and using a computer (or device) (see Table 1). The response options for these items were on a 4-point frequency scale and ranged from "Rarely or never" = 0, to "Everyday or Almost everyday" = 3.

8.4.2 Engagement with family and friends items

Six questions asked children to indicate the frequency of their participation in: talking, having fun, and learning/studying together with family and friends (see Table 2). The items were on a 4-point frequency scale ranging from "Not at all" = 0, to "Every day" = 3.

Table 1 Items and scale response option of children's daily activities

Daily activities	Rarely or Never	Less than once a week	Once or Twice a week	Every day or Almost everyday
Taking classes				
Reading for fun (not homework)				
Helping out around the house				
Doing homework				
Watching TV or listening to music				
Playing sports or doing exercise				
Using a computer				

Table 2 Items and scale response options of children's engagement with family and friends

Family/friends	Not at all	Once or Twice	Most days	Every day
Talking with family				
Having fun with family				
Learning with family				
Talking with friends				
Having fun with friends				
Studying with friends				

8.4.3 Students' Life Satisfaction Scale (SLSS)

The original SLSS includes 7 items that assess children's (age 8–18 years) global life satisfaction (Huebner 1991). The items are context-free and require respondents to evaluate their satisfaction on a 5-point Likert scale ranging from "Very much disagree" = (0), to "Very much agree" = (4). For Wave 2 of the Children's Worlds Study, a modified 6-item version of the SLSS was used (see Table 3). The sixth item was adapted from Diener, Emmons, Larsen, and Griffin's (1985) Satisfaction With Life Scale (SWLS), namely "The things in my life are excellent" (Rees and Main 2015). In the current study, for the 8-year olds a five-point verbal response unipolar agreement scale, ranging from "I do not agree to" "I agree completely" was used and for the 10 and 12-year olds a 0–10 end-labelled agreement scale with verbal anchors of "Not all agree" = (0) to "Totally agree" = (10) was used. However, during the analysis phase, the data from the 10 and 12-year olds were rescaled into a 5-point scale in alignment with the 8-years olds; SLSS response options; this allowed for meaningful comparisons across groups. This rescaling format was used by Savahl et al. (2019b) based on recommendations made by child participants during a cognitive interview process. The following rescaling format was used:

- 0–2 = I do not agree.
- 3–4 = Agree a little bit.
- 5–6 = Agree sometimes.
- 7–8 = Agree a lot.
- 9–10 = Very much agree.

The scale has been shown to display acceptable internal consistency, with alpha coefficients of 0.82 (Huebner 1991; Huebner et al. 2004), 0.86 (Dew and Huebner 1994), and 0.89 (Marques et al. 2007). The SLSS has been validated in the South African context (see Savahl et al. 2017), and has shown an acceptable internal consistency of 0.75. The SLSS has also demonstrated convergent validity with other life satisfaction measures (Dew and Huebner 1994; Huebner 1991) and overall life satisfaction (Casas et al. 2013). The scale has been shown to display good criterion (Huebner et al. 2003), discriminant (Huebner and Alderman 1993), and predictive validity (Suldo and Huebner 2004).

Table 3 *Items and scale response options for the Students' Life Satisfaction Scale**

SLSS items	I do not agree	Agree a little bit	Agree sometimes	Agree a lot	Very much agree
<ul style="list-style-type: none"> • My life is going well • My life is just right • I have a good life • I have what I want in life • My life is better than most kids • The things in my life are excellent 					

*For the 8-year olds

8.5 Procedure and Ethics

The study obtained ethics clearance from the Senate Research Committee of the University of the Western Cape, as well as the Western Cape Education Department.

The research team met with the principal and life skills teacher at the selected schools to discuss the study details. An information session was then held with the participants, and the particulars of the study and key ethics principles of informed consent, confidentiality, their right to withdraw, and privacy were explained. The researchers also informed the participants about the dissemination procedure for the findings of the study. Only those children who provided both personal and parental signed consent participated in the study. The questionnaires were researcher-administered in the classroom setting during the administration period at the beginning of the school day. The data were captured by members of the research team and thereafter sent to the Children's Worlds international coordinating team for data deputation (see Casas and Rees 2015). In preparation for data analysis of the current study, cases with more than three missing values for each scale were deleted and those with two or less were substituted by regression imputation. The final sample consisted of 3284 across the three age groups.

8.6 Data Analysis

The study used confirmatory factor analysis (CFA) and structural equation modelling (SEM) (AMOS version 25) to analyse the data. These represent a general set of data analysis techniques wherein specified theoretical models, indicating the relationship between observed and unobserved variables, are assessed against a set of observed data. The estimation of parameters and assessment of model fit are the key aims of SEM (Hox and Bechger 1998). If a good-fitting model exists the researcher is able to ascertain the strength and nature of the paths between variables. The data analysis process followed three steps. Firstly, CFA was conducted on the individual measures to obtain the best fit. Following recommendations by Jackson, Gillaspay, and Purc-Stephenson (2009) and Kline (2011), the Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square

Residual (SRMR) were used as fit indexes. Results higher than .950 were accepted for the CFI and results below .05 were regarded as a good fit for the RMSEA and SRMR. Improvement of model fit was achieved by excluding items that presented with excessively low factor loadings ($<.2$) and the addition of error covariance constraints (Kline 2011). This was effected with the consideration of modification indices and the expected parameter change, where error covariances were included on items that presented with high parameter associations. Thereafter, the items with high correlations ($r > .3$) were inspected. For items that presented with a reasonable content overlap, it was speculated that the participants were interpreting the items in a similar way. Model fit was improved through the inspection of the standardized residual covariances; and subsequently the trial and error deletion of one of the items that presented with high correlations. The deletion of any items was only actioned if it resulted in the CFI of the model improving by more than .01 (Jiang and Huebner 2018). Subsequently, SEM was conducted to assess the model fit of the specified relations between the latent variables. Finally, multi-group SEM was conducted to ascertain the measurement invariance of the model across age, gender, and geographical context (urban or rural). Measurement invariance refers to the extent to which items on the measure have the same meaning between groups, and is a pre-requisite for determining meaningful comparisons between groups (Meredith 1993). If it is not met, then group comparisons on the measured variables would have ambiguous and unreliable interpretations (Millsap and Olivera-Aguilar 2012).

Measurement invariance was assessed through a series of multi-group models across the three groups (age, gender, and geographical context). Each model was tested through three sequential steps wherein increasingly restrictive constraints were incrementally applied to the baseline model. In the first step, configural invariance was tested with unconstrained loadings and intercepts, and represents the baseline model. In the next step, metric invariance was tested by constraining the factor loadings. Thereafter, scalar invariance was tested by constraining the factor loadings and intercepts. Each subsequent constrained model was regarded as tenable if the model fit did not worsen by more than .01 on the CFI (Cheung and Rensvold 2002) and by .015 on the RMSEA and SRMR (Chen 2007). However, it is important to note that full scalar invariance does not always hold in practice (Milfont and Fischer 2010), resulting in the consideration of partial measurement invariance. The concept of partial measurement invariance (Byrne et al. 1989) refers to the practice wherein various parameters are constrained to be invariant, while others are allowed to be freely estimated. This allows for meaningful cross-group comparisons in the cases where full invariance is not obtained (Milfont and Fischer 2010). In the current study partial measurement invariance was applied by the assessment of a range of models wherein various permutations of parameters were relaxed to obtain the best fit.

9 Results

Skewness for items pertaining to participation in daily activities ranged from -1.595 to -0.56 ; while kurtosis ranged from -1.635 to 1.573 . Furthermore, skewness for the items related to children's 'Engagement with family and friends' ranged from -2.137 to

Table 4 Item Mean Scores across age, gender and geographical context

	Age						Gender				Geo location			
	8		10		12		Boy		Girl		Urban		Rural	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SLSS 1	3.74	.587	3.59	.925	3.40	1.076	3.60	.901	3.55	.908	3.56	.925	3.62	.847
SLSS 2	3.74	.595	3.49	1.038	3.35	1.101	3.56	.917	3.48	.997	3.50	.978	3.57	.909
SLSS 3	3.70	.631	3.50	1.091	3.35	1.139	3.56	.955	3.46	1.037	3.49	1.014	3.57	.957
SLSS 4	3.57	.740	3.09	1.348	3.02	1.318	3.25	1.185	3.18	1.219	3.20	1.221	3.26	1.152
SLSS 5	3.56	.724	2.87	1.461	2.69	1.468	3.12	1.272	2.93	1.378	2.99	1.342	3.10	1.299
SLSS 6	3.66	.660	3.40	1.145	3.11	1.268	3.45	1.023	3.32	1.147	3.38	1.105	3.40	1.052
FreqFamTalk	2.56	.815	2.45	.825	2.44	.815	2.44	.858	2.51	.781	2.47	.813	2.50	.839
FreqFamFun	2.56	.794	2.34	.824	2.10	.878	2.30	.868	2.34	.841	2.35	.851	2.26	.862
FreqFamLearn	2.57	.812	2.29	.922	2.05	1.010	2.31	.941	2.28	.949	2.33	.918	2.20	1.009
FreqFriendsTalk	2.54	.840	2.42	.892	2.46	.843	2.47	.859	2.47	.862	2.50	.835	2.42	.922
FreqFriendsFun	2.56	.833	2.39	.870	2.40	.874	2.50	.844	2.40	.877	2.47	.850	2.39	.894
FreqFriendsStudy	1.79	1.283	1.62	1.260	1.22	1.153	1.59	1.258	1.47	1.248	1.57	1.251	1.42	1.256
FreqClasses	1.72	1.081	1.94	1.085	1.82	1.129	1.84	1.103	1.82	1.103	1.85	1.082	1.78	1.156
FreqReadFun	2.37	.876	2.13	1.104	2.03	1.089	2.14	1.050	2.20	1.033	2.21	1.021	2.06	1.088
FreqHelpHouse	2.48	.805	2.41	.896	2.45	.858	2.38	.886	2.50	.821	2.48	.826	2.36	.922
FreqHomework	2.63	.730	2.55	.812	2.70	.692	2.54	.818	2.70	.669	2.64	.729	2.58	.798
FreqWatchTV	2.53	.777	2.54	.803	2.56	.786	2.55	.792	2.55	.786	2.57	.775	2.49	.822
FreqSportEx	2.37	.862	2.44	.911	2.22	.982	2.44	.873	2.25	.964	2.27	.907	2.27	.971
FreqUseComp	1.86	1.183	1.93	1.205	1.75	1.185	1.90	1.187	1.79	1.197	1.85	1.194	1.83	1.192

Scale responses options were on a 4 – point verbal response format

-.597; while kurtosis ranged from - 1.310 to 3.928. The skewness of the SLSS items ranged from - 2.328 to - 1.148; while kurtosis ranged from 0.063 to 5.026. These departures from normality were attended to using the bootstrap method (500 samples) as specified in AMOS (version 25). Item mean scores for the scales, across age, gender, and geographical context are presented in Table 4.

10 Confirmatory Factor Analysis

Confirmatory factor analysis was conducted with the separate scales to ascertain appropriate fit. For the daily activities latent variable, the initial model (Model 1 in Table 5) presented with an inadequate fit. A modified model with the addition of one error-covariance (between “Frequency of doing homework” and “Frequency of helping in the house”) resulted in a good fit (Model 2 in Table 5). For the engagement with Family/Friends latent variable, the initial model presented with an inadequate fit (Model 3 in Table 5), which improved with the deletion of two items (“Talk with friends” and “Studying with friends”) (Model 4 in Table 5). For the SLSS, the initial model presented with an inadequate fit (Model 5 in Table 5), which improved with the deletion of one item (“My life is better than most”) and the addition of one error covariance (between items “My life is going well” and “My life is just right”) (Model 6 in Table 5). The addition of the error-covariances as indicated above were deemed appropriate as it was speculated to be as a result of the semantic equivalence of the items on the covaried factors. The deleted items in the latent variables presented with low factor loadings and high standardized residual covariances – the deletion of these items improved the fit indexes of the model by $>.01$. Factor loadings ranged between .37 to .67 for engaging with family friends, between .36 to .50 for daily activities, and between .62 to .74 for the SLSS.

11 Structural Equation Modelling

The initial model presented with an adequate fit (Model 7 in Table 5; Fig. 1). For the overall model (pooled sample), the results showed that the family/friends and the daily activities latent variables made a significant contribution to the SLSS with a Squared Multiple Correlation (SMC) of .31. This means that the combined influence of children’s engagement with family/friends and their daily activities contributed 31% to the explained variance in SWB. It is apparent that the highest contribution is from the ‘engagement with family/friends’ latent variable (.45).

12 Multi-Group Structural Equation Modelling

Multigroup SES was applied to test for measurement invariance across age, gender, and geographical location (urban/rural). Metric invariance was found to

Table 5 Fit indexes for the confirmatory factor models and the structural equation models

Model	Chi-square	df	p value	CFI	RMSEA	SRMR
1. Initial Model: Daily Activities	257.292	14	.000	.859	.073 (.065–.081)	.046
2. Modified Model: Daily Activities (1 error-covariance)	76.816	9	.000	.961	.048 (.038–.058)	.026
3. Initial Model: Engagement Family Friends	913.443	9	.000	.725	.175 (.165–.185)	.092
4. Modified Model: Engagement Family Friends (2 items excluded)	32.704	4	.000	.985	.047 (.033–.062)	.019
5. Initial Model: SLSS	287.006	9	.000	.961	.097 (.088–.107)	.038
6. Modified Model: SLSS (5-items, 1 item excluded, 1 error covariance)	26.449	4	.000	.996	.041 (.027–.057)	.012
7. SEM	443.403	99	.000	.966	.033 (.029–.036)	.030
8. SEM: Configural Age	751.514	297	.000	.952	.022 (.020–.024)	.046
9. SEM: Metric Age	882.195	323	.000	.943	.023 (.021–.025)	.050
10. SEM Scalar Age*	1200.178	349	.000	.910	.027 (.026–.029)	.051
12. SEM Configural Age (10–12 years)	455.089	198	.000	.964	.024 (.021–.027)	.0323
13. SEM Metric Age (10–12 years)	522.979	211	.000	.956	.026 (.023–.028)	.0392
14. SEM Scalar Age (10–12 years)	646.717	224	.000	.941	.029 (.026–.032)	.041
15. SEM Scalar Age (10–12 years) Partial Constraints (2 items)	594.722	222	.000	.948	.027 (.025–.030)	.041
16. SEM: Configural Gender	633.696	198	.000	.958	.026 (.024–.028)	.033
17. SEM: Metric Gender	664.901	211	.000	.956	.026 (.023–.028)	.035
19. SEM Scalar Gender*	807.733	224	.000	.944	.028 (.026–.030)	.035
20. SEM Scalar Gender Partial Constraints	748.475	223	.000	.950	.027 (.025–.029)	.0347
21. SEM: Configural Geographical Context	583.964	198	.000	.963	.024 (.022–.027)	.031
22. SEM: Metric Geographical Context	600.363	211	.000	.962	.024 (.021–.026)	.032
23. SEM Scalar Geographical Context	623.959	224	.000	.961	.023 (.021–.026)	.032

* Not tenable

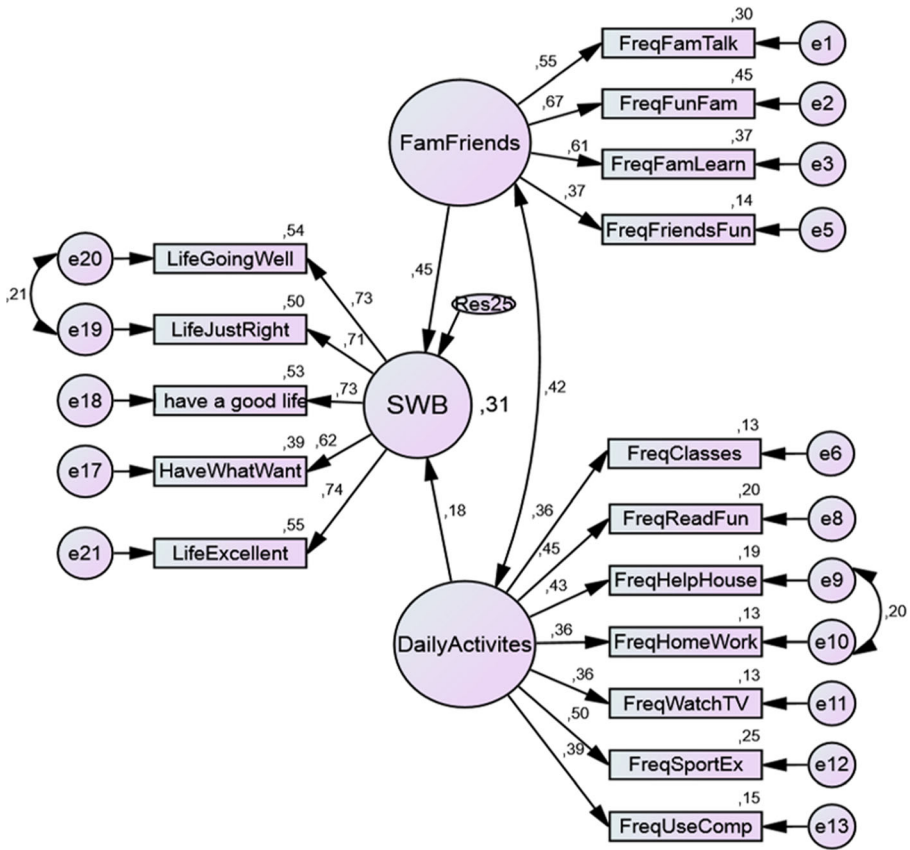


Fig. 1 Overall structural equation model using the pooled sample

be tenable across the age groups (Model 9 in Table 5) and gender (Model 17 in Table 5); however scalar invariance was not tenable as the CFI worsened by more than .010 for age (Model 10 in Table 8) and gender (Model 18 in Table 5). This means that the age groups and gender can be compared by correlations and regression coefficients, but not by mean scores. This finding suggests different answering styles across age groups and gender. Attempts to achieve scalar invariance across the three age groups through the application of partial constraints were unsuccessful, as assessing various combinations of freely estimated items did not yield the acceptable level decrease in model fit. However, when conducting the analysis using only two age groups (10 and 12 years), full metric invariance (Model 13 in Table 5), and partial scalar invariance (Model 15 in Table 5) were obtained by freely estimating two items (“frequency doing homework” and “frequency of doing sport/exercise”). For geographical location, (urban and rural) full metric and full scalar invariance was tenable (Model 23 in Table 5). These findings suggest that the groups (urban or rural) can be meaningfully compared by correlations, regression coefficients, and mean scores.

Table 6 Standardized Regression Weights: (Age Groups - Measurement weights)

Parameter		8-Year Old			10-Year Old			12-Year Old		
		Estimate	Lower	Upper	Estimate	Lower	Upper	Estimate	Lower	Upper
SWB	<---	.172	.062	.282	.492	.366	.614	.443	.332	.547
SWB	<---	.201	.098	.294	.155*	.033	.284	.214	.095	.339
FreqFamilyTalk	<---	.525	.467	.582	.556	.506	.606	.595	.545	.639
FreqFamilyFun	<---	.632	.569	.696	.649	.597	.699	.678	.624	.731
FreqFamilyLearn	<---	.607	.555	.666	.563	.512	.612	.590	.537	.639
FreqFriendsFun	<---	.351	.298	.401	.365	.303	.425	.384	.331	.434
FreqClasses	<---	.369	.311	.419	.359	.294	.421	.312	.249	.369
FreqReadFun	<---	.539	.477	.600	.410	.355	.469	.376	.327	.425
FreqHelpHousework	<---	.534	.462	.608	.434	.376	.488	.413	.359	.467
FreqHomework	<---	.453	.379	.525	.372	.313	.434	.391	.338	.442
FreqWatchTV	<---	.442	.372	.508	.390	.337	.450	.356	.310	.403
FreqSportsExercise	<---	.549	.482	.611	.478	.418	.525	.419	.356	.485
FreqUseComputer	<---	.410	.355	.467	.377	.321	.429	.347	.293	.406
HaveWhatWant	<---	.514	.460	.568	.589	.539	.639	.647	.606	.693
HaveGoodLife	<---	.588	.528	.642	.715	.662	.771	.769	.717	.817
LifeJustRight	<---	.575	.516	.630	.689	.640	.740	.732	.685	.776
LifeGoingWell	<---	.568	.515	.620	.736	.686	.782	.762	.715	.805
ThingsLifeExcellent	<---	.609	.552	.664	.741	.688	.789	.747	.705	.793
SMC	<---	.085	.040	.146	.337	.253	.444	.341	.263	.421

* Significant at <.01; all other loadings are significant at <.001

Table 7 Standardized Regression Weights: (Gender - Measurement weights)

Parameter			Males			Females		
			Estimate	Lower	Upper	Estimate	Lower	Upper
SWB	<---	EngageFamFriends	.445	.358	.536	.464	.384	.538
SWB	<---	DailyActivities	.159	.076	.241	.200	.112	.274
FreqFamilyTalk	<---	EngageFamFriends	.507	.455	.551	.587	.540	.629
FreqFamilyFun	<---	EngageFamFriends	.632	.588	.677	.709	.669	.751
FreqFamilyLearn	<---	EngageFamFriends	.589	.541	.631	.637	.593	.684
FreqFriendsFun	<---	EngageFamFriends	.372	.325	.422	.383	.328	.432
FreqClasses	<---	DailyActivities	.388	.330	.443	.343	.297	.389
FreqReadFun	<---	DailyActivities	.466	.411	.517	.428	.376	.476
FreqHelpHousework	<---	DailyActivities	.447	.397	.508	.423	.371	.476
FreqHomework	<---	DailyActivities	.358	.305	.417	.386	.333	.454
FreqWatchTV	<---	DailyActivities	.386	.329	.446	.346	.302	.396
FreqSportsExercise	<---	DailyActivities	.556	.504	.603	.455	.404	.506
FreqUseComputer	<---	DailyActivities	.406	.356	.455	.366	.316	.412
HaveWhatWant	<---	SWB	.575	.527	.625	.656	.609	.697
HaveGoodLife	<---	SWB	.686	.629	.739	.770	.729	.806
LifeJustRight	<---	SWB	.662	.612	.710	.746	.704	.785
LifeGoingWell	<---	SWB	.677	.625	.725	.773	.736	.808
ThingsLifeExcellent	<---	SWB	.716	.667	.762	.757	.719	.792
SMC	<---	SWB	.287	.223	.370	.326	.261	.394

All items significant at <.001

Contributions towards (urban and rural) by children's participation in daily activities and engagement with family/friends showed significant standardised regression weights across age, gender, and geographical location. This means that the two latent variables (daily activities and engagement with family/friends) made a relevant contribution toward the explained variance in SWB across age, gender, and geographical location (see Tables 6, 7, and 8).

Across age groups, the 10 and 12-year old cohort demonstrated the highest SMC, with both explaining 34% of the variance. Standardised regression weights of the exogenous variables (daily activities and engagement with family/friends) showed the highest value for engagement with family and friends for both the 10-year olds (.49) and 12 years olds (.44). For the 8-year olds, the contribution of engagement with family and friends and participation in daily activities explained 9% of the variance in SWB. For this age group, daily activities presented with a higher contribution (.20) than engagement with family and friends (.17) (see Table 6).

Across gender, the female group presented with the highest SMC, explaining 33% of the variance in SWB; for the male group the latent variables explained 29% of the variance in SWB. Standardised regression weights showed that the

Table 8 Standardized Regression Weights: (Geographical Context - Measurement intercepts)

Parameter			Urban			Rural		
			Estimate	Lower	Upper	Estimate	Lower	Upper
SWB	<---	EngageFamFriends	.465	.401	.521	.428	.273	.575
SWB	<---	DailyActivities	.204	.136	.261	.155*	-.011	.318
FreqFamilyTalk	<---	EngageFamFriends	.560	.516	.600	.529	.480	.573
FreqFamilyFun	<---	EngageFamFriends	.674	.632	.711	.662	.609	.711
FreqFamilyLearn	<---	EngageFamFriends	.628	.589	.664	.565	.515	.619
FreqFriendsFun	<---	EngageFamFriends	.383	.337	.432	.360	.308	.410
FreqClasses	<---	DailyActivities	.368	.311	.415	.335	.282	.384
FreqReadFun	<---	DailyActivities	.462	.412	.513	.428	.368	.486
FreqHelpHousework	<---	DailyActivities	.446	.394	.498	.402	.341	.469
FreqHomework	<---	DailyActivities	.373	.322	.425	.338	.279	.405
FreqWatchTV	<---	DailyActivities	.369	.314	.421	.347	.286	.405
FreqSportsExercise	<---	DailyActivities	.505	.451	.558	.466	.408	.520
FreqUseComputer	<---	DailyActivities	.386	.331	.432	.380	.329	.428
HaveWhatWant	<---	SWB	.637	.592	.675	.580	.524	.631
HaveGoodLife	<---	SWB	.739	.703	.772	.707	.637	.775
LifeJustRight	<---	SWB	.713	.671	.753	.690	.634	.745
LifeGoingWell	<---	SWB	.737	.694	.777	.722	.658	.779
ThingsLifeExcellent	<---	SWB	.747	.709	.782	.720	.660	.771
SMC	<---	SWB	.326	.272	.381	.284	.196	.385

* Significant at the $< .05$; all other values significant at $< .001$

variable 'engagement with family and friends' showed the highest values for both the female group (.45) and male group (.46) (see Table 7).

Across geographical context, engagement with family and friends and participation in daily activities explained 33% of the variance in SWB for the urban group, and 28% for the rural group. Standardised regression weights of the exogenous variables to SWB showed higher coefficients for the engagement with the 'family and friends' variable for both the urban group (.47) and the rural group (.43) (see Table 8).

13 Discussion and Conclusion

The study aimed to ascertain the relation between children's participation in daily activities, engaging with family and friends, and their SWB. The study further to ascertain the extent to which the nature of the relation differs across three age groups (8, 10 and 12), gender, and geographical context (urban and rural).

The study found a significant relation between children's 'engagement with family and friends' and 'participation in daily activities' and their SWB; with the combined influence of 'engagement with family and friends' and 'participation in daily activities' explaining 31% of the variance in SWB. 'Engagement with family and friends'

contributed a higher explained variance in SWB than ‘participation in daily activities’. This finding resonates with that of Sarriera et al. (2018) who found similar significantly high contributions of engagement with family and friends on SWB.

Multi-group SEM analysis revealed the tenability of metric invariance across age and gender, which allowed for meaningful comparisons by correlation and regression coefficients. The exogenous variables made similarly high contributions across all three age groups, with no differences noted across age. The exception was for the 8-year old group, where participation in daily activities presented with a higher contribution to SWB than engagement with family and friends. This result may reveal an age variation in respect of daily activities being a more important consideration than social relationships for younger children. Older children may value social relationships, or the social aspect of activities, more than the younger children. No pronounced variation was noted across gender, with the SWB of males and females presenting with similar patterns of influence of engagement with family and friends and participation in daily activities. The comparisons across geographical context presented with similar trends for the urban and rural group, where ‘engagement with family and friends’ made a higher contribution to SWB than ‘participation in daily activities’. Given that scalar invariance was tenable across these groups, a means analysis was appropriate. Both exogenous variables showed a significantly lower mean score for ‘engagement with family and friends’ ($p < .01$) and ‘participation in daily activities’ ($p < .001$) for the participants from the rural sample.

Given the findings of the study, it is axiomatic that children’s time use is an important factor to consider in relation to their well-being. The need to structure children’s time in formal learning and recreational activities, demands of seeking livelihoods (as is common in developing contexts), and the tension that exists in allowing children free time to be children requires further empirical interrogation. In contemporary contexts even ‘play time’ has become structured, arranged and ‘timed’ according to social status and circumstances. The extent to which time intersects with space is another important consideration. In the current South African context for example, the investment of time in various social spaces is tempered by threats to safety, resources and access, and opportunities, which can be seen as residual effects of macro-factors such as poverty and inequality. Therefore, while children’s time use is indeed a contested concept in so far as the extent and frequency of participation in activities are concerned; there is a case to be made for considering the intersectionality of time with space and how children negotiate this. Time use can, therefore, not be considered in isolation from space, seen as both a site of engagement and as a ‘contextual’ space imbued by the contemporary and historical macro-contexts. The extent to which the historical macro-contexts, especially considering the role of poverty, SES, and inequality, influences children’s time-use activities is an important consideration. This point is particularly relevant given that time use amongst children in South Africa is a remnant of historical oppression and intergenerational disadvantage. Evidence of support for the above contention can be found in qualitative research (Adams and Savahl 2017, 2018; Adams et al. 2017) conducted amongst children in the Western Cape Province of South Africa. These studies found that the extent of children’s engagement with recreational opportunities, community spaces, and natural spaces was influenced by the SES of their community. Children from middle SES communities had more access and could invest more time in a range of activities, while

children from low SES communities were constrained in terms of access and opportunities. While the results were somewhat related to the economic resources of the caregivers, the most salient narratives related to the issue of safety within low SES communities, which the participants believed manifestly influenced their time-use and daily activities.

The significant contribution of engaging with family and friends on SWB is another noteworthy, but unsurprising finding. It was interesting to find that the best fitting model was obtained with a latent variable including three items on 'engaging with the family' (talking, having fun and learning) and only one with friends (having fun). This finding is particularly significant for practitioners working in the area of family wellness as it is suggesting that even at the most basic level, merely increasing the amount of time spent with family members on these activities could potentially enhance SWB; at least for older children. Further research into how the nature and intensity of these engagements influence child well-being could provide useful recommendations for programmes aimed at enhancing family well-being. It should be noted that there are ideological contestations around the concept of 'family time' and the family itself. 'Family time' has oft been idealised and examined through a hegemonic lens, foregrounded in the notion of a nuclear family. Within the South African context this is an important consideration given the 'diversity of family structure' which can be regarded as atypical when compared to western notions of the nuclear family (Daly 2001). Along with the need for positive engagement with family and friends to enhance children's SWB, is that of advocacy for children's rights to be upheld especially in protection from violence and negative family environments, as these are synonymous for some children.

It is important to acknowledge that the Children's Worlds Study did not cover the entire range of activities that children are involved in on a daily basis (Rees 2017b). Moreover, the questions only tapped into frequency of activities as opposed to intensity, which further limits the depth of interpretation (Rees 2017a). Chin and Phillips (2003) put forward a framework to analyse children's time use, focusing on leisure activities, play, and the negative effects of screen-based activities; largely based on western notions. A key point that the authors make is that the mere classification of children's activities by type is not sufficient, but should rather consider intensity, engagement with peers and adults, as well as the context that it takes place in. This should be taken into account when considering the results of the current study. Rees (2017b) further recommends that future research on children's time use should endeavour to include a larger range of activities, and include items in relation to children's work-related activities, which children in low-income countries typically engage in.

It is likely that a reciprocal relation exists between SWB, engagement with family and friends, and children's participation in daily activities. Given that the study only tested a one-way relation, it is recommended that future studies consider the nature of the reciprocal relation.

While the study used a proportionate random sample, we caution against generalizability outside of the sampling frame, given the diversity of childhood experiences in South Africa. To that end, we recommend that further comparative analysis should be conducted with children across various SES groups. Noting that, the Western Cape represents a certain demographic of South Africa that is not typical of the rest of the country – it is recommended that further research using population-based samples

should be conducted. Time use of the ‘African child’ is also becoming increasingly important as governments endeavor to improve developmental trajectories of children across the continent, and strive toward the Sustainable Development Goals. It is, therefore, recommended that researchers advance cross-cultural studies across the continent.

From a social policy perspective, policy initiatives should consider the diversity of ‘childhood’ in South Africa, especially as it relates to the historical ‘situatedness’ of the macro-factors of poverty, deprivation, and social inequality, and how this impacts children’s access to and the nature of their daily activities. Policy initiatives that foreground these imbalances could then be used to leverage practices at the municipal and grassroots level to create opportunities and spaces for children to engage in, regardless of their material position. A good example is evident in the Western Cape Education Department’s Game Changer project (<https://www.westerncape.gov.za/after-school-game-changer/>) that provides children from resource-constrained schools and communities access to after-school programmes focused on enhancing opportunities for engaging in positive sport, cultural, and learning activities. In the final analysis, however, striking a balance between adult-designed and implemented activities, initiated with the ‘best interest of children’ at heart, and an authentic consideration of children’s perspectives on how their time use and participation in daily activities should be managed to best improve their SWB, is critical. If this authentic participation is not activated, we may run the real risks of both ‘over-structuring’ children’s time use, and contribute to further ideological configured notions of the ideal childhood (Savahl et al. 2015).

Acknowledgements The authors would like to acknowledge the financial contribution of the Jacobs Foundation and the National Research Foundation (South Africa) toward this research. We would also like to express our gratitude to Dr Gwyther Rees, UNICEF Innocenti Office of Research and the University of York (Research Director: Children’s Worlds Study), for his invaluable feedback on the manuscript.

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