Social Work/Maatskaplike Werk
An international journal rooted in South Africa
IJenali kazwelonke engcambu zayo ziseMzantsi Afrika
Vol. 62, No. 2, 2026, DOI: https://doi.org/10.15270/62-2-1589

# Social work, child support grants and child care in the first 1,000 days: A case study of disposable nappy expenditure in Calvinia-West, South Africa

**Catherina Schenck[1.1], Nicolette Roman[1.2], Derick Blaauw[2] and Charlotte Nell[3]**

*[1.1] University of the Western Cape, Centre for Interdisciplinary Studies of Children, Families and Society, Bellville, South Africa*
https://orcid.org/0000-0001-5299-5335 *cschenck@uwc.ac.za*

*[1.2] University of the Western Cape, Centre for Interdisciplinary Studies of Children, Families and Society, Bellville, South Africa*
https://orcid.org/0000-0002-4506-437X *nroman@uwc.ac.za*

*[2] North-West University, School of Economic Sciences, Potchefstroom, South Africa*
https://orcid.org/0000-0001-8750-4946 *derick.blaauw@nwu.ac.za*

*[3] Stellenbosch University, School of Public Leadership, Stellenbosch, South Africa*
https://orcid.org/0000-0002-3657-2655 *charlotte@aenv.co.za*

*Article received: 13/05/2025; Article accepted: 15/12/2025; Article published: 20/06/2026*

## ABSTRACT

The first 1,000 days after birth are a critical period in a child's development, as this phase establishes the foundation of the child's physical, cognitive, emotional and social welfare. South Africa's child support grant (CSG), which aims to provide financial assistance to primary caregivers of children in low-income households, therefore has a substantial impact on children's growth and development. A basic good that greatly "dilutes" the value of the CSG is disposable nappies. This case study reports on the spending patterns on disposable nappies by caregivers receiving CSGs during the first 1,000 days of the child. A survey using both quantitative and qualitative questions was administered to 193 caregivers in a Northern Cape township to investigate the purchasing patterns of caregivers using disposable nappies. The results show that caregivers spend close to the equivalent of the CSG on nappies, leaving very little for the nourishment and care of the infant. Recommendations to supplement governmental cash grants are thus made to the social work profession. These include co-designing comprehensive programmes for improving the care of children in their first 1,000 days and

linking the community with the necessary professionals and resources to support these programmes. The study also highlighted the lack social work research in this critical stage of children's lives.

**Keywords:** child support grant; disposable nappies; first 1,000 days

## INTRODUCTION

The first 1,000 days after birth are a crucial stage of human development that can have a lifelong impact on a child's physical, cognitive, emotional and social wellbeing (Adebiyi et al., 2021; Arefadib & Moore, 2018; Mazzuca et al., 2024). It is a period of rapid development and growth, particularly for the brain, and therefore children require consistent access to nutritious food, healthcare, responsive care and protection against harm (United Nations Children's Fund [UNICEF], 2023). If the child's needs are met, a foundation for future wellbeing and optimal development has been established (Adebiyi et al., 2021).

In terms of adequate nutrition, a proper diet in the first 1,000 days is crucial for optimal brain growth and cognitive performance. A child's cognitive abilities and capacity to learn might sustain long-term harm if the child is malnourished at this stage (Beluska-Turkan et al., 2019). Child-support assistance in the form of monetary grants, such as South Africa's child support grant (CSG), is an intervention to help children thrive by making the procurement of nutritional meals and formula possible to families living in resource-constrained environments (Khosa & Kaseke, 2017).

Access to healthcare and healthcare interventions during a child's first 1,000 days is also very important for the child's future health and wellbeing. Regular check-ups, immunisations and other early treatments can help avoid the beginning of illnesses and address concerns about development more quickly (Black et al., 2020). However, it can be difficult for families with few financial resources to afford adequate medical treatment for their children. CSGs can therefore help ease costs and open the door for families to receive the necessary medical care and treatments. This not only contributes to children's physical health over the long term, but also aids in the diagnosis and management of certain developmental delays.

During the first 1,000 days of life, a child's emotional and psychological health establishes the foundation for healthy relationships and emotional regulation later in life. The development of a secure attachment between a child and their caregivers requires adequate nurturing, responsive caregiving and a supportive environment. Nonetheless, these developmental needs are frequently compromised in settings affected by poverty and structural inequality. CSGs can mitigate the financial constraints that may prevent parents from providing the necessary emotional support and nurturing, thus helping to create environments that can still foster positive emotional development and resilience (Department of Social Development et al., 2012).

A profession such as social work, concerned about child care and with the issues of social justice, human rights and socio-economic development, has a critical role to play in the first 1,000 days of the child (Jordan et al., 2014). Despite the fact that social workers' central focus

is often on vulnerable children and families, there is a significant gap in the research literature concerning the role of social workers in the first 1,000 days of a child's life. Health and nutrition scholars have been the major leaders in the research on children's first 1,000 days.

This article, using UNICEF's (2017) lens of the first 1,000 days of the child, guided the research aimed to position social workers as central players in these first 1,000 days, especially in settings where a lack of resources is widespread. We specifically explored how expenditure on disposable nappies by caregivers receiving CSGs in a rural South African community affects households' ability to meet children's needs during their first 1,000 days.

## BACKGROUND

### The contribution of child support grants

The South African government introduced the CSG (with an initial monthly value of R100) in 1998 as a means-tested monthly cash transfer paid to the primary caregivers of children. It is managed by the South African Social Security Agency (SASSA) – a national agency of the South African government tasked with administering the country's social security system for the Department of Social Development (DSD).

Since then, the CSG has become the single largest programme for alleviating child poverty in the country. According to the University of Cape Town's Children's Institute (2023), 13 million out of 20 million children in South Africa (approximately 65%) receive a CSG from birth to the age of 18. South Africa's high unemployment rate has increased overall social dependence (Nyati et al., 2022). For instance, the number of people receiving social grants increased by nearly 300% between 2001 and 2017, compared to 29% growth in the number of people with jobs (Ryan, 2018). The take-up of the CSG has also increased dramatically over the years, and the grant amount is increased slightly each year, more or less keeping pace with overall inflation (Hall, 2023). As of October 2023 (during the time of the study), the CSG's monthly value stood at R510 (SASSA, 2023).[1]

South Africa's CSG is a social-protection tool intended to mitigate the impact of poverty, help caregivers meet children's nutritional and developmental needs, and improve families' overall socio-economic, health and educational outcomes (Granlund & Hochfeld, 2019; Hall, 2023; Khosa & Kaseke, 2017; Nyati et al., 2022). Various researchers (Coetzee, 2014; Fisher et al., 2017; Granlund & Hochfeld, 2019; Molyneux et al., 2016) emphasise the positive effects and transformative potential of such cash grants, which in some cases can even help people to move out of the cycle of poverty by providing families with resources that may be invested in their children's futures.

Studies suggest that children who are exposed to poverty during their formative years are at greater risk of later dealing with learning obstacles, health inequities and restricted economic prospects (Cooper & Stewart, 2021). By providing financial assistance to families with low incomes, CSGs enable caregivers to invest in early education and activities that improve their

[1] During the writing of the article in 2025, the CSG stood at R510.

children's lives and general development. This lays down the groundwork for overcoming the limitations of poverty (Baird et al., 2011; Patel et al., 2015).

Additionally, grants such as the CSG play a crucial role in promoting social fairness and crafting a more promising future for both children and society at large (Khosa & Kaseke, 2017). By providing a safety net for families in need, the CSG reduces the gap in developmental outcomes and fosters a more equitable society (Department of Social Development et al., 2012; Khosa & Kaseke, 2017; Patel et al., 2015).

CSGs also contribute to local economic and community growth. Even though it is a relatively small sum, the CSG is said by some to afford dignity to those living in poverty and open up additional avenues to them for making money (Zembe-Mkabile et al., 2015). These grants stimulate local economies through increased consumer expenditure by directly infusing funds into low-income households. This economic stimulus can lead to the creation of jobs and the improvement of infrastructure, thereby creating environments that, with improved access to educational resources, healthcare facilities and recreational areas, are also more conducive to children's development and wellbeing (Department of Social Development et al., 2012; Khosa & Kaseke, 2017; Patel et al., 2015).

However, it is acknowledged that the CSG is not sufficient and that 7 million out of the 13 million children supported by CSGs in South Africa, still live below the poverty line, which was estimated to be R760 per person per month in 2023. While extensive evidence shows that the CSG improves dignity, reduces hunger, enhances school readiness and supports caregivers' decision-making (Granlund & Hochfeld, 2019; Zembe-Mkabile et al., 2015), its adequacy remains strongly contested, since nearly a third of children in South Africa – 27%, according to the Children's Institute (2023) – are considered stunted.

Additionally, Volmink (2020) found that the CSG is not always used to the child's direct benefit and is generally not enough to meet children's nutritional needs. The reason could be that the grant is frequently "diluted" to meet multiple household needs, shared among several dependants and eroded by rising food prices, unemployment and inadequate access to services. When the CSG must cover food, electricity, transport, educational costs and debts, the amount available for the infant becomes severely diminished. There is substantial evidence that households spend the CSG on a variety of goods including food, education (crèche or school), transport, clothes, funeral policies, electricity, alcohol, social clubs and small businesses (Devereux & Waidler, 2017; Volmink, 2020; Wright et al., 2015). Moreover, Devereux and Waidler (2017) found that, despite the CSG's overall positive impact on households' food security, severe malnutrition is still present among many children in South Africa. Infant and child diets tend to be starch-based and lacking in nutritional variety, with a low intake of fruit, vegetables and protein, which can result in delayed cognitive and physical development (DG Murray Trust, 2024; Volmink, 2020). While there are many possible reasons for this, it does imply that the value of the CSG is inadequate, a finding that is corroborated by the results of this study.

There are also researchers who have raised concerns about the inability of cash transfers to bring about more lasting positive changes in ways that can be seen as truly transformative

(Devereux & Sabates-Wheeler, 2004; Molyneux et al., 2016). In addition, the CSG has been criticised for being tokenistic towards the poor, creating dependency on the state, encouraging the misuse of money and raising the birthrate (Samson et al., 2016; Devereux, 2011). In our study, it was found that the high cost of basic needs for households with babies, such as nappies, can be prohibitive, thereby diluting the value of the CSG and possibly limiting its positive influence. Interestingly, none of the articles referring to the expenditure of the CSG mentions disposable nappies as one of the expenses indicated by the caregivers during the first few years of the child's life.

The diapering of infants is a centuries-old custom practised around the world. Historically, mainly cloth nappies were used. However, with the invention and continual refinement of disposable nappies, this is now the more common consumer choice compared to cloth nappies. It can be argued that the use of nappies is unavoidable when raising an infant, and, as the average potty-training age is around 24 to 36 months, most infants spend the majority of their first 1,000 days after birth in nappies.

**The role of social work in the first 1000 days**

According to UNICEF (2023), in order for children to reach their developmental potential, the following five aspects of their care are crucial: health, nutrition, responsive caregiving, opportunities for learning and exploration, and protection from threats such as violence, toxins and infection. Social work is one of the professions that can contribute to families accessing the needed requirements for a child's development. Social workers can also support families to mitigate factors that impact negatively on their functioning and wellbeing to ensure that the child has the necessary nutrition, nurturing care, safety and opportunities to thrive. Social workers can provide information and emotional support, assess and mitigate risks, and connect families with resources such as financial aid, health services, and early-intervention and community-based programmes. Through both structural support and direct family engagement, social workers help shield families from poverty, protect children from maltreatment and work to ensure a continuum of care that promotes the child's healthy development (Jordan et al., 2014).

Social workers in South Africa implement the developmental approach to social welfare and social work (Jordan et al., 2014). Developmental social work (DSW) is a rights-based approach that is participatory and people-centred, and works in collaboration with the client system and a range of partners and social development sectors (such as health, education and economic development) to promote social and economic inclusion. DSW is oriented towards the empowerment of caregivers, reducing poverty, enhancing livelihoods and advancing human capabilities.

There is a major lack of research and discussion on the role of the social worker and social service professions during the first 1,000 days of the child. For instance, searches in the University of the Western Cape's online database delivered no results where social work interventions in the first 1,000 days of children were explicitly discussed. There are several studies by social work researchers referring to the value of the CSG for the caregivers (Granlund & Hochfeld, 2019; Jordan et al., 2014; Zembe-Mkabile et al., 2015). The majority

of research on children's first 1,000 days has been conducted by scholars in health, nutrition and education. This article begins to fill this gap in the literature by highlighting the role of social workers in the first 1,000 days of the child as well as providing insight into a low-income rural South African community's spending of the CSG on disposable nappies as a critical diluter of the CSG.

## RESEARCH SITE

The study area is the township of Calvinia-West, a low-income rural area in the Northern Cape province of South Africa. In this study, most respondents indicated that they rely heavily on the CSG to fulfil their child or children's basic needs. Since 2019, the researchers have focused on waste generation and management in Calvinia-West, discovering that disposable nappies are one of the major problematic waste fractions being illegally dumped (Schenck et al., 2022; Viljoen et al., 2021). In order to understand why nappies are dumped, the researchers conducted a study on the usage and management of disposable nappies in Calvinia-West. The study was further prompted by the findings of a five-week household waste characterisation study in 2020, which revealed that 15% of the waste coming from the 50 participating households consists of nappies, which is a significant part of total household waste composition (Nell et al., 2022). In fact, the true percentage might be higher, as some households refused to keep nappies for the weekly weighing of the waste. Based on this household waste characterisation study by Nell et al. (2022), it was estimated that the total community of Calvinia-West generate a total of around 450,000 disposable nappies per annum. This result indicated that further research about the cost and management of disposable nappies, clearly a significant household waste item, was required (Nell et al., 2022).

Furthermore, a study conducted by Van Stuijvenberg et al. (2015) on stunting and the nutritional intake of children under the age of six found that 40.5% of children under six in Calvinia-West were stunted, double the national figure of 27% and higher than the global prevalence of 26%. Calvinia-West is therefore an appropriate site for this study.

Calvinia-West is situated in a rural area and is a township adjacent to the main town Calvinia. It consists of both formal housing and an informal settlement, as can be seen in the photographs in Figure 1.

**Figure 1:** ***(a) Informal settlement; (b) Formal housing (Western neighbourhood)***




(Source: Viljoen et al., 2021)

The town of Calvinia, including Calvinia-West, has a total population of 9,680 people (4,634 male and 5,046 female) and approximately 2,509 households. In terms of the town's racial makeup, the vast majority of the population are Coloured (83.0%), followed by White (11.8%), Black African (3.6%), Indian/Asian (0.8%) and other (0.9%). Afrikaans is the main language in the area, spoken by 96.9% of residents (Hantam Municipality, 2022). The closest city is Cape Town, which is about 400 km from Calvinia.

## AIM AND OBJECTIVES

The aim of the study was to explore how expenditure on disposable nappies by caregivers receiving CSGs in a rural South African community affects households' ability to meet children's holistic needs during their first 1,000 days, and to examine the role of social work in addressing families' challenges in this regard through developmental, rights-based and anti-poverty interventions.

The objectives of the study were the following:

1. Determine the proportion of CSGs' monetary value spent on disposable nappies and assess the implications for meeting infants' nutritional, health and developmental needs during the first 1,000 days;
2. Explore caregivers' nappy usage and disposal practices within the socio-economic context of poverty, unemployment and limited access to basic services;
3. Critically reflect on the role of social workers in supporting caregivers during the first 1,000 days of a child's life that address both immediate caregiving needs and long-term child-development outcomes in resource-constrained communities.

## RESEARCH METHODOLOGY

A case study research design was used including a survey, observations, member checking sessions with the community and the municipality, and mapping illegal dumping. Yin (2014) emphasised the value of using multiple data-collection methods when doing a case study. In this article we only report on the data collection using the survey. A survey containing both quantitative and qualitative questions was administered to 193 Calvinia-West residents to investigate the usage and management of disposable nappies. The questionnaire was adapted from the one developed by the One Health Forum (OHF) concerning the effect of dumped absorbent hygiene products (AHPs) in the environment in unserved rural areas. The questionnaire has been successfully used in previous studies by Acker-Cooper et al. (2023), Nell et al. (2024) and Schenck et al. (2023a, 2023b). The research team trained 10 young people from the community who had completed Grade 12 (secondary school) the previous year as fieldworkers. These young people were part of a support programme of an NGO, Beter Hantam Trust, operating in the area. Their supervisor oversaw the data collection, as the fieldwork was regarded as both a learning and income-generating opportunity. The use of the young community members had its benefits, as they knew the community and had easy access to households.

The researchers divided Calvinia-West into five sections and each section was allocated to two fieldworkers in order to prevent households from being interviewed more than once. The

fieldworkers were instructed to visit each house that has one or more nappy-wearing babies or infants, and to interview the primary caregiver, thus constituting a subset of the total sample of people receiving a CSG in Calvinia-West. Within this subset, random available and willing sampling was employed by the fieldworkers within each of the sections allocated to them. The fieldworkers visited households in the late afternoon as well as over weekends to ensure the inclusion of working caregivers. The inclusion criteria used were the following:

- Only caregivers of nappy-wearing babies should be interviewed;
- The caregiver should be 18 years or over;
- If the mother of the baby was under 18 years old, the child's grandparent or another adult member of the household caring for the child was interviewed.

Fortunately, since the research team has been active in Calvinia-West since 2019, they are well known to the municipality, and to the NGO Beter Hantam Trust, supporting the fieldworkers and the community at large.

The survey results were captured in Microsoft Excel by the NGO's administrative officer. The quantitative data were analysed in Microsoft Excel to calculate and illustrate the descriptive statistics and relevant ratios, and the qualitative data were processed using thematic analysis (Braun & Clarke, 2006). Some of the qualitative data were also used as clarification of and in support of the quantitative data.

To validate the aggregated findings of the study, a member-checking session was held on 26 June 2023 to explore the credibility of the survey results and to clarify some of the data the researchers were not clear about. In addition, the researchers also visited shops in Calvinia and Calvinia-West where nappies are sold to determine the brands and prices of the disposable nappies available to the community.

One major limitation of the study is that total household income and expenditure were not explored, which could have informed us what portion of the household income consists of the CSG and what the money is spent on.

The study received ethical clearance from the Human and Social Sciences Research and Ethics Committee from the University of the Western Cape (number HS22/1/2). According to the ethical protocols, consent forms were completed with each caregiver and they were provided with a detailed information document explaining, among other things, their right to withdraw.

## RESULTS

### Biographical data of respondents

Interviews were conducted with the primary caregivers of nappy-wearing children. Of the respondents, 92% were female and 8% were male. The average age of the respondents was 30.6 years, and ranged between 18 and 79 years. Older caregivers were usually grandparents taking care of the children. No respondents were below the age of 18 as ethical clearance was not obtained to interview persons under the age of 18.

On average, the respondents' households consisted of 5.74 people living together in the same house or informal dwelling, with a range of 2–12 persons per household. According to Statistics South Africa (StatsSA, 2021, 2022), in 2021 the average South African household size was 3.34 persons, with the largest percentage of households containing two generations (42.1%), and a significant percentage containing three generations (13.6%).

Calvinia-West's average household size is therefore significantly larger than the average South African household size. Acker-Cooper et al. (2023) from the OHF reported on similar studies in rural KwaZulu-Natal, Mpumalanga and Limpopo provinces, where the average rural household size was as high as 6.2 persons per household.

Regarding employment status, the majority of primary caregivers (70%) were unemployed. Only 7% indicated permanent employment, with 23% either self-employed or in part-time employment. Nationally, only 14% of CSG receivers are formally employed (Dikoko & Patel, 2023). Heads of households had a higher employment rate than that of the primary caregivers (24% were permanently employed), but unemployment was still very high at 49%, with the rest either employed part time (15%), employed on a contract basis (10%), self-employed (1%) or retired (1%).

On average, only 1.38 persons in each household were employed on either a full-time or part-time basis, while on average having to care for 5–6 persons. In terms of the number of employed household members, answers ranged from 0, where no one in the household works (n = 31), to families where four members are in employment (n = 3). Employment opportunities in the area are limited; full-time positions mentioned were in the municipality, the clinic, nature conservation (SANParks), the butchery and other retail shops. Part-time employment positions were indicated as farmworkers, Expanded Public Works Programme (EPWP) workers, community development workers (CDWs) and cleaners. The EPWP and CDW are government-funded job-creation programmes that create temporary jobs that provide incomes for communities (Cooperative Governance and Traditional Affairs, 2019).

**Reception of state grants**

South Africa has one of the most expansive social grant systems in the world (Dikoko & Patel, 2023; Patel, 2023). Currently, approximately 47% of the South African population receives government support, of which 19 million people are permanent beneficiaries and about 10 million people receive a temporary social relief of distress (SRD) grant. The SRD grant was introduced during the Covid-19 pandemic for working-age adults who do not receive formal social protection such as unemployment insurance, and for those engaged in informal work. However, CSGs make up the majority of grants provided by the government (Patel, 2023).

In this study, 97% of caregivers indicated that they are grant dependent (n = 185). This aspect of the findings corresponds to other studies of caregivers of nappy-wearing babies in South Africa, where almost all caregivers were also grant dependent (Acker-Cooper et al., 2023; Nell et al., 2024; South African Cloth Nappy Users, n.d.; Schenck et al., 2023a, 2023b).

It was further determined that each participating household receives, on average, 2.61 social grants, which may consist of a combination of any of the available state grants. Interestingly, one family participating in the study received eight grants.

Among the 188 respondents who answered the question, a combined total of 380 CSGs, 47 old-age grants and 29 disability grants are received. There were also 23 respondents who receive retirement benefits, which are separate from SASSA-allocated grants.

The total number of CSGs received by the 188 respondents who answered the question is 380, which equates to approximately two CSGs per household. The value of one CSG at the time of the study (2023) was R510 (31.50 USD), which means that the average household receives at least R1,000 (51.76 USD) per month from CSGs.

**Nappy usage**

***Type of nappy usage***

It was no surprise that 97% (n = 185) of caregivers indicated using disposable nappies, colloquially referred to as "Pampers" or "Kimbies" (current and discontinued brand names of disposable nappies), and only 3% (n = 5) make use of both cloth and disposable nappies. Only one respondent indicated using only cloth nappies.

***Number of nappy-using children per household***

Based on participant responses, an average of 1.3 children per household use nappies, which is similar to other South African studies (Acker-Cooper et al., 2023; Schenck et al., 2023b).

***Length of nappy usage***

It was determined that, on average, children in this study are using nappies until the age of 16.83 months, with a range of 11–36 months. In this study, five households indicated that their children have worn nappies for 36 months or longer. Although the average across all respondents indicated an average of approximately 17 months, the largest group of respondents (43%) indicated that nappies are worn for between 23 and 35 months.

According to the South African Cloth Nappy Users (SACNU, n.d.), the average length of time for babies to wear nappies is 30 months. Nappies are worn for a shorter period in this study area in comparison to the national average. The study by Schenck et al. (2023a) conducted among low-income areas in the Kruger to Canyons Biosphere Region also determined that the babies in those areas on average wear nappies for a shorter amount of time (18 months) than the national average.

Prior to the member-checking session, the researchers were uncertain whether the question was understood correctly among those who indicated that they potty-train their children at around 11 months of age. However, the participants confirmed that, because of the high cost of disposable nappies, caregivers will often potty-train babies as young as 11 months.

***Number of nappies used per day***

The 193 respondents were also asked to provide an estimate of how many nappies they use per day per child, for which the average was calculated. On average, 4.3 nappies per day per child are used.

There were 193 households interviewed, with an average of 1.3 nappy-using babies per household, and with each baby using an average of 4.3 nappies per day. The following calculation can thus be made from these average values:

193 households × 1.3 children = 251 children × 4.3 nappies = 1,079 nappies per day

Thus on average, 1,079 nappies are generated and disposed by the 193 surveyed households in Calvinia-West each day, a significant number.

In response to the question regarding whether caregivers reuse disposable nappies, only a few caregivers (5%; n = 9) indicated doing so, but the way this was done was not explored.

***Types of nappies available to purchase in the community***

Because of the popularity of disposable nappies, caregivers may not even be aware of available alternatives. The question was therefore posed to respondents whether they know if cloth nappies are available to buy in Calvinia or Calvinia-West.

The vast majority of respondents (74%) indicated only being aware of the availability of disposable (and not both disposable *and* reusable) nappies. When the availability of cloth nappies was discussed during the member-checking session, it was clarified that cloth nappies are available at major chain stores, but not at local spaza[2] shops. The cloth nappies that are available for purchase are the flat white terry-towel nappies that require folding and pins. Modern, shaped cloth nappies are not available for purchase at any shops in Calvinia or Calvinia-West.

***Reasons for preferring disposable nappies***

Reasons for the use of disposable nappies were explored. This was an open question where respondents could explain their reasons. The word cloud below (Figure 2) summarises the responses.

[2] Spaza shops are informal convenience shops typically found in townships in South Africa.

**Figure 2:** ***Respondents' reasons for preferring disposable nappies***




Words like *comfort*, *convenience* and *easy* ("gemaklik", "gerieflik" and "maklik") were the major words used to describe the reasons for using disposable nappies. Respondents also indicated believing that disposable nappies are *better for the baby* ("beter vir die baba") and *it saves money* ("spaar"). The caregivers explained that using disposable nappies is the cheaper option in comparison to reusable nappies. After buying disposable nappies at the start of the month, no additional expenses such as water, electricity or soap to wash reusable nappies are necessary.

The majority of caregivers further indicated their belief that disposable nappies do not cause nappy rash and that they are able to clean the baby quicker: *It is easier for me and my child, I get him clean quickly and he is comfortable in it* ("Dit is makliker vir my en my kind, ek kry hom gou skoongemaak en hy is gemaklik in dit"). Older caregivers, like grandmothers, also find it easier to take care of the baby when using disposable nappies: *It is so much more convenient. I am old and cannot wash cloth nappies daily anymore* ("Dit is veel geriefliker. Ek is al oud en kan nie meer daagliks lapdoeke uitwas nie").

Some respondents mentioned that societal pressure also plays a role: *All the babies in my group of friends use disposable nappies, which spurs me on to use it* ("Al die babas in my vriendekring gebruik weggooidoeke, wat my aanspoor om dit te gebruik").

The use of disposable nappies also keeps the caregiver from having to deal with the stool: *I don't want to make my hands dirty (*"Wil nie hande vuil maak nie").

The importance of using time efficiently also emerged: *[I don't have] time to wash dirty nappies* ("[ek het nie] tyd om vuil doeke te was nie"). Dealing with cloth nappies is seen as time-consuming and an effort: *It is not such a mission as with cloth nappies that still have to be washed* ("Dit is nie so 'n gesukkel soos met lapdoeke wat nog moet gewas word nie"), and disposable nappies are seen as *quick and effortless* ("vinnig en sonder moeite").

In total, less than half of the households have running water inside their houses, confirming the suspected lack of indoor access to water, which would certainly complicate using reusable nappies. The respondents confirmed they have access to water daily, but not necessarily

running water inside the house for household purposes. Further details on sanitation were shared during the member-checking session.

***Spending patterns on disposable nappies***

Dikoko and Patel (2023) and Volmink (2020) confirm that most caregivers spend the CSG on buying food for the child, but that they also have to cover expenses using the CSG such as debts, funeral policies and transport, as well as nappies if the child is not yet potty-trained. The majority of respondents buy packs of disposable nappies from well-known retail shops in Calvinia such as Spar, PEP and OK. During the member-checking session, it was confirmed that nappies are mainly bought from the aforementioned retail shops at the start of the month and on reception of the CSG, depending on where it is the cheapest or on special. Spaza shops in Calvinia-West were also listed as places where small quantities of unknown brands of nappies can be bought when additional nappies are needed.

The results further show that 77% of caregivers who are also the CSG receivers, usually the children's mother, take on the responsibility of buying the nappies. In some households, fathers took on this task, or the fathers would buy the nappies only when mothers were unable to do so on a particular day.

***Preferred nappy brands used***

Interestingly, although nappies are colloquially referred to as "Pampers" or "Kimbies" by many respondents, the most popular brand bought by the respondents is Huggies, with Cuddlers second and Pampers third. Under "other", brands such as Cuddlesome and Canbebe, and the nappies branded by the retailer such as PEP stores and Ackermans, were mentioned. It was reiterated that the name "Kimbies" is a general term used to refer to any disposable nappies. Kimbies nappies have not been produced since 1978, but the same manufacturer now produces Huggies. It is interesting that the brand is still being referred to in the study area so many years after being discontinued.

It was confirmed during the member-checking session that Huggies is the most popular brand because of the nappies' *softness and comfort*. It is also believed by the participants that these nappies have better absorption than other brands, and can therefore be worn for a longer period of time.

***Monthly expenditure on nappies***

Regarding spending patterns, the following calculations can be made based on the study results. It was determined that, on average, each child in the study area uses 4.3 nappies per day. This equates to around 140 nappies per child per month. There are three different types of Huggies nappies (the majority of respondents' preferred brand) in South Africa: Dry Comfort, Gold and Extra Care, from least to most expensive. The following prices for Huggies Dry Comfort nappies, presumably the most commonly used type among the respondents as it is the most affordable, were found online for Spar (PEP does not sell Huggies and prices for OK could not be found online).

**Table 1:** ***Online prices of Huggies Dry Comfort at Spar supermarkets as of 2023***

| | | Spar | |
|---|---|---|---|
| **Nappy size** | **Number of nappies per pack** | **Price per pack** | **Price per nappy** |
| Huggies Size 1 | 96 | R249.99 | R2.60 |
| Huggies Size 2 | 66 | R210.99 | R3.20 |
| Huggies Size 3 | 76 | R249.99 | R3.29 |
| Huggies Size 4 | 66 | R249.99 | R3.79 |
| Huggies Size 5 | 56 | R249.99 | R4.46 |
| | | **Average** | **R3.47** |

At an average price of R3.47 (0.18 USD) per nappy, parents spend approximately R485.80 (25.59 USD) per month on the 140 nappies required for one child. If the only household income is a CSG of R510 (31.50 USD) per child, nearly the entire grant goes towards buying nappies, leaving little to no funds available for the child's other basic needs such as food and healthcare, let alone other household expenses such as food, transport, funeral policies and debts (Volmink, 2020). Alternative modern cloth nappies (colourful and shaped like disposable nappies) have now entered the market. According to the South African Cloth Nappy Users (SACNU) (n.d.), the modern cloth nappy can save a family R12 000 over a period of 30 months. This calculation was done by SACNU in 2023 at the time of our study.

Concerningly, in their studies of caregivers' experiences of cash transfers in alleviating childhood poverty, Volmink (2020) and Zembe-Mkabile et al. (2015) found that the food bought by caregivers receiving CSGs mostly consists of starch-based, carbohydrate-loaded foods. Schenck et al. (2022) and Zembe-Mkabile et al. (2015) also found that the food relied on by the majority of respondents in low-income areas is insufficient for necessary dietary diversity, and that many caregivers frequently run out of food before the end of the month. In addition, authors such as Makwela et al. (2024) and Vitalis et al. (2021) confirm that less than 40% of mothers in South Africa breastfeed their children after the first month of the baby's life, meaning they need to buy formula milk and other food to feed the babies. This is the lowest rate of breastfeeding on the African continent. It was also mentioned that breastfeeding rates among the Coloured community in South Africa are generally lower than in other groups, with a high prevalence of the early introduction of complementary foods and liquids. Few mothers practise exclusive breastfeeding for the recommended first six months. The decision to stop breastfeeding is related to cultural beliefs, socio-economic conditions (having to go back to work or school) and inconsistent advice given to the new mothers (Vitalis et al., 2021). It is worth noting that during the 2022/2023 financial year, 150,000 girls in South Africa between the ages of 10 and 19 years of age gave birth (South African Government News Agency, 2024).

Respondents in this study were asked to share how much they estimate spending on nappies per month. According to respondents' estimates, an average of R354 (18.65 USD) per month is spent on nappies per household per child, with a range of R120–R1,100 (6.23–57.95 USD). We assume that some households' estimate includes the total spent on more than one baby's

nappies. The average is more or less the equivalent of two packs of nappies per month, which is similar to what has been found in other recent studies.

In a study by Schenck et al. (2023a), respondents said they spent an average of R385 (20.28 USD) per month on nappies. In another study by Schenck et al. (2023b), respondents indicated spending an average of R437 (23.02 USD) per month on nappies, while respondents in a study by Acker-Cooper et al. (2023) spent an estimated R396 (20.86 USD) per month on nappies on average.

The discussion that follows will provide further context and analysis of these results, followed by a detailed discussion of the findings and results that complement the quantitative results and findings.

## DISCUSSION

The results of the study show that disposable nappies are used first and foremost for their perceived comfort and convenience. They are considered more fashionable and better for the health and comfort of the baby than cloth nappies. To use cloth nappies as an alternative to disposable nappies is not a high priority for caregivers in the study area, despite the fact that the majority of caregivers are unemployed and that 97% are dependent on CSGs. Using the CSG to buy nappies implies that not much of the grant is left once nappies have been bought – in fact, only about R142. The SACNU (n.d.) 2023 calculations show that using the modern reusable cloth nappies can free up more money.

Cowling (2023) used the poverty lines provided by Statistics South Africa and concluded that, in 2023, a person residing in South Africa with access to less than R1,058 (around USD 55.23) per month could be considered poor. In addition, someone with less than R760 (around USD 38.68) per month available specifically for food was living below the national poverty line (Cowling, 2023). A crude comparison would thus suggest that R142 is only about 19% of the amount needed not to be considered poor in terms of the food poverty line.

On average, every household in the study receives more than two government grants per month and there is on average one person per household that works (including full-time, part-time and contract positions). Using the same poverty lines suggests that, in a hypothetical household with four children under the age 18, where two of the four children are no longer using nappies and the household receives four CSGs every month, there would be R1,084 available for food for all four children every month. This is still only 36% of what is needed for these children not to be considered "food poor" – which is an improvement upon 19% but still leaves four children in food poverty.

We acknowledge that there is a distinct possibility that cross-subsidisation from other social grants or income sources (such as renting out a backyard shack or other formal or informal employment) may further improve the above picture. However, as the focus is on the first 1,000 days of a child's development, when the use of nappies is at the maximum, it is important to highlight various possible scenarios, commencing with the worst-case scenario as mentioned above where only R142 per month is available for food. Although this is a crude analysis, it still makes the important point that the monetary value of the CSG is not nearly enough to raise

a child and must necessarily be combined with other sources of income such as formal or informal work, maintenance or donations from family members.

A more nuanced discussion would be to compare the available R142 with the average monthly cost of a basic nutritious diet for a child. In 2022 UNICEF estimated this to be R827 (UNICEF, 2023). This reveals that R142 is only 17% of what is needed to provide a basic nutritious diet for a child – similar to the 19% obtained using the adult food poverty line as metric. Using the same hypothetical situation of four children, of which two are no longer wearing nappies, the remaining R1,084 available for food covers only 33% of the amount needed to ensure that all four children have a basic nutritious diet.

The above results are echoed by UNICEF, whose findings on household size, number of children per household and income confirm the presence of widespread child poverty in South Africa (UNICEF, 2023). In addition, many household members are dependent on social grants that may not even be specifically targeted to them (UNICEF, 2023). Furthermore, social grants must be supplemented by other income sources as well – leading to income dilution in the process (UNICEF, 2023).

Apart from the direct opportunity cost described above, the indirect long-term implications of these findings are of equal (if not bigger) importance, particularly given the established evidence on the fundamental importance of the first 1,000 days of the child's life. This time frame represents a critical window of opportunity in which diet and care serve as fundamental building blocks of a child's long-term health and overall wellbeing. If adequate diet and care are provided during this pivotal period, long-lasting negative effects on the physical, cognitive and socio-emotional development of the child can be substantially reduced. However, if a household has only R142 per month to care for a child, providing the necessary diet and care will not be possible and the implications of this for the child may be devastating in many different spheres necessary for development, including nutrition, medical care, clothing and shelter, and general care. This is an important area of interest for future studies.

## CONCLUSION AND RECOMMENDATIONS

Through UNICEF's lens of the first 1,000 days of the child, this study provided insight into a low-income rural South African community's spending on nappies within the context of high levels of unemployment and resultant dependency on a social grant. The case study area (Calvinia-West) is a low-income rural area in South Africa's Northern Cape province with high levels of stunting. As with many other low-income areas in South Africa, almost all the respondents rely heavily on the CSG to meet their children's basic needs. In this light, the study explored what proportion of CSGs is spent on disposable nappies and the possible implications of this expense during the first 1,000 days of a child's life.

This cross-sectional study on 193 caregivers of nappy-wearing infants in Calvinia-West raised several serious concerns. The results showed that 70% of caregivers are unemployed and 97% are grant dependent, and almost all (97%) buy disposable nappies, mainly in the belief that disposable nappies are convenient and fashionable, and provide the most comfort for the baby. The preference for disposable nappies instead of reusable cloth ones is likely also because of the respondents' lack of access to water and affordable electricity. Among the 193 households

interviewed, an average total of 1,079 disposable nappies are produced each day, meaning an average weekly total of 7,553 nappies is collected by the municipality and dumped on the badly managed local landfill site or on illegal dumpsites. The results also showed that caregivers spend almost the entire monetary value of CSGs on nappies for on average 17 months of the child's life, a period during which children need nutritious food, healthcare and stimulation for optimal physical, mental and socio-emotional development.

In the context of overwhelming poverty as experienced in the study community, it is clear that the CSG is not adequate on its own to meet even the most basic needs of its beneficiaries, let alone the extent of what children need in terms of nutrition, healthcare, education, shelter and clothes. The results confirm the findings of UNICEF (2023) and Van Zyl and Van Wyk (2021) that the presence of children and poverty in a household is an important area for urgent reflection and analysis. Important policy implications include the need for anti-poverty policies that are child-specific. UNICEF (2023) also quotes Mahatma Gandhi, who said that a nation's greatness can be measured by how it treats its weakest members. How a nation defines the wellbeing of its weakest members – such as its children – is also a critical marker of its worth.

In this paper we are not arguing that the caregivers should not use disposable nappies. We used the example of the spending on disposable nappies as a household expense, which has never been mentioned before in research studies, as an example of the insufficiency of the CSG as a standalone intervention. The first 1,000 days of children's lives needs the collaborative commitment from government and social services, health and education professions to introduce holistic anti-poverty strategies including job- and income-generation programmes, improved education and nutrition, health and food-security programmes.

From a social work perspective, evidence-based and co-designed policies and initiatives should be developed to improve the care of the child in the first 1,000 days after birth and beyond. Social workers have a role to play in assisting families and communities towards responsive caregiving and linking communities with professionals such as nutritionists to support mothers to breastfeed for at least the first six months, designing affordable high-protein diets, developing food gardens, feeding schemes, increasing food security, and the planning and preparing of healthy affordable food.

Social workers also have a role to play in co-designing initiatives with communities such as financial planning, if possible and practical, introducing modern cloth nappies, and promoting savings groups, educational stimulation and access to entrepreneurial opportunities.

Co-designing these initiatives requires a developmental and systemic view. There is a clear need for collective action that gets all stakeholders involved, and ensures they are committed to and responsible for finding solutions, including the government, the private sector, community groups, religious organisations, activists and academics (Lavender et al., 2006; Lewallen et al., 2015; Slade et al., 2020; Van Zyl & Van Wyk, 2021).

An important aspect this study was also to highlight the lack of research on the roles and responsibilities of social workers during the first 1,000 days of the child. It is surprising and concerning that social workers have not yet actively contributed their expertise in this regard.

Research studies investigating social workers' roles and responsibilities towards children and families in the first 1,000 days of the child is urgently needed.

## AUTHOR BIOGRAPHIES

**Catherina Schenck** is Professor and DSTI/NRF/CSIR Chair in Waste and Society in the Centre for Interdisciplinary Studies of Children Families and Society at the University of the Western Cape. Her field of specialisation is societal issues related to waste and waste management. She collected the data and wrote the article during 2023- 2024.

**Nicolette Roman** holds a PhD in Psychology, is a Senior Professor and South African Research Chair in the study of families. She is the Founder and Director of the Centre for Interdisciplinary Studies of Children, Families and Society (CISCFS) at the University of the Western Cape and a Visiting Professor at the University of Huddersfield in the UK. She has received numerous awards as a social scientist. Her research focuses on family capabilities and social cohesion. She wrote parts of the article specifically regarding the first 1,000 days of children during 2024.

**Derick Blaauw** is a Professor in the School of Economic Sciences at the North-West University, South Africa. His field of specialisation is informal employment and labour markets. He assisted with the interpretation of some of the study's empirical data, wrote relevant sections of the article and provided editorial input for the complete article during 2024.

**Charlotte Nell** is a PhD candidate from the School of Public Leadership at the University of the Stellenbosch and a Solid Waste Management Consultant at Aquila Environmental. Her interest and areas of expertise include minimisation, data accumulation and analysis. She collected data, assisted with data analysis and the writing of the article during 2023-2024

## REFERENCES

Acker-Cooper, C., Schenck, C., Jordon, C., Van Wyk, I., Uys, M. T., Rose, C., & Roxburgh, L. (2023). *A comparative provincial assessment of disposable nappies or diaper system dynamics*. (Unpublished report). One Health Forum.

Adebiyi, B. O., Goldschmidt, T., Benjamin, F., Sonn, I. K., & Roman, N. V. (2021). Exploring the perspectives of South African parents and primary caregivers living in low-income communities on what children need to thrive within the first 1000 days of life. *Children, 8*, 483. https://doi.org/10.3390/children8060483

Arefadib, N., & Moore, T. G. (2018). *The importance and lifelong benefits of the early years: An analysis of the evidence.* Victoria: Centre for Community Child Health, Murdoch Children's Research Institute. https://doi.org/10.13140/RG.2.2.32675.17447

Baird, S., McIntosh, C., & Özler, B. (2011). Cash or condition? Evidence from a cash transfer experiment. *Quarterly Journal of Economics*, *126*, 1709–1753. https://doi.org/10.1093/qje/qjr032

Beluska-Turkan, K., Korczak, R., Hartell, B., Moskal, K., Maukonen, J., Alexander, D. E., Salem, N., Harkness, L., Ayad, W., Szaro, J., Zhang, K., & Siriwardhana, N. (2019). Nutritional gaps and supplementation in the first 1000 days. *Nutrients*, *11*(12), 2891. https://doi.org/10.3390/nu11122891

Black, M. M., Trude, A. C. B., & Lutter, C. K. (2020). All children thrive: Integration of nutrition and early childhood development. *Annual Review of Nutrition*, *40*(1), 375–406. https://doi.org10.1146/annurev-nutr-120219-023757

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101.

Children's Institute. (2023). *Report: Review of child poverty and value of the child support grant*. University of Cape Town. https://ci.uct.ac.za/articles/2023-10-10-new-research-report-review-child-poverty-and-value-child-support-grant

Coetzee, M. (2014). Do poor children really benefit from the child support grant? *Econ 3x3*. https://www.econ3x3.org/article/do-poor-children-really-benefit-child-support-grant

Cooper, K., & Stewart, K. (2021). Does household income affect children's outcomes? A systematic review of the evidence. *Child Indicators Research*, *14*(3), 981–1005.

Cooperative Governance and Traditional Affairs. (2019). Restoring dignity through job opportunities provided by EPWP and CWP. *COGTA.* https://www.cogta.gov.za/index.php/2019/04/25/restoring-dignity-through-job-opportunities-provided-by-epp-and-cwp/

Cowling, N. (2023). National poverty line in South Africa 2023. *Statista*. https://www.statista.com/statistics/1127838/national-poverty-line-in-south-africa/

Department of Social Development, South African Social Security Agency & United Nations Children's Fund. (2012). *The South African child support grant impact assessment: Evidence from a survey of children, adolescents and their households*. UNICEF South Africa.

Devereux, S. (2011). Social protection in South Africa: Exceptional or exceptionalism. *Canadian Journal of Development Studies*, *32*(4), 414–425.

Devereux, S., & Sabates-Wheeler, R. (2004). *Transformative social protection.* (IDS Working Paper 232). Institute for Development Studies. https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/4071

Devereux, S., & Waidler, J. (2017). *Why does malnutrition persist in South Africa despite social grants?* (Food Security working paper series no. 001). South Africa: DST-NRF Centre of Excellence in Food Security.

DG Murray Trust. (2024). Double-discounted list of 10 budget-friendly food items. *DG Murray Trust.* https://dgmt.co.za/wp-content/uploads/2024/03/Change-Ideas-Policy-Brief-FILLING-THE-FOOD-GAP-final-2-digital.pdf

Dikoko, V., & Patel, L. (2023). *Social grants and livelihoods: An analysis of NIDS waves 1 and 5 (2008 and 2017) and NIDS-CRAM wave 1 and wave 5 (2020 and 2021)*. Centre for Social Development in Africa. https://www.uj.ac.za/wp-content/uploads/2023/02/csda-_-infographic-grantsandlivelihood-_-a4-_-jan-2023-_-8.pdf

Fisher, E., Attah, R., Barca, V., O'Brien, C., Brook, S., Holland, J., Kardan, A., Pavanello, S., & Pozarny, P. (2017). The livelihood impacts of cash transfers in Sub-Saharan Africa: Beneficiary perspectives from six countries. *World Development*, *99*, 299–319. https://doi.org/10.1016/j.worlddev.2017.05.020

Granlund, S., & Hochfeld, T. (2019). 'That child support grant gives me powers' – Exploring social and relational aspects of cash transfers in South Africa in times of livelihood change. *Journal of Development Studies*, *56*(6), 1230–1244. https://doi.org/10.1080/00220388.2019.1650170

Hall, K. (2023). *Child support grant. Statistics on children in South Africa*. University of Cape Town. http://childrencount.uct.ac.za/

Hantam Municipality. (2022). 5th Generation Integrated Development Plan 2022/23 – 2026/27. *Hantam Municipality*. https://www.hantam.gov.za/wp-content/uploads/2022/07/Hantam-Final-IDP-2022-2023.pdf

Jordan, N., Patel, L., & Hochfeld, L. (2014). Early motherhood in Soweto: The nexus between the child support grant and developmental social work services. *Social Work/Maatskaplike Werk, 50*(3), 392–409. https://doi.org/10.15270/50-2-406

Khosa, P., & Kaseke, E. (2017). The utilisation of the child support grant by caregivers: The case of Ba-Phalaborwa municipality in Limpopo province. *Social Work/Maatskaplike Werk*, *53*(3), 356. https://doi.org/10.15270/53-3-575

Lavender, T., McFadden, C., & Baker, L. (2006). Breastfeeding and family life. *Maternal & Child Nutrition*, *2*(3), 145–55. https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1740-8709.2006.00049.x

Lewallen, T., Hunt, H., Potts-Datema, W., Zaza, S., & Giles, W. (2015). The whole school, whole community, whole child model: A new approach for improving educational attainment and healthy development for students. *Journal of School Health*, *85*, 729–739. https://doi.org/10.1111/josh.12310

Makwela, M. S., Mashaba, R. G., Ntimana, C. B., Seakamela, K. P., & Maimela, E. (2024). Barriers and enablers to exclusive breastfeeding by mothers in Polokwane, South Africa. *Frontiers in Global Women's Health*, 5. https://doi.org/10.3389/fgwh.2024.1209784

Mazzuca, G., Artusa, S., Pietrobelli, A., Di Cara, G., Piacentini, G., & Pecoraro, L. (2024). The future for the children of tomorrow: Avoiding salt in the first 1000 days. *Children*, *11*(1), 98. https://doi.org/10.3390/children11010098

Molyneux, M., Jones, W. N., & Samuels, F. (2016). Can cash transfer programmes have 'transformative' effects? *Journal of Development Studies*, *52*(8), 1087–1098. https://doi.org/10.1080/00220388.2015.1134781

Nell, C., Schenck, C., Blaauw, D., Grobler, L., & Viljoen, J. M. M. (2022). A three-pronged approach to waste composition determination. *Journal of Environmental Management*, *303*, 114203. https://doi.org/10.1016/j.jenvman.2021.114203

Nell, C., Schenck, C. J., Joubert, J. W., Chitaka, T. Y., & De Witt, M. P. (2024). Disposable diapers usage, disposable practices and quantity estimation in rural areas. *Environmental Challenges,* 16, 101001. https://doi.org/10.1016/j.envc.2024.101001

Nyati, L. H., Patel, L., Haffejee, S., Sello, M., Mbowa, S., Sani, T., & Norris, S. A. (2022). Context matters—Child growth within a constrained socio-economic environment. *International Journal of Environmental Research and Public Health*, *19*, 11944. https://doi.org/10.3390/ijerph191911944

Patel, L. (2023). 47% of South Africans rely on social grants – study reveals how they use them to generate more income. *The Conversation*. https://theconversation.com/47-of-south-africans-rely-on-social-grants-study- reveals-how-they-use-them-to-generate-more-income-203691

Patel, L., Knijn, T., & Van Wel, F. (2015). Child support grants in South Africa: A pathway to women's empowerment and child well-being? *Journal of Social Policy*, *44*(2), 377–397. https://doi.org/10.1017/S0047279414000919

Ryan, C. (2018). More people on welfare than have jobs in SA. *Moneyweb*. https://www.moneyweb.co.za/news/south-africa/more-people-on-welfare-than-have-jobs-in-sa/

Samson, M., Heinrich, C. J., Hoddinott, J., Laryea-Adjei, G., Buthelezi, T., Cluver, L., Jehoma, S., Mogotsi, M., Stevens, T., van Niekerk, I., & Nyokangi, E (2016) *The impact of a promise realized: South Africa's child Support Grant.* In B. Davis, S. Handa, N. Hypher, N. Winder Rossi, P. Winters, & J. Yablonski, (Eds.), *From evidence to action. The story of cash transfers and impact evaluation in sub-Saharan Africa*. FAO, UNICEF and Oxford University Press.

Schenck, C. J., Nell, C., Grobler, L., & Blaauw, P. F. (2022). Clean cities and towns: Understanding societal behaviour in order to reduce and divert waste going to landfills. *Waste Research Development and Innovation Roadmap Report*. CSIR.

Schenck, C. J., Nell, C., & Chitaka, T. (2023a). Exploring disposable diaper usage and disposal practices in rural areas. *Waste Research Development and Innovation Roadmap Report*. CSIR.

Schenck, C. J., Chitaka, T. Y., Tyrrell, H., & Couvert, A. (2023b). Disposable diaper usage and disposal practices in Samora Machel Township, South Africa. *Sustainability*, *15*, 9478.

Slade, A., Holland, M., Ordway, M., Carlson, E., Jeon, S., Close, N., Mayes, L. C., & Sadler, L. (2020). Minding the Baby®: Enhancing parental reflective functioning and infant attachment in an attachment -based, interdisciplinary home visiting program. *Development and Psychopathology*, *32*, 123–137. https://doi.org/10.1017/S0954579418001463

South African Cloth Nappy Users (SACNU). (n.d.). Environmental impact. *South African Cloth Nappy Users*. https://www.sacnu.com/environmental-impact

South African Social Security Agency (SASSA). (2023). The child support grant. *South African Social Security Agency*. https://www.sassagrants.co.za/types-of-sassa-grants/child-support-grant/

South African Government News Agency. (2024). Department weighs in on consequences of teenage pregnancies. https://www.sanews.gov.za/south-africa/department-weighs-consequences-teenage-pregnancy

Statistics South Africa (StatsSA). (2021). General household survey 2021. *Statistics South Africa*. https://www.statssa.gov.za/publications/P0318/P03182021.pdf

Statistics South Africa (StatsSA). (2022). Census 2022. *Statistics South Africa*. https://www.statssa.gov.za/?p=15473

United Nations Children's Fund (UNICEF). (2017). The First 1000 days: The critical window to ensure that children survive and thrive. *UNICEF*. https://www.unicef.org/southafrica/media/551/file/ZAF-First-1000-days-brief-2017.pdf

United Nations Children's Fund [UNICEF]. (2023). A decent living standard in South Africa: Findings on possession of the Social Perceived Necessities in 2022. *UNICEF*. https://www.unicef.org/southafrica/media/8181/file/ZAF-Decent-standard-of-living-South-Africa-2023.pdf

Van Stuijvenberg, M., Nel, J., Schoeman, S. E., Lombard, C. J., Du Plessis, L. M., & Dhansay, M. A. (2015). Low intake of calcium and vitamin D, but not zinc, iron or vitamin A, is associated with stunting in 2- to 5-year-old children. *Nutrition*, *31*(6), 841–884. https://doi.org/10.1016/j.nut.2014.12.011

Van Zyl, C., & Van Wyk, C. (2021). Exploring factors that could potentially have affected the first 1000 days of absent learners in South Africa: A qualitative study. *International Journal of Environmental Research and Public Health*, *18*, 2768. https://doi.org/10.3390/ijerph18052768

Viljoen, K., Schenck, R., Volschenk, L., Blaauw, D., & Grobler, L. (2021). Household waste management practices and challenges in a rural remote town in the Hantam Municipality in the Northern Cape, South Africa. *Sustainability*, *13*(11), 5903. https://doi.org/10.3390/su13115903

Vitalis, D., Vilar-Compte, M., Nyhan, K., & Pérez-Escamilla, R. (2021). Breastfeeding inequities in South Africa: Can enforcement of the WHO Code help address them? – A

systematic scoping review. *International Journal for Equity in Health*, *20*, 114. https://doi.org/10.1186/s12939-021-01441-2

Volmink, M. F. (2020). *The effectiveness of the child support grant in South Africa: A case study of Caledon district, Western Cape.* (Master's dissertation). University of the Western Cape, South Africa.

Wright, G., Neves, D., Ntshongwana, P., & Noble, M. (2015). Social assistance and dignity: South African women's experiences of the child support grant. *Development Southern Africa*, *32*(4), 443–457. https://doi-org.ezproxy.uwc.ac.za/10.1080/0376835X.2015.1039711

Yin, R. K. (2014). Case study research: Design and methods (3rd ed). Sage

Zembe-Mkabile, W., Surrender, R., Sanders, D., Jackson, D., & Doherty, T. (2015). The experience of cash transfers in alleviating childhood poverty in South Africa: Mothers' experiences of the Child Support Grant. *Global Public Health*, *10*, 834–851.