University of the Witwatersrand

Economic studies of motherhood and childcare in South Africa

by
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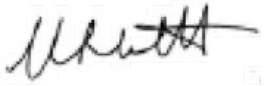
I declare that the research contained in this thesis is my own work.



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Abstract

In this thesis, I examine the relationships between motherhood and childcare, and women's wellbeing and economic status. South Africa is a particularly interesting country in which to explore these relationships given diverse family forms, a long history of labour migration and very low marriage rates particularly among African women. In the first empirical study (Chapter Two), I analyse the gender division of labour in physical and financial (paying for educational expenses) childcare. I show that women are more likely to be physical caregivers than men are financial caregivers. In South Africa, mothers are not always caregivers for their children and in African households, where mothers are more likely to be absent from the household, other women provide both physical and financial care to children. In the second study (Chapter Three), I explore the relationship among women, between their subjective wellbeing (SWB) and living with children. I examine if the nature of women's caregiver status moderates this relationship, and whether caregiving itself is significantly associated with SWB. The results suggest that, in contrast to African women, motherhood and childcare is a less positive experience for non-African women. For African women, on average there is a positive association between physically caring for children (provided they receive help), and paying for the schooling of children. The positive relationship between physical care and SWB is stronger when women are looking after their own children. For non-African women, however, physical and financial care are negatively related to SWB with little difference between own and other children (which is not surprising given that relatively few non-African women are primary caregivers of other people's children). In the final study (Chapter Four), I compare the economic status of mothers by their marital status and investigate the relationship between physical childcare and employment. I show that single mothers, on average, are economically disadvantaged compared to mothers who are married or cohabiting. Furthermore, there is a stronger negative association between providing primary physical care to children and being employed among single mothers. This is partly explained by single mothers who live away from their children being significantly less likely to be caregivers and more likely to be employed. Unlike married or cohabiting mothers, single mothers also do not receive more assistance with childcare when they transition into employment.

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Acronyms

CSG	Child Support Grant
CWP	Community Work Programme
ECD	Early Childhood Development
FE	Fixed Effects
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
NIDS	National Income Dynamics Study
OLS	Ordinary Least Squares
PID	Person Identifier
PSLSD	Project for Statistics on Living Standards and Development
SWB	Subjective Well-being
TUS	Time Use Survey
US	United States

Chapter One

Introduction

This thesis examines childcare and motherhood in South Africa, a country where there is considerable heterogeneity in family forms. Rather than the nuclear family being the modal family type, the majority of children, especially African[1] children, do not live with one or both of their parents (Hall & Posel 2012). This makes South Africa a particularly interesting context in which to study the nature and implications of the provision of care to children.

During the apartheid[2] period, a range of measures prevented the permanent urbanisation of Africans who were forced to live in rural areas that were underdeveloped and lacked job opportunities (Martiny & Sharp 1984; Turshen 1986). Many men temporarily migrated to urban (mainly white) centres in search of work, leaving their families (who were not permitted to accompany them) behind. Although apartheid ended over two decades ago, temporary labour migration has continued (Posel & Casale 2003; Collinson et al. 2007; Posel 2010). The post-apartheid period has also witnessed a continuing decline in marriage, with far lower rates among Africans than other groups in South Africa, while non-marital childbirth rates are high (Posel & Rudwick 2013). In recent years, an increase in female labour migration has also meant that more mothers are likely to be living away from their children (Posel 2010). Together with high mortality rates (Ardington & Leibbrandt 2010), these trends help to account for why many African children do not live with their father and why they are also more likely than other children to live without their mother.

In this thesis, I investigate the provision of childcare in South Africa using data collected in the National Income Dynamics Study (NIDS). NIDS is distinctive in that it is the first national panel study of individuals in South Africa. In comparison to other household surveys for the country, it offers many advantages for empirical research on childcare. First, in addition to a household questionnaire and an adult questionnaire (which covers individuals aged 15 and older), the survey includes a dedicated child module (for children aged 0 to 14).

[1] In South Africa, four racial categories are widely used in data collection and statistical analysis: (black) African, coloured, Indian and white.

[2] The election to power of the pro-Afrikaner National Party (NP) in South Africa in 1948 is formally associated with the rise of apartheid. Apartheid legislation was in place for several decades before it started to be dismantled during the 1980's. South Africa held its first democratic election in April 1994 (South African Government 2018a).

It is also the first nationally representative survey that asks respondents to identify the physical (primary and assistant[3]) caregivers of each child (aged 0 to 14), plus the person(s) paying for the child's educational expenses. The child module also collects information on financial contributions towards childcare received from parents who are not living with their children. Second, the survey includes a birth module in the adult dataset that identifies the number of children a woman has given birth to, which makes it possible to determine which women are biological mothers.

A further advantageous and distinguishing feature of NIDS is that it uses a broad definition of the household to identify household membership; people do not need to be living in the household for much of the year to be considered members. A person is defined as a *resident* household member if s/he spends at least four nights a week in the household. A *non-resident* household member is someone who has spent at least 15 days in the household over the past 12 months and has shared food and resources whilst staying there (for example, a temporary labour migrant). A person is considered *absent* if s/he is not considered to be a household member and has not spent any time living in the household (for example, a father who is no longer romantically involved with a child's mother).

A broad definition of household membership is very important for a study of childcare in South Africa as it makes it possible to distinguish *among* parents who are not co-resident with their children (whether they are non-resident members of the child's household or absent from the household altogether). Given the nature of household formation in South Africa, this distinction permits a more nuanced analysis of the provision of childcare. As household formation differs significantly along racial dimensions, I distinguish Africans from non-Africans throughout the thesis. (Unfortunately, small sample sizes prevent further disaggregation of non-Africans into coloured, Indian and white.)

In the first empirical study (Chapter Two), I explore the gender division of labour in childcare in South Africa. I analyse data from the 2008 (baseline) wave of NIDS, with the analysis providing a benchmark against which future quantitative studies of childcare patterns in South Africa can be compared. Many international studies have shown that women are far

[3] Question E1 in the child questionnaire of NIDS identifies the primary physical caregiver of a child. Assistant caregiver(s) are identified via Question E3 which asks, "Who else helps to care for the child?"

more likely to perform childrearing tasks (particularly those associated with physical care) than men (cf. Monna & Gauthier 2008; Craig & Mullan 2011; Miranda 2011; Luke et al. 2014). Previous quantitative research on childcare in South Africa used the South African Time Use Survey (TUS) data from 2000 and 2010 to show that women spend more time than men on physical childcare (Budlender et al. 2001; Charmes 2006; Guryan et al. 2008; Wittenberg 2009). However, these studies were not able to identify if a woman is considered the child's *primary* physical caregiver, whether she is the sole caregiver or receives assistance with care, and the relationship of the caregiver(s) to the child. The TUS data are further limited because they do not include information on the provision of financial care to children.

My first objective in Chapter Two is to describe the gendered nature of the primary physical care provided to children. I identify the relationship between a child and their primary physical caregiver, and determine whether a child has more than one caregiver. In light of the diversity in household formation in South Africa, I also analyse the provision of physical childcare by household structure.

A related objective of this chapter is to quantitatively explore the provision of financial care to children, and specifically, whether women's greater responsibility for physical childcare is 'balanced' by men assuming relatively more responsibility for the financial care of children (in the form of paying for their schooling expenses). I also investigate the relationship between children and those who assume financial responsibility for children's schooling, and examine whether 'payers' include parents or other adults who are not co-resident with the child.

Given the fungibility of income, absent and non-resident parents may be financially contributing towards their children although this may not be reflected as payment for school expenses. Thus, a third objective of the chapter is to further explore the contributions of parents who do not live with their children, using the unique information collected in NIDS. In particular, I compare the receipt of regular financial contributions towards children from parents who are non-resident household members and parents who are not part of the child's household, and investigate whether there are differences in the contributions from non-co-resident mothers and fathers. This descriptive analysis helps shed light on the extent to which non-payment of child maintenance by absent parents remains a problem in South Africa (as

in other countries) (Laird 2011; Patel & Hochfield 2011; Patel 2012; Cuesta & Meyer 2012; Skinner 2013).

In the second empirical study (Chapter Three), I examine the relationship between children, the provision of care, and a woman's subjective well-being (SWB) or life satisfaction. International studies have produced surprising findings on the relationship between parenthood and SWB, viz. that children tend to reduce a parent's well-being or have no significant effect (cf. McLanahan & Adams 1987; Ross et al. 1990; Evenson & Simon 2005; Clark et al. 2008; Powdthavee 2009). Having dependent children at home raises the need for parental care and increases the chores associated with childcare, which can increase distress, particularly among mothers (Crnic & Greenberg 1990; Umberson & Gove 1989). However, there is some evidence that actual or perceived help with childcare can result in a more positive association between looking after children and a person's level of well-being (Mulsow et al. 2002; Manuel et al. 2012).

Many studies focus on being a *(biological) parent* and SWB, but research has also examined looking after other people's children. For example, some researchers have explored how caring for grandchildren is related to a woman's well-being, with evidence suggesting that this can be a stressful experience (Jendrek 1993; Strawbridge et al. 1997; Hayslip et al. 1998; Hughes et al. 2007). Other studies have focused on step-, adoptive and foster mothers, and women caring for kin, with results tending to vary according to the sample of women analysed as well as their cultural contexts (Umberson et al. 2010; Nelson et al. 2014). However, there is little, if any, local and international research that includes all women in one study and compares the SWB of biological mothers to all other women looking after other people's children.

A few South African studies have explored the SWB of women, and have included the presence of children in the household as a covariate in the analysis. However, these studies either did not consider how children are related to women, or the research focused on a more restricted sample of women (for example, only those in a marital or cohabiting relationship) (Botha & Booysen 2013a; Ebrahim et al. 2013; Posel & Casale 2015). They have also not unpacked what aspect of 'child presence' is related to life satisfaction, and in particular, whether a relationship derives from responsibility for the primary physical or financial care of a child.

My objective in Chapter Three is to explore the relationship between living with children and SWB among women in South Africa, and to probe how being responsible for the physical (sole and assisted) and financial care of children moderates this relationship. Some international studies have shown that physical childcare is directly related to parental anger (Ross & van Willigen 1996) and that once responsibility for childcare is controlled for, the relationship between the number of co-resident children and distress becomes negative from initially being positive (Bird 1997). Other studies have highlighted that children create an additional financial burden, and that economic hardship is associated with depression and anger (Ross et al. 1990; Ross & Van Willigen, 1996; Jackson et al. 2000).

In this study, I analyse the first three waves of NIDS from 2008, 2010/11 and 2012 and compare the SWB of biological mothers with that of other women who are living with and looking after children who are not their own[4]. This is an important distinction to make in South Africa, for as I show in Chapter Two, many children live with, and are cared for, by women other than their mother. I investigate the correlates of women's SWB both at the cross-section, using ordinary least squares (OLS) regression analysis, and over the panel, using fixed effects (FE) regression analysis. The use of FE analysis offers some control for time-invariant, unobservable characteristics, including personality traits like ambition, which may affect both the individual's level of SWB and the likelihood of being a caregiver. As I am interested in whether the particular patterns of household formation influence the relationship between caregiving and women's SWB, I estimate these regressions separately for Africans and non-Africans.

In the third empirical study (Chapter Four), I investigate the economic implications of caregiving for women who are mothers. I use the first three waves of NIDS to explore the relationship between a mother's responsibility for physical childcare and the likelihood of her employment, and investigate differences in the economic status of single and married mothers. I focus on biological mothers because the South African government places a legal obligation on a child's parents to financially support their child[5]. As women in South Africa

[4] In this thesis, grandmothers caring for their grandchildren fall into the category of women caring for other people's children.

[5] Maintenance is payable by any person who is responsible to raise the child i.e. biological parents, adoptive parents, legal guardians and grandparents (when parents cannot pay). While the birth module in NIDS makes it possible to identify biological mothers, data constraints preclude identifying all women who fall into the other

spend more time on physical childcare than men, it is important to understand if there is a negative association between being a primary physical caregiver and having a job. Several international studies have described the challenges many mothers face in trying to remain in employment while at the same time being the caregiver of their children (Presser & Baldwin 1980; McRae 2003; Viitanen 2005; Lee 2007). Responsibility for childcare can therefore compromise a woman's ability to support her child.

Single mothers are likely to face even greater challenges than married (or cohabiting) mothers in remaining in employment given that they do not have a partner to assist with the provision of physical childcare. As discussed in international studies, many face the dual burden of being both the primary caregiver and primary breadwinner for their children (Mason 2003; Son & Bauer 2010; Dodson 2013). To probe the tension between being a caregiver and a breadwinner in South Africa, I compare the relationship between childcare and employment among single and married (or cohabiting) mothers. In comparison to married mothers, single mothers would be expected to have more need to enter the labour market to support themselves and their children; but in the absence of a spouse to assist with childcare responsibilities, they may also face more constraints in doing so.

International research has shown that single mothers, on average, are relatively worse off than those who are married or cohabiting with a partner (Lopez & Velasco 2011; Chzen & Bradshaw 2012; Schaefer & Edin 2013; Shirahase & Raymo 2014). This is typically because men, on average, earn significantly more than women (Seccombe 2000; Oostendorp 2009) and single mothers do not have direct access to a man's income (Sørenson & McLanahan 1987; Sørenson 1994). In their study on 'lone mothers' in South Africa, Wright et al. (2014) document how poverty erodes their feelings of dignity and how they cite their roles as caregivers of children as the main reason to preserve their dignity (Wright et al. 2014: 227). The economic status of a single mother affects not only her own well-being but that of the children she looks after. Thus, another objective of this chapter is to assess the extent to which the economic status of single mothers differs from that of married mothers.

I define single mothers as those who have never married, or who are divorced or widowed. Married mothers are those who are either married or cohabiting with a partner. Previous

categories. I therefore restrict the analysis to biological mothers (Department of Justice and Constitutional Development 2012).

studies on ‘lone’ mothers in South Africa defined a ‘lone’ mother as a woman who co-resides with her own or someone else’s child but does not live with a spouse or partner (Wright et al. 2014; Ntshongwana et al. 2015). According to this definition, ‘lone’ mothers could be married, for example, to a husband who is a temporary labour migrant. However, including married women in the analysis can be problematic as they may be more likely than unmarried women to receive financial support from a man. In turn, this would create upward bias in measures of the economic status of single mothers.

I use regression analysis to estimate the likelihood of employment among the two samples of mothers and also examine whether receiving assistance with childcare is positively associated with working. I use descriptive techniques to compare the economic status of married and single mothers in South Africa, including their dependence on grant income, employment rates, and the average level of individual and household income. In the regression analysis, I use a FE logit model to control for one source of endogeneity in the relationship between childcare and employment, which derives from selection on unobservable characteristics. For example, a more ambitious and talented mother may be more likely to be working and less likely to be caring for her children. The FE logit model offers the further advantage of estimating how employment status changes as a mother switches to becoming a primary physical caregiver. However, the model does not overcome the problem of reverse causality in the relationship between caregiving responsibilities and employment, viz. the possibility that because mothers cannot find employment, they provide primary physical care. This concern is particularly relevant in the South African context of very high unemployment rates. However, in the absence of a suitable instrument, I am not able to control for this source of endogeneity and the study’s findings are therefore qualified in light of this limitation.

In summary, in the quantitative studies in this thesis I attempt to answer the following main questions. First, is there a gender division of labour in the provision of childcare, where women are responsible for primary physical care and men are responsible for the financial care of children (Chapter Two)? Second, is the responsibility for childcare positively or negatively associated with the SWB of the carer, and does this change when the caregiver receives assistance with childcare (Chapter Three)? Third, is there a negative relationship between being a primary physical caregiver and access to employment (Chapter Four)?

Chapter Two extends the findings in previous research regarding gender imbalances and inequities in childcare in South Africa. The chapter provides the first nationally representative quantitative analysis of childcare that considers the relationship between caregivers and children. In contrast to earlier studies, the analysis also identifies not only the primary caregivers of children but also the assistant carers, as well as the financial carers (who cover the direct costs of children). The study in Chapter Three contributes to the international debate on the relationship between childcare and women's subjective wellbeing, and it extends South African research by recognising different care relationships between women and children. Chapter Four also goes beyond existing research on South African mothers by refining the definition of single mothers to exclude women who are married (even if not co-resident with a spouse). As discussed throughout the thesis, this research has important policy implications for it considers the (direct and indirect) costs and benefits of childcare, thereby highlighting ways in which the well-being of caregivers of children could be improved.

The structure of the thesis is as follows. In Chapter Two, I conduct a quantitative study of the physical and financial care of children aged 0 to 14 in South Africa. In Chapter Three, I investigate the relationship between motherhood and childcare, and subjective well-being in South Africa. In the penultimate chapter, Chapter Four, I provide an analysis of motherhood, marital status and employment in South Africa and in the final chapter, Chapter Five I conclude the thesis with a summary and brief discussion of the findings from the three studies.

Chapter Two

A quantitative study of physical and financial childcare in South Africa

2.1 Introduction

In many households, the traditional division of labour in childcare has been for women to take responsibility for the physical care of children with men taking responsibility for financial care. Over time, there has been more sharing of these roles, particularly as female labour force participation has increased and societal norms regarding fatherhood have changed. However, in many families the more routine tasks, for example, bathing and feeding children, taking them to school and putting them to sleep continue to be performed by women (cf. Monna & Gauthier 2008; Craig & Mullan 2011; Miranda 2011; Luke et al. 2014).

In South Africa, many children, especially African children live with their mother and not their father (Hall & Posel 2012). In some cases, fathers have died (particularly in the context of HIV/AIDS); however, many fathers are still alive but absent from the child's household. The reasons for paternal absence include high levels of labour migration where fathers work in areas far from the household (Collinson et al. 2007; Posel & Devey 2006; Posel 2010), low rates of marriage and high rates of non-marital childbirth (Posel & Rudwick 2013).

In recent years, an increase in female labour migration, particularly from rural areas (Posel 2010, Camlin et al. 2014) and high rates of maternal death (Mayosi et al. 2012), have resulted in many African children also living without their mother. Many of these children receive primary care from their grandmothers or other relatives. However, little research has been conducted on the role played by absent mothers (who are not deceased) in their children's lives. In contrast, several studies document the involvement of absent fathers (cf. Madhavan et al. 2008; Clarke et al. 2015).

In this chapter, I investigate the gender division of labour in childcare in South African households. South Africa is a particularly interesting country to explore childcare given that many children do not live with their father and a large percentage live with neither parent. I use the 2008 wave of NIDS, which is the first nationally representative dataset that asks respondents to identify the primary physical caregiver of each child, as well as the person(s)

paying for their educational expenses. NIDS also includes information on whether or not parents are co-resident, and for those who do not live in the household, whether they still see and financially provide for their children. Although subsequent waves of NIDS have been conducted, I focus this analysis on the first wave, where the nationally representative sample provides a benchmark against which analysis of the subsequent waves can be compared.

The South African TUSs quantitatively document that women assume greater responsibility than men for physical childcare and household work (Budlender et al. 2001; Charmes 2006; Guryan et al. 2008; Wittenberg 2009). However, these surveys do not collect information on the financial care of children. A further limitation is that it is not possible to identify which adult is caring for which child. Consequently, the relationship between a child and their caregiver cannot be determined. In this chapter, I contribute to quantitative research on childcare in South Africa in three ways. First, I examine *both* the physical and financial care of children. I identify the relationship between children and their physical and financial caregiver(s), and for both types of care, I investigate whether a child has more than one caregiver. Second, I highlight the unique patterns of childcare among African children and explore the relationship between childcare and household structure. I also examine the relationship between patterns of childcare and the status of a child's parents (whether they are alive and co-resident with their child). Third, I analyse whether men take greater responsibility for financial care, given that women take greater responsibility for physical care. I also probe the contributions made by mothers and fathers who are not co-resident with their children, analysing whether they maintain contact, and contribute financially towards childrearing.

2.2 Literature Review

Women's responsibility for the physical care of children is very well documented across a wide range of countries. Many of these studies investigate childcare by analysing time use data (see for example Kalenkoski et al. 2005; Craig & Mullan 2011; Neilson & Stanfors 2014). The South African TUSs of 2000 and 2010 both record that women spend much more time physically caring for children than men. Using the 2000 TUS, Charmes (2006) estimates that women spend an average of 26 minutes per day on 'caring for children' and 'teaching of household children' whilst men spend an average of only two minutes. Guryan et al. (2008)

also examine the 2000 TUS but focus on a sample of individuals aged 21 to 55, who live in households with at least one child under the age of 18. They find that women in these households spend an average of 5.9 hours per week on childcare compared to 0.6 hours by men (see also Budlender et al. 2001; Wittenberg 2009). The more recent 2010 TUS records similar gender differences, with the amount of time that women spend on childcare overall being more than eight times more than that spent by men (Statistics South Africa 2013: 36).

Many children, particularly African children, live in complex household types in which multi- and skip-generational living is common. Thus, for many children, their primary caregiver is a woman but it may not be their biological mother (Moore 2013). Several qualitative studies document the important role that grandmothers in particular play in the provision of childcare (cf. Schatz 2007; Schatz & Ogunmefun 2007; Bohman et al. 2009).

One of the reasons for lower levels of paternal care is high levels of paternal absence from the household. In some cases, fathers are deceased (Ardington & Leibbrandt 2010) but most fathers who are not co-resident with their children are alive and living elsewhere (Posel & Devey 2006; Posel & Rudwick 2013). This is largely a result of the nature of labour migration during the apartheid period. Racial groups were forced to live separately with Africans made to live in 'homelands' which were generally far from urban areas, and had few employment opportunities and high poverty levels (Martiny & Sharp 1984; Turshen 1986). African men, in particular would move away from their household of origin to urban (white) areas in search of work. However, racial segregation laws prevented their families from accompanying them. These laws, alongside the contractual nature of work meant that they would return periodically to their household only to move away again for the next work contract. The repeal of discriminatory apartheid legislation commenced in the 1980s but temporary labour migration continues to be an important part of labour supply in South Africa. In 2008, almost 22 per cent of African households in rural areas reported a labour migrant as a non-resident household member (Posel 2010).

Another reason for paternal absence is declining marriage rates and high rates of non-marital pregnancy, which largely results in children living with their mothers, and not their fathers (cf. Hosegood et al. 2009; Posel et al. 2011). In recent years, female labour migration from rural areas has increased, which, along with high maternal mortality rates, has resulted in a number of children not living with their mother (Hall & Meintjes 2016).

The South African Children's Act 38 of 2005 requires that parents care for and maintain contact with their child, as well contribute towards the maintenance of the child even when they are not living with the child (Department of Justice and Constitutional Development 2005). Furthermore, the South African Maintenance Act 99 of 1998 requires all parents to support their children financially irrespective of their relationship with the other parent and regardless of their residency status in the child's household (Department of Justice and Constitutional Development 2010).

The nature of household formation in South Africa means that mainly mothers seek financial support for their children from absent fathers. An obstacle confronting many is that the fathers of their children (particularly young fathers) do not acknowledge paternity (Varga 2003; Hunter 2006). A further problem is that the Maintenance Act is poorly enforced; even where fathers are ordered to pay, they manage to avoid doing so (Bonthuys 2008a; Budlender & Lund 2011; Carnelley 2012; De Jong & Sephai 2014). In some cases, fathers may want to contribute but are unable to do so due to unemployment (Makusha et al. 2012).

Several recent studies have highlighted the support that absent fathers provide to their children and thus challenge the notion that fathers are "disengaged and shirking their responsibilities" (Clarke et al. 2015: 576). This research notes that fathers provide financial support where they are able to, and perform other duties like assisting with homework, playing with children, talking to them and providing moral guidance. Much of this research uses region-specific quantitative data or they are qualitative studies and therefore do not represent South African fathers in general (cf. Madhavan et al. 2008; Swartz & Bhana 2009; Makusha et al. 2012; Madhavan et al. 2014; Clark et al. 2015).

In this chapter, I use nationally representative micro-data to analyse the provision of physical and financial childcare in South Africa. I am able to identify the person(s) providing physical and financial care for a child, as well as the relationship between a child and their caregiver(s). A primary objective is to identify patterns of childcare in the context of complex household formation in South Africa. Specifically, I focus on the extent to which parents are providing care, whether there is a gender division in the provision of physical and financial care, and whether absent mothers and fathers maintain contact with and financially support their children.

2.3 Data and Methods

The data used in this chapter are from the 2008 (baseline) wave of NIDS which sampled approximately 28 000 individuals and 7 300 households. NIDS is distinctive among most other nationally representative surveys in South Africa due to its broad definition of household membership. A resident member of a household is someone who spends at least four nights per week in the household. A person is a *non-resident* member if they spent more than 15 days in the last 12 months in the household and shared food and resources while staying there. Someone who is *absent* does not spend any time living in the household.

A further advantage of NIDS is that in addition to the adult questionnaire for persons aged 15 and older, and the household questionnaire, it has a separate questionnaire for children aged 14 and younger. In this study, I use descriptive methods to analyse responses to three sets of questions included in the child questionnaire. The first relates to the physical care of children. Question E1 asks "who is the main person responsible for making sure that this child is fed, bathed, goes to school if of school-going age, helped with homework, taken care of when the child is ill, etc.?", and question E2 asks how this person is related to the child. A third question (E3) probes "who else helps care for the child?" Multiple answers are permitted with the largest number of helpers for any one child being nine.

The second set of questions relates to the financial care of children. Respondents are asked who paid for the educational expenses of a child and the nature of the person's relationship to the child (Question C14). Up to three 'payers' can be identified for any one child.

The final group of questions relates to the residency status of a child's biological mother and father. Respondents are asked whether a non-resident or absent parent maintains contact with, and financially contributes towards their child (Questions E9 to E12). I use this information to gain insight into how involved non-co-resident mothers and fathers are in their children's lives.

By matching the person identifier (PID) of a child's physical and financial caregiver to the PID contained in the main household roster, I am also able to identify if a caregiver is a resident or non-resident (for example a temporary labour migrant) household member. I am able to determine whether a caregiver is absent (for example, if the parents are divorced) via

information included in the child questionnaire. If caregivers are household members, it is possible to identify further information such as their age and gender and their relationship to the child (for example, biological mother or father, or grandmother or grandfather). However, there is no further information on absent caregivers as they do not appear on the household roster.

The child questionnaire is administered to the "mother/caregiver of the child or another household member who is knowledgeable about the child". It is possible that this person underreports the role of other individuals in the care of a child. Previous studies have highlighted that mothers can underplay the amount of childcare provided by the child's father, particularly when parents no longer live together (cf. Coley & Morris 2002; Mikelson 2008). However, the fact that respondents are able to list multiple individuals who assist both with the physical care of children and with the payment of school expenses, may help to mitigate this problem. The unweighted sample of children consists of 7939 African and 1666 non-African children, with the weighted sample being 12,900,000 African and 2,507,626 non-African children.

In this study I distinguish between African and non-African children, with the latter group including coloured, Indian and white children. The small size of the NIDS dataset prevents further disaggregation into the four population groups. Only about 16 per cent of all the children in the sample are non-African. I separate the sample into the two groups because of higher rates of HIV/AIDS mortality, labour migration and non-marital childbirth among Africans, which I expect to result in different patterns of household formation and childcare. Differences between the two groups serve to highlight the links between the distinctive living arrangements of Africans and the particular patterns of childcare.

2.4 Results

2.4.1 The physical care of children

Table 2.1 shows that a woman is the primary physical caregiver[6] of the overwhelming majority of children in South Africa. There are also differences by the age and race of the child. Younger children are more likely to have a female primary caregiver. In 2008, approximately 97 and 92 per cent of very young African and non-African children, respectively had a female primary caregiver. In comparison, 92 and 88 per cent of African and non-African children aged seven to 14, respectively received primary care from a woman. Women's responsibility for physical childcare appears to be stronger among Africans compared to non-Africans. Across all age categories, less than eight per cent of African children have a man as a primary caregiver with the figure for non-African children standing at between eight and 14 per cent.

Table 2.1 Gender of the primary physical caregiver of children by children's age, 2008

Proportion of children where caregiver is:	**Ages 0 – 3**	**Ages 4 – 6**	**Ages 7 - 14**
		All	
Female	0.959 (0.007)	0.936 (0.009)	0.916 (0.007)
Male	0.041 (0.007)	0.064 (0.009)	0.084 (0.007)
		African	
Female	0.966 (0.007)	0.950 (0.008)	0.922 (0.006)
Male	0.034 (0.007)	0.050 (0.008)	0.078 (0.006)
		Non-African	
Female	0.918 (0.028)	0.864 (0.040)	0.883 (0.025)
Male	0.082 (0.028)	0.136 (0.040)	0.117 (0.025)

Source: NIDS 2008

Note: The data are weighted. Standard errors are in parentheses. The primary physical caregiver is the main person responsible for ensuring that the child is fed, bathed, goes to school if eligible, is helped with homework and taken care of when sick. Proportions are calculated for the sample of children aged 0 to 14 for whom information on the gender and age of their primary physical caregiver is not missing.

[6] Among all African children, 99.9 per cent of primary physical caregivers are adults (15 years and older), while all primary physical caregivers of non-African children are adults. Three observations for African children identify caregivers who are themselves younger than 10, and I drop these observations from the sample.

Table 2.2 shows that more than 75 per cent of children in South Africa have a primary physical caregiver plus at least one other person helping to care for them. Caregivers of non-African children are significantly more likely to have help. For example, in 2008, approximately 80 per cent of African children aged 0 to three had a primary caregiver who received assistance from at least one other person. For non-African children, almost 91 per cent had primary caregivers who had some help. As children grow older, they are less likely to have more than one caregiver. This is unsurprising given that childrearing demands decrease for older children.

Table 2.2 Assistance in the provision of physical care to children, 2008

Percentage of children:	**One caregiver**	**More than one caregiver**
All children	0.225 (0.006)	0.775 (0.006)
	African	
Children (0-3 years)	0.204 (0.012)*	0.796 (0.012)*
Children (4-6 years)	0.231 (0.015)*	0.769 (0.015)*
Children (7-14 years)	0.276 (0.009)*	0.730 (0.009)*
	Non-African	
Children (0-3 years)	0.941 (0.026)	0.906 (0.026)
Children (4-6 years)	0.101 (0.032)	0.899 (0.032)
Children (7-14 years)	0.139 (0.020)	0.861 (0.020)

Source: NIDS 2008
Note: The data are weighted. Standard errors are in parentheses. The percentages relate to children for whom the question on more than one caregiver is answered (with either an individual or 'no one' identified).
*Percentages of African and non-African children are significantly different at the five per cent level.

The relationship of primary physical caregivers to the children they care for is described in Table 2.3. I also identify whether or not caregivers receive assistance. For most children, their biological[7] mother is their primary caregiver; however, African children are less likely than other children to receive primary care from their mother. For example, 66 compared to 79 per cent of African and non-African children (aged four to six) respectively, reported their mother as their primary physical caregiver. However, where the mother is the primary care provider, mothers of African children are more likely than mothers of other children to be the sole providers of care.

[7] 'Other female' includes foster, adoptive and stepmothers. Similarly, 'other male' includes foster, adoptive and stepfathers.

As children grow older, they are less likely to have their mother as their primary caregiver. For example, 75 per cent of young African children (aged three or younger) received care from their mother compared with 62 per cent of older children (aged seven to 14). Among non-African children, the respective shares are 85 and 78 per cent.

Consistent with the findings of other studies, Table 2.3 highlights the importance of grandmothers in providing care. This is particularly relevant among African children with between 16 and 20 per cent receiving primary care from their grandmother in 2008. Furthermore, grandmothers of African children are the most likely among all primary caregivers to be the sole providers of care. In contrast, among non-African children, grandmothers were the primary care providers for between four and six per cent.

Fathers are primary physical caregivers for less than six per cent of African and less than 11 per cent of non-African children. Among African children, if a mother is not the primary caregiver of her child, the child is far more likely to receive care from another woman or grandmother. In contrast, among non-Africans, fathers are more likely to be primary physical caregivers than other women are.

Employing a domestic worker to assist with household chores and childcare has been a common practice in South Africa. According to the 2008 NIDS data, approximately 17 and 37 per cent of African and non-African households, respectively indicated that they had paid for domestic labour and/or childcare in the past 30 days. Yet, less than one per cent of all children reported receiving primary care from someone who was unrelated to them and was paid for their care work (a category that would include domestic workers). This may seem surprising; however, the question on primary care asks for the main person who is responsible not only for the day-to-day care of the child but also for helping the child with homework and taking care of their health, roles which domestic workers are less likely to perform.[8] Domestic workers are considerably more likely to be 'assistant' caregivers, particularly in the case of non-African children.[9]

[8] The nature of the question would also explain why very few children (approximately one and zero per cent of African and non-African children, respectively) are identified as having primary caregivers who are not co-resident with the child.

[9] For example, for approximately 25 per cent of non-African children, the third person identified as providing assistance with childcare was someone who was "unrelated and for pay".

In sum, childcare patterns in South Africa clearly differ according to the race and age of a child. African children are less likely to have their mother or father as their primary caregiver, and more likely to receive primary care from another woman, particularly their grandmother. Primary care provided by a mother decreases as children grow older, with this difference being significant among African children. I now examine household type as well as the status of a child's parent in more detail, and explore how these are associated with caregiver profiles in South Africa.

Table 2.3 Relationship of primary physical caregivers to children by children's age, 2008

Proportion of children where caregiver is:	**Ages 0 – 3**	**Ages 4 – 6**	**Ages 7 – 14**
		African	
Mother	0.745 (0.013)*	0.663 (0.017)*	0.617 (0.010)*
Only one caregiver	*0.196 (0.014)**	*0.230 (0.020)**	*0.269 (0.013)**
Father	0.029 (0.007)	0.033 (0.007)	0.054 (0.005)
Only one caregiver	*0.047 (0.032)*	*0.100 (0.063)*	*0.176 (0.038)*
Grandmother	0.159 (0.010)*	0.204 (0.013)*	0.183 (0.008)*
Only one caregiver	*0.260 (0.029)**	*0.272 (0.033*)*	*0.288 (0.019)**
Other female	0.061 (0.007)	0.085 (0.010)*	0.126 (0.007)*
Only one caregiver	*0.258 (0.051)**	*0.234 (0.045)*	*0.286 (0.026)*
Other male	0.005 (0.002)	0.015 (0.004)	0.020 (0.003)
Only one caregiver	*0.041 (0.045)*	*0.200 (0.111)*	*0.246 (0.056)*
		Non-African	
Mother	0.846 (0.033)	0.794 (0.045)	0.782 (0.027)
Only one caregiver	*0.100 (0.030)*	*0.104 (0.040)*	*0.147 (0.024)*
Father	0.064 (0.026)	0.105 (0.036)	0.103 (0.024)
Only one caregiver	*0.150 (0.145)*	*0.016 (0.014)*	*0.118 (0.066)*
Grandmother	0.036 (0.011)	0.050 (0.018)	0.057 (0.010)
Only one caregiver	*0.053 (0.050)*	*0.067 (0.047)*	*0.097 (0.039)*
Other female	0.045 (0.018)	0.023 (0.008)	0.044 (0.009)
Only one caregiver	*0.041 (0.032)*	*0.107 (0.076)*	*0.195 (0.081)*
Other male	0.008 (0.007)	0.028 (0.022)	0.014 (0.008)
Only one caregiver	*0*	*0.069 (0.094)*	*0.045 (0.053)*

Source: NIDS 2008

Note: The data are weighted. Standard errors are in parentheses. Proportions relate to children for whom there is non-missing information on the gender and age of their primary caregiver, and on the child's relationship to their caregiver. *Percentages of African and non-African children are significantly different at the five per cent level.

Table 2.4 shows that non-African children are far more likely to live with both of their parents than African children – 63 per cent compared to 27 per cent, respectively. Regardless of race, in all households that include both parents, there is little difference in the gender division of labour in childcare with approximately 10 to 12 per cent of children receiving primary care from their fathers, and 84 to 89 per cent from their mothers.

Children living with one parent are far more likely to reside with their mother. This is more common among Africans with almost 45 per cent living with their mother and not their father. In contrast, approximately 25 per cent of non-African children live with their mother and not their father. In mother-only households (i.e. households that exclude fathers), the mother is the primary caregiver for 90 per cent or more of children, and most children not cared for by their mother receive primary care from their grandmother.

Only about three per cent of children live with their father and not their mother. In most of these households, the majority of children receive primary care from their father. The exception is households in which African children live with their father and other adults. More than 41 per cent of children receive primary care from another female, which suggests lower participation by fathers in physical childrearing. In these types of households, far more African children are cared for by their grandmother with just over 27 per cent receiving primary care from their grandmother compared to just over five per cent of non-African children.

Thus, when children of any race are living in a household with their mother, they are most likely to have their mother as their primary physical caregiver. With most children in South Africa living with either both their parents or only their mother, most are receiving primary care from their mother. A main reason for fewer African children receiving primary care from their mother is that approximately 24 per cent live in households with other adults (and neither parent) compared to seven per cent of non-African children. In these households, their grandmother is most likely to be their primary caregiver, with this being more common for African children. This further highlights the important role played by African grandmothers in the primary care of their grandchildren.

Table 2.4 Parent mortality and primary physical caregivers of children by household type, 2008

	African						
	Nuclear	**Parents & other adults**	**Mother (no other adults)**	**Mother & other adults**	**Father (no other adults)**	**Father & other adults**	**Other adults only**
Proportion of children	0.133 (0.006)	0.140 (0.006)	0.084 (0.005)	0.362 (0.007)	0.004 (0.001)	0.021 (0.002)	0.242 (0.006)
Mother is dead					0.498 (0.124)	0.243 (0.045)	0.258 (0.012)
Father is dead			0.207 (0.025)	0.155 (0.009)			0.263 (0.012)
Mother is caregiver	0.882 (0.019)	0.876 (0.015)	0.988 (0.005)	0.897 (0.008)	0.016 (0.012)#	0.003 (0.003)#	0.012 (0.003)#
Father is caregiver	0.118 (0.019)	0.113 (0.014)	0.012 (0.005)#	0.001 (0.000)#	0.984 (0.012)	0.292 (0.046)	0.002 (0.001)#
Grandmother is caregiver		0.006 (0.003)		0.077 (0.007)		0.273 (0.052)	0.590 (0.014)
Other female is caregiver		0.005 (0.002)		0.019 (0.003)		0.414 (0.056)	0.344 (0.014)
Other male is caregiver				0.006 (0.002)		0.017 (0.013)	0.053 (0.006)
	Non-African						
	Nuclear	**Parents & other adults**	**Mother (no other adults)**	**Mother & other adults**	**Father (no other adults)**	**Father & other adults**	**Other adults only**
Proportion of children	0.407 (0.026)	0.224 (0.019)	0.075 (0.012)	0.174 (0.016)	0.009 (0.005)	0.025 (0.007)	0.073 (0.009)
Mother is dead					0.007 (0.008)	0.389 (0.146)	0.189 (0.045)
Father is dead			0.158 (0.062)	0.114 (0.024)			0.204 (0.048)
Mother is caregiver	0.891 (0.030)	0.841 (0.039)	1	0.916 (0.024)			0.015 (0.009)#
Father is caregiver	0.109 (0.030)	0.103 (0.034)			1	0.743 (0.111)	
Grandmother is caregiver		0.038 (0.016)		0.062 (0.021)		0.054 (0.029)	0.422 (0.065)
Other female is caregiver		0.018 (0.016)		0.010 (0.004)		0.204 (0.102)	0.370 (0.064)
Other male is caregiver				0.012 (0.012)			0.193 (0.076)

Source: NIDS 2008

Notes: The data are weighted. Standard errors are in parentheses. Proportions are calculated for children for whom there is non-missing information on the gender and age of their primary caregiver, and on the child's relationship to their caregiver. #These mothers and fathers are non-resident household members.

Across all household types and population groups, there is little difference in the gender division of labour in childcare. Far more women than men are primary physical caregivers. The status of a child's mother is an important factor associated with whether the mother, or another woman, is a child's primary caregiver. Table 2.5 shows, that where parents are not living with their children, the main reason is that they are 'absent' rather than being non-resident members or deceased.

African children are significantly more likely than other children to have parents who are absent or non-resident. Furthermore, rates of maternal and paternal orphanhood are significantly higher for Africans except for children aged 0 to 3 where there is no significant difference. Table 2.5 therefore confirms that African children are significantly less likely to live with their mother, which explains why they are less likely to receive primary care from their mother. For example, only 68 per cent of African children (aged 7 to 14) co-reside with their mother, in contrast to just over 85 per cent of non-African children in the same age group.

Maternal co-residence declines with children's age, which would explain why older children are less likely to have their mother as their primary caregiver. The main reason for mothers not living with their children as they grow older is a higher rate of maternal 'absence' rather than mothers passing away or being non-resident household members. The increase in the percentage of African children (from ages 0 to 3, to ages 4 to 6) with non-resident mothers may be due to women delaying becoming temporary labour migrants until their children are slightly older.

Children are even less likely to live with their father, with around 70 per cent of African children having a father who is not co-resident. For younger African children the primary reason is paternal absence; however as they grow older, the rate of paternal death increases whilst paternal absence declines. Overall, there is little difference in the rate of paternal co-residence by the child's age. A small percentage of African children (five to seven per cent) have fathers who are non-resident household members.

Table 2.5 Mortality and residency status of children's parents by children's age, 2008

	Ages 0 – 3	Ages 4 – 6	Ages 7 - 14
		All	
Mother is dead	0.019 (0.003)	0.040 (0.006)	0.093 (0.005)
Mother is absent	0.105 (0.008)	0.165 (0.012)	0.167 (0.007)
Mother is non-resident	0.028 (0.004)	0.034 (0.004)	0.035 (0.003)
Mother is resident	0.849 (0.009)	0.760 (0.013)	0.706 (0.009)
Father is dead	0.039 (0.005)	0.099 (0.009)	0.175 (0.007)
Father is absent	0.540 (0.015)	0.488 (0.018)	0.406 (0.010)
Father is non-resident	0.045 (0.005)	0.060 (0.008)	0.057 (0.004)
Father is resident	0.376 (0.015)	0.354 (0.019)	0.361 (0.011)
		African	
Mother is dead	0.021 (0.004)	0.047 (0.007)*	0.105 (0.006)*
Mother is absent	0.115 (0.008)*	0.179 (0.013)*	0.178 (0.008)*
Mother is non-resident	0.032 (0.004)*	0.041 (0.005)	0.041 (0.003)*
Mother is resident	0.832 (0.010)*	0.733 (0.015)*	0.676 (0.009)*
Father is dead	0.043 (0.005)	0.114 (0.011)*	0.195 (0.008)*
Father is absent	0.601 (0.015)*	0.529 (0.018)*	0.430 (0.011)*
Father is non-resident	0.050 (0.006)*	0.069 (0.009)*	0.066 (0.005)*
Father is resident	0.307 (0.015)*	0.287 (0.017)*	0.309 (0.011)*
		Non-African	
Mother is dead	0.010 (0.007)	0.004 (0.002)	0.036 (0.010)
Mother is absent	0.053 (0.015)	0.093 (0.028)	0.107 (0.016)
Mother is non-resident	0.002 (0.002)	0	0.002 (0.001)
Mother is resident	0.935 (0.016)	0.902 (0.028)	0.854 (0.019)
Father is dead	0.018 (0.008)	0.017 (0.006)	0.071 (0.013)
Father is absent	0.229 (0.034)	0.270 (0.045)	0.284 (0.027)
Father is non-resident	0.019 (0.010)	0.009 (0.005)	0.012 (0.004)
Father is resident	0.734 (0.036)	0.704 (0.046)	0.632 (0.030)

Source: NIDS 2008

Note: The data are weighted. Standard errors are in parentheses. The residency and mortality status of parents is determined by information collected in the household roster. * Proportions of African and non-African children are significantly different at the five per cent level.

Between 27 and 37 per cent of non-African children do not live with their father, which in part explains why non-African children are more likely to receive primary physical care from their father than African children. The primary reason for children not living with their fathers is paternal absence. In contrast to African children, paternal co-residence decreases as non-African children grow older.

The provision of primary physical childcare in South African therefore remains highly gendered. Children are more likely to live with their mother than their father and when co-resident, mothers are most likely to be their child's primary caregiver. Maternal co-residence declines with a child's age, which partly explains why older children are less likely to receive primary care from their mother. African children who do not receive primary care from their mother are more likely to receive care from another woman, particularly their grandmother. Overall, their father is the primary caregiver for less than 6 per cent of African children and less than 11 per cent of non-African children. A primary reason for this is high rates of paternal absence, which are significantly higher among African children. In the next section, I explore whether there is a gender division in the provision of financial care, and investigate the contributions made by parents who are not co-resident with their children.

2.4.2 The financial support of children

I explore the financial care of children by analysing who paid for or contributed towards a child's educational expenses in the year prior to the survey. The payment for education is only one dimension of the direct costs of childcare (for example, housing, food, clothing and health care are other important items in the care of a child). However, aside from medical aid payments (which are made only for a relatively small number of children) no other question in the child questionnaire asks respondents to identify the payer of a particular childcare expense. Nonetheless, education expenses are an important component of the direct costs of children. For example, using data from NIDS 2008, Branson et al. (2013) find that educational expenses comprise a sizeable portion of total household expenditure, particularly in poorer households where they constitute more than 20 per cent of total spending. These expenses (which include fees, uniforms, books and stationery, transport to school and other school-related expenses) are a

large component of the direct costs of a child. In this study, I focus on children of compulsory school-going age (7 to 14) currently enrolled in school as this represents the sample of children who are most likely to incur educational costs. This accounts for approximately 98 per cent of children who are eligible to attend school.

Table 2.6 shows that only one person is paying for most children's educational expenses. Furthermore, the majority of children live with the person(s) paying for their schooling. 'Payers' who are not co-resident are more likely to be absent than non-resident household members. However, this does not signal that absent parents are more likely to pay than non-resident parents are. Rather it highlights that children are more likely to have absent than non-resident parents. For all children with absent parents, 13 per cent received educational support from people who were absent from the household; while for children with non-resident parents, 46 per cent received support from non-resident household members.

There are several differences between African and non-African children attending school. First, there is less cost sharing for the schooling of African children with just over eight per cent having more than one payer. In contrast, just over one quarter of non-African children have at least two people paying for them. Second, in terms of payers who are household members, there is an equal gender division in payment for educational expenses among non-African children. However, for African children, over 72 per cent of payers are women. Third, African children are significantly more likely to have their schooling paid for by someone who is not co-resident: approximately 13 per cent of African children compared to seven per cent of non-African children fall into this category.

Table 2.6 Person(s) paying for educational expenses of children aged 7 to 14, 2008

	All	African children	Non-African children
Proportion of children enrolled	0.980 (0.002)	0.979 (0.003)	0.985 (0.006)
More than one person pays[a]	0.110 (0.008)	0.083 (0.006)*	0.251 (0.033)
Status of payer:			
Not a household member: absent	0.070 (0.005)	0.072 (0.005)	0.059 (0.016)
Household member: not-resident	0.048 (0.004)	0.056 (0.004)*	0.009 (0.003)
Household member: resident	0.883 (0.006)	0.871 (0.006)*	0.932 (0.017)
Gender of payer if household member:			
Female[b]	0.681 (0.011)	0.723 (0.011)*	0.500 (0.034)
Male[b]	0.320 (0.011)	0.277 (0.011)*	0.500 (0.034)

Source: NIDS 2008
Note: The data are weighted. Standard errors are in parentheses. * Proportions of African and non-African children are significantly different at the five per cent level.
[a] Proportions are calculated conditional on the child attending school.
[b] Proportions are calculated including only payers who were (resident or non-resident) members of the household, and aged 15 or older.

Approximately 93 and 94 per cent of the payers for African and non-African children, respectively are household members. Table 2.7 shows that payers who are household members are most likely to be one or both of the child's parents. However, non-African children are more likely to receive support from their parents compared to African children. Approximately 92 per cent of the payers for non-African children are the child's mother, father, or both, with fathers being more likely to pay (although by a small percentage). In contrast, about 74 per cent of the payers for African children are one or both of the child's parents, with mothers being almost three times more likely to pay than fathers. Furthermore, non-African children are significantly more likely to have both their parents paying for them (21 per cent) compared to African children (seven per cent).

African children are therefore far more likely to receive financial support from someone who is not their parent. This is most likely to be the child's grandmother (approximately 14 per cent of payers) or another woman (approximately 8 per cent of payers). Thus, not only are women more

likely to be the primary physical caregivers of children but for Africans in particular, they are also most likely to pay for a child's education.

Table 2.7 Relationship of payers to children aged 7 to 14, 2008

	All	African	Non-African
Mother	0.460 (0.012)	0.489 (0.013)*	0.313 (0.032)
Father	0.220 (0.012)	0.185 (0.011)*	0.398 (0.039)
Parents	0.091 (0.008)	0.068 (0.006)*	0.207 (0.035)
Grandmother	0.115 (0.006)	0.134 (0.007)*	0.018 (0.004)
Mother & grandmother	0.004 (0.001)	0.005 (0.002)	0
Father & grandmother	0	0	0
Other woman	0.069 (0.005)	0.075 (0.006)*	0.039 (0.012)
Other man	0.028 (0.003)	0.030 (0.004)	0.015 (0.005)
Other combination of individuals	0.013 (0.003)	0.013 (0.003)	0.011 (0.004)

Source: NIDS 2008
Note: The data are weighted. Standard errors are in parentheses. The sample includes only those children where the payer is a member (resident or non-resident) of the child's household, and the payer is 15 or older. * Proportions of African and non-African children are significantly different at the five per cent level.

Of all children aged 7 to 14, a greater percentage do not live with a parent compared to the percentage that receive financial support from someone not living in the household. This suggests that many non-co-resident mothers and fathers do not pay for their children's schooling. However, given the fungibility of income, it is possible that these parents are making other financial contributions towards their children. To examine this issue, in Table 2.8, I show the contributions made by absent and non-resident parents, and explore whether these parents maintain contact with their children. Very few non-African children have non-resident parents who are household members; therefore, I only include non-African children with absent parents.

Most children see a non-co-resident parent at least several times a year. Among African children, non-resident parents (household members) are more likely to maintain contact with their children than absent parents, and there are no significant differences between non-resident mothers and fathers. For all children, where parents are absent, mothers are significantly more likely to maintain contact than fathers are. Among African children with absent parents, 8 and 31 per cent

never see their mother or father, respectively. For non-African children, a greater proportion does not see their absent parents – 17 and 37 per cent respectively. For non-co-resident parents that do maintain contact there is no information on how much responsibility they assume for the care of their children. However, with at least 99 per cent of primary physical caregivers being co-resident, this suggests that at most, the majority of non-co-resident parents are assistant caregivers.

Absent parents are also less likely to pay compared to parents who are non-resident household members. Among African children with absent parents, 50 per cent receive contributions from an absent mother and 38 per cent from an absent father (with this difference being significant). In comparison, for African children with non-resident parents, 73 and 83 per cent receive support from a non-resident mother and father, respectively (with no significant difference between the two). For non-African children, there is no significant difference in the likelihood of children with absent mothers and fathers receiving payments, at 45 and 46 per cent, respectively. When parents do pay, the contributions of non-co-resident fathers are greater than those of non-co-resident mothers and significantly so among Africans. However, given the available information, it is not possible to determine what share of the payer's income these contributions represent, and whether gender differences in payments reflect a gender gap in earnings (cf. Bhorat & Goga 2013).

Table 2.8 Contact with, and support by, absent and non-resident parents, 2008

	African				Non-African	
	Absent parents[a]		Non-resident parents[b]		Absent parents[a]	
	Mother	Father	Mother	Father	Mother	Father
Parent sees child:						
Daily	0.043 (0.009)	0.054 (0.005)	0.011 (0.008)	0	0.199 (0.063)	0.141 (0.030)
several times a week	0.141 (0.014)	0.124 (0.008)	0.098 (0.024)	0.172 (0.031)	0.189 (0.051)	0.113 (0.024)
several times a month	0.394 (0.018)	0.246 (0.009)*	0.552 (0.037)	0.512 (0.034)	0.276 (0.061)	0.168 (0.031)
several times a year	0.342 (0.017)	0.262 (0.010)*	0.317 (0.034)	0.310 (0.029)	0.169 (0.049)	0.204 (0.037)
Never	0.080 (0.009)	0.314 (0.010)*	0.022 (0.010)	0.007 (0.004)	0.167 (0.060)	0.373 (0.040)*
Proportion with parents who pay	0.496 (0.019)	0.377 (0.011)*	0.733 (0.033)	0.831 (0.023)	0.449 (0.072)	0.460 (0.043)
Last payment received	312.521(13.121)	483.869 (44.176)*	324.465 (32.009)	641.247 (57.831)*	438. 651 (106.482)	589.742 (75.920)

Source: NIDS 2008

Note: The data are weighted. Standard errors are in parentheses. The residency status of parents is determined by information collected in the household roster. *Denotes significant differences between children's mothers and fathers within each of the three categories that indicate absent or non-resident parents, at the five per cent level. Two children who were reported as receiving R130 000 as their last maintenance payment from their father were dropped from the sample.

[a]The sample includes children whose mother or father is absent from the household.

[b]The sample includes children whose mother or father is a non-resident household member.

2.5 Discussion and summary

The main objective of this chapter was to explore the gender division of labour in the provision of physical and financial childcare in South Africa - a country where the majority of children do not live with both their parents. More specifically, the chapter examined parents' involvement in the care of their children. Whilst it is difficult for parents who are not co-resident to be primary physical caregivers, it is possible for them to maintain contact with, and make financial payments towards, their children. To examine these issues I used nationally representative data that identifies caregivers and includes information on the contributions of absent and non-resident parents.

Consistent with other studies which analysed time use data, I found that women are far more likely than men to provide physical care to children. However, this study also revealed important differences among children. I distinguished between African and non-African children partly because small sample sizes make it difficult to distinguish among non-African children, but also because of the unique patterns of household formation among Africans. African children are far less likely to live with both parents, and more likely to live with only one parent (typically their mother). Temporary labour migration, which was enforced under apartheid, together with low marriage rates, help to explain these living arrangements. Despite the repeal of apartheid laws, temporary migration persists, partly because of high rates of unemployment as well as the lack of formal and low-cost housing in urban areas (Posel & Marx 2013). High rates of parental mortality are another reason for African children not living with one or both of their parents.

Whilst there are commonalities in childcare patterns across all population groups, dissimilarities in household structure have resulted in significant differences in the provision of physical and financial care for African and non-African children. The NIDS data show that whilst the majority of children in South Africa have more than one physical caregiver, most primary physical caregivers are women. When children live with their mother, they are most likely to receive primary care from their mother. Older and particularly African children are less likely to live with their mother and are therefore less likely to have their mother as their primary physical caregiver. This is mainly due to higher rates of maternal absence as children age but is also due

to a greater percentage of older children being maternal orphans. When African children do not receive primary care from their mother, they are most likely to have another woman, particularly their grandmother, as their primary caregiver. This highlights the importance of the extended family in the provision of childcare, especially among Africans. In contrast, non-African children who do not receive primary physical care from their mother are more likely to receive care from their father compared to another woman.

Although the responsibility of primary physical care is disproportionately borne by women, payment of schooling expenses is not disproportionately borne by men. Most children, particularly African children, have only one person who pays for their education. It is only possible to determine the gender of a payer who is a household member (whether resident or non-resident); but the majority of payers are household members, with only seven and six per cent of the persons paying for African and non-African children respectively being absent. Men are far more likely to take responsibility for paying for a child's schooling than to be a primary physical caregiver; but for African children only about 28 per cent of payers are men. For non-African children, approximately half of the payers are men. Although the majority of non-African children do have a co-resident father, fathers are only slightly more likely than mothers to pay for schooling. Thus although men are more involved as financial caregivers (in respect of schooling expenses), among non-Africans, women are equally involved and among Africans, women again bear the majority of the burden of care.

The majority of children have their schooling paid for by a co-resident adult, but there is evidence that some non-co-resident parents provide other forms of financial support for their children. Absent parents are far less likely to make payments than non-co-resident parents who are household members. There is no significant difference in the likelihood of a non-resident mother or father paying; however, absent mothers of African children are significantly more likely to pay for their children than absent fathers are. Among non-Africans, there is no significant difference in the likelihood of an absent mother or father paying.

In summary, a relatively small percentage of men are the primary physical caregivers of children, particularly among Africans. Furthermore, men do not take on a greater share of the burden of

paying for a child's schooling. For non-African children there is equal sharing of school costs between men and women. However, among Africans, women are significantly more likely to be paying for a child's education. With education representing a substantial portion of the direct costs of childrearing, this suggests that, overall women bear a large part of the financial childcare burden as well as assuming responsibility for physical care.

Although men may be involved in ways not captured by the data, the available national micro-data suggest that childcare in South Africa is highly gendered and that women are far more likely to be caregivers of children than men are. These findings have important implications for policy. The provision of primary physical childcare influences an individual's ability to find and maintain employment (as discussed further in Chapter Four). With women, and particularly African women, assuming much of the responsibility for physical (and financial) childcare, and with African women being the poorest group in the country, it is imperative that policymakers focus on the constraints and challenges of caring for children and introduce measures that provide more assistance in this regard. The provision of quality, affordable childcare would be an obvious place to start. In addition, policy interventions need to consider the ways in which contributions of fathers can be increased (for example by providing paternity leave) or 'enforced' (through an effective maintenance system) (Hatch and Posel 2018).

Chapter Three

The relationship between motherhood and childcare, and subjective well-being in South Africa

3.1 Introduction

Subjective well-being (SWB) as defined by Stiglitz et al. (2009: 16) includes "cognitive evaluations of one's life, happiness, satisfaction, positive emotions such as joy and pride, and negative emotions such as pain and worry". Increasingly governments are collecting data on SWB to augment measures of social progress. In South Africa, data on SWB have been collected in a number of surveys; but NIDS is the first household survey that collects this information from all adults in the household.[10]

In this chapter, I explore the implications of childcare for women's SWB (or life satisfaction), focussing particularly on co-resident minor children (aged 0-14). I examine whether differences in caregiver status (both physical and financial), firstly, moderate a relationship between a woman's SWB and children, and secondly, whether caregiving itself is significantly associated with SWB. In investigating these relationships, I distinguish between biological and other children to determine whether living with and caring for one's biological children has a different effect to living with and caring for other people's children.

In the context of parenthood, much research has pointed to children either reducing a parent's well-being or having no significant effect (cf. McLanahan & Adams 1987; Ross et al. 1990; Evenson & Simon 2005; Clark et al. 2008; Powdthavee 2009). There is evidence to suggest that *not* having children may reduce SWB but this is often in the context of struggles with infertility and women trying to fall pregnant too late in life (Hewlett 2002; McQuillin et al. 2003). Nelson et al. (2014) argue that the relevant question should not be whether parents are happier than non-parents. Rather, we need to understand the conditions under which some parents experience more

[10] Prior to NIDS, most research made use of data collected included in the Project for Statistics on Living Standards and Development (PSLSD). A disadvantage with the PSLSD data, however, is that only household heads were asked about their life satisfaction (Posel & Casale 2011).

or less happiness than other parents. Several factors, including the age of a child, and the parent's gender and marital status, are important moderators of this relationship (McLanahan & Adams 1987; Nomaguchi & Milkie 2003; Umberson et al. 2010; Aassve et al. 2012).

In South Africa, an important consideration is whether individuals are caring for their own, or somebody else's, child. In this study, 'biological children' represent women's own children. A woman's grandchild is therefore, viewed as someone else's child[11]. As shown in Chapter Two, in 2008, approximately 28 per cent of African children and 9 per cent of non-African children were cared for by their grandmother or another woman. In the international literature, there has been much focus on the association between caring for grandchildren and well-being, with many studies finding evidence of the increased stress associated with this relationship (cf. Morrow-Kondos et al. 1997; Musil & Ahmed 2002; Landry-Meyer et al. 2005; Baker & Silverstein 2008; Musil et al. 2010). However, these studies do not always compare the relationship between childcare and SWB among grandmothers, to the relationship between childcare and SWB among biological mothers. For example, is SWB lower among grandmothers looking after their grandchildren compared to mothers looking after their own children?

There is also a growing literature that compares well-being among different types of mothers. Many of these studies tend to focus on biological mothers compared to step- and/or adoptive mothers (cf. Ceballo et al. 2004; Evenson & Simon 2005; McKay et al. 2010; Shapiro & Stewart 2011). They exclude foster mothers as well as women who have taken on the responsibility of caring for other people's children but have not formally applied to do so (and who are therefore not legally recognised as fulfilling a maternal role). Studies that ignore these latter two groups of women do not provide a complete comparison of the relationship between SWB and caring for one's own children, and the relationship between SWB and caring for other people's children. Many of these studies are also located in a developed world context, and their findings may not apply to developing countries, where household formation may be far more complex.

[11] Although women may also be biologically related to "somebody else's" children, this distinction is drawn to recognise that a sizeable share of particularly African children receives care from a woman other than their mother (as explored in Chapter Three).

Another important consideration when studying the relationship between children and SWB is whether a woman is the *primary physical caregiver* of a child. Many studies that examine the relationship between children and SWB, have focused on whether there are children living in the home, or whether an individual has the status of 'parent' (for example, biological, step- or adoptive parent), or the number of children a parent may have, rather than identifying whether or not a person is the child's *caregiver*. In a study of single and married mothers, Avison et al. (2007) find that once the stressors associated with childrearing are included as control variables, being a parent can be associated with better mental health. In South Africa, where extended family living is common particularly among Africans and several women can be reported as living with the same child, it is necessary to look beyond whether a woman is co-resident with a child to identify the person who is the child's primary caregiver.

A related issue concerns whether a woman is a *financial caregiver* of a child. Prior research has shown that the additional financial responsibilities created by having children can increase a parent's level of stress. Many of these studies, however, focus on the level of household resources, or on a parent's income rather than identifying if that parent is directly responsible for paying for all or a portion of the direct expenses associated with the child (cf. Gutman et al. 2005; Cunningham & Knoester 2007).

In this study, I use national panel micro-data for South Africa to quantitatively explore the relationship among women, between living with and caring for own (biological) children and SWB, and I compare this to living with and caring for other people's children and SWB. I include *all* women who are living with and/or caring for children i.e. mothers, grandmothers, stepmothers, and foster and adoptive mothers as well as any kin or non-kin who have taken responsibility for looking after another woman's child but may not have legally formalised this relationship. I also interrogate the relationship between children and SWB in more detail, identifying whether a woman is the designated person responsible for the physical care of the child (further distinguishing between women who receive assistance with care and those who do not) and/or a financial caregiver. My analysis uses a direct measure of financial responsibility for children - whether a woman pays for, or contributes towards, a child's schooling expenses. The overall objective is to provide insight into the relationship between children and SWB within a developing

country context using a nationally representative sample that is not restricted to one demographic or geographic group.

The outline of the chapter is as follows. In the next section, I provide an overview of the literature on the relationship between motherhood, childcare and SWB both internationally and in South Africa. In section three, I describe the dataset and the research methods employed. Section four presents and analyses the results of the study and section five provides a discussion of results. Section six summarises the main findings.

3.2 Literature review

In the sub-sections that follow, I discuss some of the important factors that may affect the relationship between children and SWB, particularly in the South African context.

3.2.1 Responsibility for physical childcare

Previous research has shown that parenting can be a major source of stress (Simon 2008; Widarsson et al. 2013). As discussed by Nelson et al. (2014), being a parent can reduce well-being as it heightens negative emotions, particularly worry, anxiety and stress. Several researchers have found a negative relationship between having dependent children living at home and SWB (Shields & Wooden 2003; Evenson & Simon 2005). A primary reason is that dependent children are in need of parental care (Umberson & Gove 1989), and the chores associated with looking after a young child can increase maternal stress (Crnic & Greenberg 1990).

With women, on average, still more likely to spend more time on housework and looking after children (cf. Sanchez & Thomson 1997; Bianchi 2000; Craig & Mullan 2011; Evertsson 2014) the strains associated with childcare would be expected to affect them, on average, more than men. Children create more housework, for example, cooking, cleaning and ironing, and as noted by Glass and Fujimoto (1994), spending time on housework is associated with greater levels of depression. Gove (1984) highlights that, with women more likely to occupy nurturing roles compared to men they are more likely to suffer adverse mental health. There is also evidence to

show that women are more likely than men to suffer physical health complications as a result of parenting strain (Wickrama et al. 2001). However, it is also possible that women experience more stress when they spend less time on childcare than they had expected (Goldberg & Perry-Jenkins 2004), particularly when they hold traditional views on gender and childrearing.

'Role strain' has been identified by many researchers as potentially placing more pressure on women, particularly in recent decades with the increase in female labour force participation and women feeling that they have to perform well both at home and in their job (Cleary & Mechanic 1983; Kandel et al. 1985; Rosenfield 1989). However, Verbrugge (1983) finds that individuals with multiple roles tend to have the best health. This is consistent with broader research on social roles, which suggests that holding multiple roles can be advantageous for both mental and physical health (Sieber 1974; Barnett & Hyde 2001), in part because the rewards or successes in one role can offset the tensions or disappointments in another. However, as Raver's (2003) study of low-income mothers qualifies, the quality of a job and the occupational prestige associated with it are important factors for employment to be associated with positive psychological and parenting outcomes.

The stresses of physical childcare may be alleviated and well-being improved, by actual or perceived social support in the form of instrumental or emotional help from social networks (Mulsow et al. 2002; Manuel et al. 2012). Nomaguchi and Milkie (2003) find that new parents enjoy a greater level of social interaction with other individuals compared to those who remain childless. Similarly, Ishii-Kuntz and Seccombe (1989) show that the strengthening of social ties with other adults, and the strengthening of social networks with relatives and neighbours, can be important benefits of having children. These findings are in line with broader research, which demonstrates the importance of social relationships in improving well-being (House et al. 1988; Pittman & Lloyd 1988).

Simpson et al. (2003) show that a lack of actual or perceived support by their partner can increase depression in women on transition to motherhood. Nomaguchi et al. (2012) examine the association between paternal assistance and a mother's well-being and highlight that the *nature* of the mother's relationship with the father is an important factor. They show that a mother's

parenting stress[12] (of a child aged five or younger) is only reduced if she is assisted by her romantic partner, whether she is married to, cohabiting with or dating the partner. Parenting stress is not reduced if a mother is assisted by the biological father with whom she is not romantically involved. This is consistent with work by Thoits (2011), which describes possible mechanisms through which social relationships and social support improve well-being. Thoits argues that the most effective way to alleviate the effects of stressors is likely to be via two channels. 'Primary group members' (for example, family, relatives and close friends) provide love, concern, care and sympathy as well as instrumental assistance such as financial aid, whilst 'secondary group members' (for example, people from work, or voluntary and religious organisations) are more likely to have had similar experiences and may therefore provide support in the form of empathy, advice and coping encouragement.

In exploring the relationship between physical childcare and a woman's SWB, it is important to identify whether the woman is indeed responsible for the child's physical care. How women's responsibilities towards children are measured can also affect the nature of the relationship. For example, in a study of parents with either adoptive or biological children under the age of 18 living in the home, Cunningham and Knoester (2007) use the amount of time spent with children as an indicator of parenting burden. Contrary to their expectations, they find evidence of a negative association between time spent with children and depression and suggest that such time may be a positive aspect of parenting that allows parents to escape the more monotonous childrearing tasks.

In their analysis of gender, parenthood and anger, Ross and van Willigen (1996) find that the share of physical childcare performed in the household[13] is a factor that explains why mothers experience high levels of anger. Using the same dataset, Bird (1997) finds that after controlling for childcare, the relationship between the number of co-resident children and distress becomes negative from initially being positive.

[12] Nomaguchi et al. (2012) measure a mother's parenting stress as the average of four questions where respondents can either reply 1=strongly agree, 2=agree, 3=disagree or 4=strongly disagree. The questions are a) "Being a parent is harder than I thought it would be", b) "I feel trapped by my responsibilities as a parent", c) "I find that taking care of my child(ren) is much more work than pleasure" and d) "I often feel tired, worn out, exhausted from raising a family".

[13] This is measured using responses to the question "What percentage of all the child care and things that have to be done for the children in your household do you do?"

3.2.2 Responsibility for financial childcare

Many studies have shown that an individual's access to economic resources is positively related to SWB (cf. Headey & Wooden 2004; Zimmerman & Katon 2005; Mentzakis & Moro 2009; Pedersen & Schmidt 2009). It is therefore unsurprising that another mechanism through which the negative association between children and SWB seems to work is the additional financial burden created by children (Ross et al. 1990). Prior research has found that children add to financial strain in a household (Ross & Huber 1985; McLanahan & Adams 1987) and economic hardship can be associated with high levels of anger and depression among mothers (Ross & Van Willigen 1996; Jackson et al. 2000).

Gauthier and Furstenberg's (2010) study of financial strain among families with children in the United States (US) notes, that, financial strain and economic vulnerability tend to be measured either objectively, for example, via actual income loss or inability to meet current financial needs, or subjectively, for example, through one's perceptions of one's financial situation and concerns about such situation. Gutman et al.'s (2005) study of 305 African-American families in inner-city neighbourhoods finds that financial strain increases psychological distress in parents. Their measure of financial strain uses three indicators, namely, whether parents had difficulty paying bills, whether they felt they could not make ends meet and whether they worried about not having enough money. To determine parental well-being, Cunningham and Knoester (2007) use responses to the question, "How often do you worry that your total family income will not be enough to meet your family's expenses and bills?" to construct a measure of economic strain, which they find to be positively associated with depressive symptoms. In her study, Bird (1997) shows that economic hardship helps to explain the relationship between parenthood and distress, whilst Baruch and Barnett (1986b) identify financial strain as one of the most distressing factors for women in their role as a mother. As noted by Nelson et al. (2014), more studies ought to include measures of financial strain, to explore if these provide a reason for why there is a negative relationship between children and SWB.

3.2.3 Co-residency with and caring for biological compared to other people's children

Not all people who provide childcare are parents of the children they care for. In South Africa, among Africans in particular, many women are caring for other people's children. Several studies in the US describe the strain felt by grandparents tasked with caring for their grandchildren (Jendrek 1993; Strawbridge et al. 1997; Hayslip et al. 1998; Hughes et al. 2007). However, the cultural context also matters for this relationship. For example, in a study that compares grandmothers from different ethnic and racial backgrounds, Goodman and Silverstein (2006) find that among African-American grandmothers, custodial grandmothers (with full responsibility for care without a parent in the household) reported greater well-being (in the form of life satisfaction) than co-parenting grandmothers (who house their children and grandchildren). Furthermore, among co-parenting grandmothers, Latina grandmothers reported higher levels of well-being than African-American and white grandmothers. As Umberson et al. (2010) note, these differences are likely to be representative of historical and cultural norms in different communities.

International studies on grandmothers' well-being do not always provide a comparison between grandmothers and biological mothers who are child-carers. One study that does investigate this is Bachman & Chase-Lansdale (2005) that looks at differences in physical, mental and economic well-being between these two groups of women. Their analysis is restricted to 1 462 mothers and 90 custodial grandmothers from low-income families in Boston, Chicago and San Antonio in the US. They find that overall, custodial grandmothers experienced similar levels of material hardship, more physical challenges, and fewer mental health problems than mothers. In their study, Lee et al. (2003) focus on the relationship between childcare and physical ailments by examining the association between caring for non-ill children and grandchildren, and coronary heart disease. Their sample is drawn from the US Nurses' Health Study and all participants are therefore registered female nurses. They find that women, particularly grandmothers, with high levels of childcare demands, may have less opportunity to look after their own health and engage in preventative health care, thus putting them at higher risk of coronary heart disease.

A related field of research is the relationship between adoptive or step parenting and well-being. Here the findings are mixed. In comparing 72 adoptive children and their parents to a matched

group of biological children and their parents, Borders et al. (1998) find no significant differences between the groups for a range of outcomes. These include parents' reports on their own well-being, their parenting values and behaviours, perceptions of their child's behaviours and attitudes towards family life. Similarly, in a study of US families, Lansford et al. (2001) find that after controlling for two family processes, namely, disagreements between spouses and disagreements between mothers and children, no significant difference in well-being[14] is reported by mothers in different family structures. These include families with biological, adoptive and stepchildren.

Some studies have, however, found that stepparents have lower levels of well-being compared to biological parents (Thoits 1992; Rogers & White 1998; Shapiro & Stewart 2011) whereas research that has compared 'gaining a child' through birth, adoption or marriage has shown that becoming a step or adoptive parent may be less stressful than biological parenthood (Ceballo et al. 2004). In a review of the literature, Mckay et al. (2010) find that post-adoption depression is relatively common but not as common as depression among biological parents. A possible reason for this, as summarised by Nelson et al. (2014), could be that adoptive parents endure an arduous adoption process and thus experience more positive emotions at the conclusion of this process. Where stepparents report higher levels of well-being than biological parents, this may be because transitioning into step parenthood follows marriage, which can be related to positive well-being. Furthermore, stepchildren are likely to be older, which means that stepparents do not experience the exhaustion of caring for a young child.

'Kinship care' where children are placed in the care of family members (who may or may not be grandparents) or family friends, is another form of 'non-biological motherhood' that is also the focus of increased research. In a qualitative study of 11 carers in Australia (seven grandmothers and four aunts), Spence (2004) highlights the stress felt by these individuals in having to look after kin children. McFadden (1998) reports similar findings in her analysis of kin carers in the US as do Marden and Bellew (2014) in an evaluation of a kinship carer support programme piloted in the United Kingdom. In their analysis of kinship care in Spain, Montserrat and Casas (2006) highlight the satisfaction kin carers report as a result of fostering notwithstanding the increase in tasks that

[14] Well-being is measured by depressed effect, self-esteem and efficacy, and life satisfaction.

accompanies their role. It is possible that kin carers feel satisfaction and stress simultaneously as these emotions may be associated with different aspects of the care relationship.

While the studies discussed above provide insight into how caring for own children differs from caring for other children, the conclusions drawn are likely to be dependent on the sample and methods used as well as the cultural context. As noted by Umberson et al. (2010) in their analysis of step parenthood and SWB, various factors are important, such as the characteristics of the parents as well as the stage of life when step parenthood occurs – with different results likely depending on whether children are younger or older. In the case of kinship care and SWB, the results from the above-mentioned studies seem to suggest that the country in which the study is located is an important issue. Caring for other people's children is highly relevant in South Africa where, as shown in Chapter Two, many women, particularly African women, are living with and caring for children who are not their own.

3.2.4 Empirical evidence on the relationship between children and SWB in South Africa

A growing body of research in South Africa explores variation in and the correlates of life satisfaction or SWB. However, studies have not focussed on the relationship between SWB, children and childcare. Several researchers have begun to explore the relationship between aspects of family life and SWB in South Africa. For example, Botha and Booysen (2014) use cross-sectional data from the 2011 South African Social Attitudes Survey to show that improved family functioning (measured by the strength of attachment between members as well as the level of flexibility in relationships between members) is associated with greater individual life satisfaction and happiness.

Other recent research has used data from NIDS to explore the relationship between family life and SWB. Using the 2008 wave of NIDS, Botha and Booysen (2013a) investigate whether individuals experience different levels of SWB if they are married compared to if they are cohabiting. After controlling for material resources, socio-cultural factors and life course factors, they find no significant differences between the two marital statuses and their association with SWB. One of the life course factors that they include in their model is a dummy variable for parenthood, which

takes a value of one if an individual has at least one child, and zero otherwise. They find no significant relationship between having children (as defined by the dummy variable) and SWB for both married and cohabiting couples. However, the study did not focus on children's residency status, whether they are the biological children of co-resident adults, and whether parents are responsible for the child's physical and/or financial care. Furthermore, the sample comprises married and cohabiting adults and therefore excludes other possible carers of children who have never married, or are widowed or divorced.

In their study of differences in SWB among South Africa's four population groups also using NIDS 2008, Ebrahim et al. (2013) find a positive relationship between the number of children an adult has and their level of SWB. This positive association is found in the overall sample and in respect of Africans and Indians when population groups are analysed separately. There is no significant relationship for coloureds and whites. This study also does not focus on whether parents have children who are co-resident in the household, whether they are biological children or whether parents are responsible for the child's physical and/or financial care.

Another recent study by Posel and Casale (2015) used the NIDS 2008 data to explore differences in SWB *within* households. They compare the SWB of men and women within a married or cohabiting union and explore the factors that may explain differences in SWB. They find that the presence of young children aged 4 to 9 in the household decreases the SWB of women whereas the presence of those aged 10 to 14 increases women's SWB. The authors find no significant relationship between the presence of other people's children in the household and SWB. However, the sample is restricted to co-resident couples, thereby excluding many women who live with or care for children; and the study also does not specifically explore the relationship between SWB and childcare.

In investigating the relationship between children and SWB in South Africa, it is important to recognise that there is considerable diversity in family forms and in caregiving relationships. Many African families, in particular, are not formed specifically around the conjugal unit and many African children are not cared for by their biological mother. During the apartheid period, all individuals were compelled to live in areas designated for their population group. Africans were

forced to live in ‘homelands’ which were generally far from urban centres and had few employment opportunities and high poverty levels (Martiny & Sharp 1984; Turshen 1986). This resulted in many African labour migrants residing temporarily near or inside designated white areas where they could find work. Children were ‘left behind’ with other family members, with migrants returning periodically to their household of origin (Posel 2010). It was not uncommon for migrants, whether married or single, to enter into relationships with women in the areas they had migrated to and to have children in addition to those in their household of origin (Russell 2003).

Post-apartheid South Africa has witnessed a continuing decline in marriage rates as well as high rates of non-marital childbirth, particularly among Africans (Posel & Rudwick 2013). Female labour migration has also increased (Posel 2010) as have the rates of orphanhood (maternal, paternal and double orphanhood) (Ardington & Leibbrandt 2010). Thus, many African children reside in households without one or both of their parents. It is significant, however, that whilst many children do not co-reside with their mother, it is far more likely that their father will be absent from the household (Hall & Meintjes 2016). As shown in Chapter Two, in 2008, only about 30 per cent of all African children aged 14 or younger were living in a household where their father was resident. In contrast, approximately 72 per cent were living with their mother.

Multi- and skip-generational living is common among African families. In Chapter Two I showed that in 2008 only about 27 per cent of African children aged 14 or younger lived with both their parents. Approximately 36 per cent lived with their mother and other adults and just over 24 per cent lived with other adults only. Multi- and skip-generational living is partly a legacy of apartheid and migration; however, it continues to be reinforced by modern socioeconomic factors. For example, high levels of poverty have led to family members living together to pool resources and share risks (Klasen & Woolard 2009). Furthermore, the HIV/AIDS pandemic has resulted in many South African children losing one or both parents, with an increasing number of these children residing with extended family members, particularly grandparents (Ardington & Leibbrandt 2010).

The strength of kinship ties results in other women, in many cases grandmothers, stepping into the role of caregiver when parents are absent or have died (Russell 2003; Schatz 2007). Receipt of the government pension has given many grandmothers the means with which to provide some

financial support for their grandchildren (Budlender & Lund 2011). Whilst caring for kin presents caregivers with physical and financial challenges, many women report feeling gratification from their role as well as a sense of obligation to look after their kin (Knight & Yamin 2015).

The practice of circulating children among kin is another reason why African children live with and receive care from someone other than a biological parent (Russell 2003). Children may be distributed among extended family members to provide companionship or to help with errands. Furthermore, the decision to send a child to live with a family member may be based on that person's ability to support the child (Russell 2003).

Thus, many African women are physically and financially caring for other people's children. In Chapter Two I showed that, in 2008, approximately 18 and 10 per cent of African children were physically cared for by their grandmother or another woman, and 14 and 8 per cent had their schooling paid for by their grandmother or another, woman respectively. Thus, in exploring the relationship between childcare and the SWB of women in South Africa, it is important to identify who a child resides with and who the child's physical and financial caregivers are because in many cases this is not the child's biological mother.

3.3 Data and methods

In this chapter, I consider three specific research questions on the relationship between children, childcare and SWB among women in South Africa. First, I investigate whether living with children is significantly related to SWB, and if this differs for biological children compared to other children. Second, I examine whether the responsibility for physical childcare (both sole and assisted) explains variation in SWB among women. Third, I explore the relationship between financial childcare (in the form of paying school expenses) and SWB.

I use three waves of data from NIDS, which is the first national panel study of individuals in South Africa (De Villiers et al. 2013). The waves of data are from 2008, 2010/11 and 2012. In Chapter Two I showed that women are more likely to shoulder and feel the effects of childrearing than men. I therefore exclude men from the analysis and examine the relationship between children and

SWB among women. I focus on female adults aged 15 years and older and do not specify an upper age threshold because of the importance of grandmothers taking on the role of primary caregivers of minor children. The final sample used in the analysis includes adult women who were successfully interviewed in at least two consecutive waves of the NIDS panel and who have non-missing information on their level of SWB. Data on SWB are obtained from the adult questionnaire where individuals are asked:

> *Using a scale of 1 to 10 where 1 means "Very dissatisfied" and 10 means "Very satisfied", how do you feel about your life as a whole right now?*

This sample of women results in an unbalanced panel, which maximises the number of possible observations (a balanced panel would track the same individuals across all three waves but would result in a smaller sample size). To overcome potential problems associated with sample attrition from wave to wave, I use the panel weights supplied in NIDS. These weights help to address the problem that individuals who were re-interviewed in waves two and three are not a random sub-sample of the individuals who were surveyed in the first wave (De Villiers et al. 2013).

I also examine Africans separately from non-Africans. As shown in Chapter Two, there are different childcare patterns among Africans and non-Africans. For example, African children are far more likely to be cared for by a woman who is not their biological mother, and caregivers of African children are far more likely to be sole caregivers. It is thus possible that there are differences in the relationship between childcare and SWB between these two groups of women. Sample sizes preclude disaggregating the non-African group further (into coloured, Indian and white); but comparing non-African and African women helps to identify whether the distinctive characteristics of childcare influence the relationship between children and the SWB of African women. The final pooled sample consists of 18 824 African women and 3 884 non-African women.

To probe the relationship between 'motherhood' and SWB, I consider whether women are caregivers of children. I further disaggregate caregiving into the provision of primary physical care as the sole provider or as an assisted provider, and the provision of financial care. The focus on

caregivers, rather than on women who are (biological) mothers, recognises that in South Africa, many women provide care to children who are not their own.

As explained in Chapter Two, physical and financial caregivers are identified via questions in the child questionnaire. In this chapter, I match the PID of the caregiver to the adult PID. I am able to determine whether a woman is caring for her own or someone else's child via the birth module in the adult questionnaire, which contains the PID(s) of her biological child(ren). To ascertain whether a child (biological or other) is resident in the same household as the caregiver, I use the information on residency status contained in the household roster. A person is classified as a resident household member if they spend four or more nights a week in the household and I define a child as 'co-resident' if he or she is listed as a resident member of the same household as a woman.

In this study, 'children' are all individuals aged 14 and younger. There are two reasons for this age category. First, data on childcare are included in the child questionnaire, which only collects information on children aged 14 and younger. As discussed above, identifying the primary physical caregiver of a child[15] (as well as individual(s) who may assist[16] this person), and identifying the person(s) responsible for paying for a child's educational expenses[17] are all possible via the questions in the child questionnaire. Second, as noted in section 3.2, the relationship between children and SWB changes as a child grows older and the focus of this study is on younger children who are still living in the household.

All the variables in this chapter are derived from the perspective of the women in the sample. The key variables of interest are the number of children a woman lives with, whether she is a primary physical caregiver (sole or assisted) of at least one co-resident child and whether she is a financial

[15] Question E1 in the child questionnaire identifies the primary physical caregiver of a child. In the Wave 1 questionnaire, E1 is asked as follows: "Who is the main person responsible for making sure that this child is fed, bathed, goes to school if of school going age, helped with homework, taken care of when the child is ill, etc?" In the Wave 2 and Wave 3 questionnaires, question E1 is asked as: "Who is the person that is currently responsible for this child?" If details on a child's caregiver are missing, I change the caregiver status of any co-resident adult recorded as not a caregiver to missing.

[16] Question E3 in the child questionnaire asks, "Who else helps to care for the child?" I use this information to determine whether a woman who is a caregiver receives any assistance with care.

[17] In all three waves the child questionnaire asks the question: "Who paid for this child's educational expenses in 2007 (2009) (2011)?"

caregiver of at least one co-resident child. There are two overall categories: for the first, I derive the above variables in relation to *biological* children only, and for the second, I derive the above variables in relation to *all (biological and other people's)* children. The variables in this chapter are derived slightly differently from those in Chapter Two where the derivation is from the perspective of the child. (Further explanation of the derivation of the co-residency and caregiver variables used in this chapter is presented in Appendices A and B.)

I estimate the relationship between childcare and SWB first at the cross-section using the pooled waves of NIDS. I follow several other studies here and use pooled ordinary least squares (OLS)[18] (referred to simply as OLS for the remainder of Chapter Three) in the regressions rather than ordered probits, partly for ease of interpretation[19]. I then take advantage of the panel structure of the data to estimate fixed effects (FE) regressions[20], which is a further contribution of this study. The OLS regressions are represented as follows:

$$\boldsymbol{SWB_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \cdots + \beta_k X_{kit} + u_{it}} \quad (\mathbf{1})$$

Where *i* represents the number of individuals in the panel and can be represented as $i = 1,2,\ldots N$, and *t* represents the three waves, $t = 1,2,3$. The dependent variable is the measure of SWB, which has a minimum value of one if a person is very dissatisfied with their life and a maximum value of 10 if a person is very satisfied with their life. SWB_{it} as shown in the above model represents the level of SWB for individual '*i*' at time '*t*'. The independent variables of interest are the number of children living in a woman's household; the number of co-resident children a woman is the sole

[18] Previous South African studies that controlled for children in analysing SWB used cross-sectional models.

[19] Results are robust when I estimate the models as ordered probits at the cross-section.

[20] An analysis of the appropriate methodology was an integral part of planning this chapter. In particular I considered the blow-up-and-cluster (BUC) estimator proposed by Baetschmann et al. (2011). However, due to this literature and approach still being in its infancy I decided against using it. Furthermore, other studies that have compared a linear fixed effects (FE) model to an FE ordered logit model (using these newer approaches) when researching SWB, have found similar results for both specifications (Ferrer-i-Carbonell & Frijters 2004; Dickersen et al. 2014; Van den Berg et al. 2014). Several recent studies that have investigated the correlates of SWB (with SWB a categorical variable) have therefore chosen a linear FE model rather than an FE ordered logit approach (see, for example, Berger 2013; Angrave & Charlwood 2015; Matysiak et al. 2016). In light of the above, and given that a linear model is more readily interpretable (Berger 2013; Angrave & Charlwood 2015; Schneider & Kleindienst 2016) I decided that the best approach for this analysis would be to use a linear FE model. As highlighted by Ferrer-i-Carbonell & Frijters (2004) and confirmed by Van den Berg et al. (2014:128), "accounting for fixed effects is more important than accounting for the ordinal nature of the dependent variable."

physical caregiver of; whether a woman receives assistance with any (at least one) co-resident child that she is the primary physical caregiver of; and whether a woman is one of the payers for a co-resident child's schooling. I also include in the regressions several other explanatory variables that have been found to be significantly associated with SWB in prior research. These include age, marital status, perceived health status, importance of religious activities, level of education, and per capita household income as well as dummy variables for the waves (see Dolan et al. (2008) for an overview of SWB studies and the significance of these variables). More detail on these covariates is provided in the discussion on the estimated covariates in section 3.4[21]. The FE regressions take the following form:

$$(\boldsymbol{SWB_{it}} - \overline{\boldsymbol{SWB_i}}) = \boldsymbol{\beta_1}(\boldsymbol{X_{1it}} - \bar{\boldsymbol{X}}_{\boldsymbol{1i}}) + \boldsymbol{\beta_2}(\boldsymbol{X_{2it}} - \bar{\boldsymbol{X}}_{\boldsymbol{2i}}) + \cdots + \boldsymbol{\beta_k}(\boldsymbol{X_{kit}} - \bar{\boldsymbol{X}}_{\boldsymbol{ki}}) + (\boldsymbol{\alpha_i} - \bar{\boldsymbol{\alpha}}_{\boldsymbol{i}}) + (\boldsymbol{\varepsilon_{it}} - \bar{\boldsymbol{\varepsilon}}_{\boldsymbol{i}}) \quad \textbf{(2)}$$

where α represents the unobserved time-invariant effect for each individual and ε is the error term. As α is constant over time, $\alpha_i - \bar{\alpha}_i = 0$. In the FE model, for every individual, the within-individual average (across all time periods) is subtracted from each observation. This is the FE transformation that removes all time-constant effects.

The OLS regressions ignore the panel nature of the data and do not control for unobserved time-invariant characteristics that may affect both whether a woman is a caregiver of children, and her level of SWB. These regressions are therefore intended to provide a benchmark for comparison of the FE estimations, which do control for these time-invariant unobserved traits. For example, if a particular personality type predisposes women to being both caregivers and less satisfied with life, the OLS estimates will be biased (and more specifically, a negative relationship between SWB and caregiving will be over-estimated). The importance of controlling for unobserved characteristics is highlighted by Ferrer-i-Carbonell and Frijters (2004: 655) in their study on the importance of methodology in investigating the determinants of happiness. They find that time-invariant attributes have a very significant influence on results and surmise that:

> the effect of many other variables in the economic literature so far, be they on the individual or on the national level, will turn out to be very different when account would be taken of fixed individual traits.

[21] See Appendix C for a description of the variables included in the regression analysis as well as summary statistics.

A further advantage of the FE model is that it analyses the relationship between changes in SWB and changes in caregiving, as well as changes in other characteristics over the waves. A potential problem, however, is that with small samples, as in the case of non-African women, there may be relatively small numbers of women who change (or switch) status. This results in large standard errors, which reduce the significance of estimates. The FE model also does not address the possibility of reverse causation. For example, women who are less satisfied with life may be more likely to become caregivers. This endogeneity concern has also received little attention in the literature on SWB more generally.

3.4 Results

Table 3.1 compares the characteristics of African and non-African women in the pooled sample. African women report significantly lower levels of average SWB than non-African women, but there are also large differences in the characteristics of these two samples of women (Table 3.1). In comparison to African women, non-African women are significantly more likely to be married, to report their health as very good or excellent, to have a higher level of education (certificate, degree or diploma), and to live in richer households, all characteristics which are typically associated with higher levels of life satisfaction.

In addition, there are clear differences in caregiving status. African women are significantly more likely than non-African women to be physical caregivers of a child and one of the payers of a child's schooling. Among women who are caregivers, compared to non-African women, African women are significantly more likely to be caring and paying for other people's children, and significantly less likely to be caring and paying for their own children. Furthermore, African women are more likely than non-African women to be the physical caregivers of a larger number of children (with this difference being significant in relation to other people's children).

Assistance with physical care is more likely for non-African women than African women, significantly so in the case of own children. Moreover, African women are significantly more likely than non-African women to be the sole physical caregivers of a larger number of children both in relation to their own and other people's children.

Table 3.1 Characteristics of women, pooled sample

	African women	Non-African women
N	18824	3884
Subjective well-being	4.685 (0.025)	6.695 (0.066)*
Married	0.247 (0.005)	0.508 (0.015)*
Cohabiting	0.077 (0.003)	0.063 (0.007)
Divorced or widowed	0.142 (0.003)	0.188 (0.012)*
Religion is important	0.940 (0.002)	0.935 (0.008)
Perceived health: very good or excellent	0.589 (0.005)	0.639 (0.014)*
Grade 4 to grade 7	0.161 (0.004)	0.112 (0.007)*
Grade 8 to matric	0.574 (0.005)	0.586 (0.015)
Certificate, degree or diploma	0.113 (0.004)	0.252 (0.014)*
Log per capita household income	6.401 (0.011)	7.910 (0.036)*
Woman is primary physical caregiver of child(ren)[a] (own &/or other)	0.543 (0.005)	0.351 (0.014)*
Woman is primary physical caregiver of child(ren)[a] (own)	0.418 (0.005)	0.303 (0.013)*
Woman is primary physical caregiver of child(ren)[a] (other)	0.177 (0.004)	0.060 (0.006)*
Woman is payer for a co-resident child's schooling (own &/or other)	0.311 (0.005)	0.195 (0.011)*
Woman is payer for a co-resident child's schooling (own)	0.226 (0.005)	0.165 (0.011)*
Woman is payer for a co-resident child's schooling (other)	0.105 (0.003)	0.037 (0.005)*
Among women who are caregivers of co-resident children:		
Woman is a primary physical caregiver for own child(ren)	0.782 (0.005)	0.876 (0.014)*
If woman is a primary physical caregiver of own child(ren):		
No. of children woman is caregiver of	1.601 (0.014)	1.555 (0.038)
No. of children woman is sole caregiver of	0.727 (0.015)	0.567 (0.047)*
Woman receives assistance with any (at least one) child	0.575 (0.008)	0.693 (0.023)*
Woman is a payer for schooling for own child(ren)	0.728 (0.008)	0.844 (0.022)*
Woman is a primary physical caregiver for other child(ren)	0.326 (0.006)	0.171 (0.016)*
If woman is a primary physical caregiver of other child(ren):		
No. of children woman is caregiver of	1.653 (0.021)	1.444 (0.068)*
No. of children woman is sole caregiver of	0.764 (0.022)	0.547 (0.075)*
Woman receives assistance with any (at least one) child	0.583 (0.011)	0.617 (0.049)
Woman is a payer for schooling for other child(ren)	0.339 (0.008)	0.189 (0.023)*

Data: NIDS 2008, 2010/11 and 2012

Notes: Data weighted using panel weights. Standard errors in parentheses. *Indicates significant differences between African and non-African women at the five per cent level. [a] Children are co-resident.

In Table 3.2, I compare differences in SWB *within* the two population groups, by co-residency and caregiver status. Mean SWB and standard errors are reported in the top half of each cell whilst the number of observations is shown in the bottom half.

Table 3.2 Average level of SWB by co-residency & caregiver status, pooled sample

	African	**Non-African**
Biological children (aged 0-14)		
Women is co-resident with at least one child	4.704 (0.038)	6.278 (0.098)[#]
	7987	1555
Women is not co-resident with at least one child	4.669 (0.034)	6.926 (0.085)
	10837	2329
Primary physical caregiver of co-resident child	4.707 (0.040)	6.164 (0.102)[#]
	7347	1382
Not a primary physical caregiver	4.669 (0.033)	6.926 (0.081)
	11477	2502
Woman is the sole caregiver of all co-resident children she cares for	4.340 (0.063)[#]	5.977 (0.171)
	3119	471
Woman is assisted with at least one co-resident child that she cares for	4.983 (0.051)	6.228 (0.128)
	4221	903
Woman is a 'payer' of at least one co-resident child's schooling	4.692 (0.055)	6.163 (0.140)[#]
	3904	741
Woman is not a 'payer'	4.683 (0.029)	6.800 (0.073)
	14920	3143
All children (aged 0-14)		
Women is co-resident with at least one child	4.690 (0.028)	6.389 (0.082)[#]
	15228	2572
Women is not co-resident with at least one child	4.667 (0.060)	7.048 (0.103)
	3549	1296
Primary physical caregiver of co-resident child	4.660 (0.034)	6.166 (0.096)[#]
	9985	1674
Not a primary physical caregiver	4.714 (0.038)	6.976 (0.086)
	8581	2150
Woman is the sole caregiver of all co-resident children she cares for	4.316 (0.055)[#]	6.034 (0.161)
	4095	573
Woman is assisted with at least one co-resident child that she cares for	4.894 (0.044)	6.209 (0.120)
	5876	1091
Woman is a 'payer' of at least one co-resident child's schooling	4.635 (0.045)	6.172 (0.132)[#]
	5826	962
Woman is not a 'payer'	4.707 (0.031)	6.822 (0.074)
	12998	2922

Data: NIDS 2008, 2010/11 and 2012

Notes: Data weighted using panel weights. Standard errors in parentheses. [#]Indicates significant differences among African and non-African women, within each co-residency or caregiver category, at the five per cent level.

Among African women, there is no significant difference in average SWB when comparing women who live with at least one biological child to those who do not. Similarly, the average SWB of women who are primary physical caregivers of their own children does not significantly differ from other women. There is also no significant difference in average SWB between women who pay for a biological child's schooling and those who do not. However, women who are sole caregivers of all the biological children they care for report, on average, a significantly lower level of SWB compared to women who have assistance with the physical care of at least one biological child. Similar results emerge once all children (i.e. not only a woman's biological children) are included in the sample. African women who are living with or caring for children or paying for children's schooling do not, on average, report significantly higher or lower levels of SWB than women who do not have these responsibilities. However, once a distinction is drawn between sole versus assisted physical care, women who are sole caregivers of all children they care for report a significantly lower level of average SWB than those who are assisted with at least one child – 4.316 compared to 4.894, respectively. Of all the characteristics identified in Table 3.2, average levels of SWB among African women differ significantly only according to whether a woman is a sole primary caregiver or whether she receives some assistance in this role.

SWB is lower among African women than among non-African women across all the categories in Table 3.2. However, the patterns are different among non-African women. Average SWB levels are significantly lower among women who live with, are the primary physical caregiver of, or pay for schooling for at least one biological child. Moreover, in contrast to Africans, there does not appear to be any significant difference in SWB when comparing assisted caregivers with sole caregivers. Similar results emerge once all children are included in the analysis. Thus, on average, African and non-African women appear to differ quite markedly in how living with and caring for children (both physically and financially) are related to the level of SWB they report.

While descriptive statistics can only offer preliminary insight into relationships between variables, the figures presented in Table 3.2 suggest, that whether or not an African woman is an assisted or sole primary physical caregiver has significant implications for SWB levels. Among non-African women, living with and physically and financially caring for children seems to have a significant impact on the level of SWB, with sole and assisted physical caregiving playing very little role.

Table 3.1 showed that African and non-African women also differ across a range of demographic and financial characteristics. To examine the relationships between children, childcare and SWB more rigorously, I now conduct regression analysis whereby I control for these other characteristics that may also be associated with SWB.

A key contribution of this analysis is that I distinguish between living with and caring for *biological* versus *other people's* children and explore whether there is a different relationship with a woman's SWB. In South Africa, this is an important issue given that many women are caring for other people's children. A further contribution is that I identify whether or not a woman is a caregiver and whether this is more likely to be associated with SWB as opposed to merely having a child co-residing in the home. Furthermore, I identify whether a woman is a *physical* caregiver (further differentiating between being a sole caregiver and having some assistance with care) and/or a *financial* caregiver (specifically - is a woman paying part or all of a child's educational expenses?). In so doing, I am able to gain insight into which aspects of childcare are related to a woman's SWB.

3.4.1 African women: Biological children

Table 3.3 shows the relationship between having co-resident biological children and caring for biological children, and the SWB of African women. I estimate two sets of regressions, the first for the pooled sample (using OLS regressions), and the second for the panel sample (using FE estimations). In a simple bivariate OLS regression (results not shown) there is no significant relationship between the number of co-resident biological children aged 0-14 (hereafter referred to as 'biological children') and SWB. This relationship remains not significant when other explanatory variables are included in the regressions. There is no significant association between the number of biological children a woman is the sole primary physical caregiver of and SWB. However, if a woman is an assisted caregiver of at least one biological child, this is positively and significantly associated (at the five per cent level) with SWB. Moreover, if a woman is a payer of at least one biological child's educational expenses, this is positively associated with SWB although this relationship is only significant at the 10 per cent level.

In the FE regressions, the relationship between the number of co-resident biological children and SWB remains insignificant even after controlling for other factors (in columns iii and iv). The negative relationship between sole caregiving and SWB remains not significant whilst the positive relationships between being assisted with physical care and SWB, and paying for a biological child's schooling and SWB, are still significant (both at the five per cent level).

As discussed in section 3.2 above, women may benefit from the enhanced social ties that stem from having children. These benefits may be more likely in the case of assisted caregiving as opposed to sole caregiving, which would in part explain the positive and significant association between assisted caregiving and SWB, compared to the negative (although not significant) relationship between sole caregiving and SWB. The positive relationship between paying for a child's schooling and SWB may seem surprising, but it may represent a source of empowerment and autonomy. Prior research has shown that feelings of autonomy in one's daily life are associated with improved well-being (Ryan & Deci 2000; Reis et al. 2000; Sheldon et al. 2005). The more positive results for assisted physical childcare and financial care in the FE regressions, suggest that attitudes to childcare affect the results in the OLS specifications.

The coefficients on the control variables in the OLS regressions largely conform to findings reported in other studies of SWB in South Africa (cf. Posel & Casale 2011; Posel 2012; Botha & Booysen 2013a; Botha & Booysen 2013b; Ebrahim et al. 2013; Botha 2014; Botha & Booysen 2014). In both the pooled and panel estimations, having a high level of perceived health, being a religious person and higher levels of log per capita household income are all significant and positively related to SWB. However, in the FE models, the associations are lower than in the OLS regressions, which suggest that the OLS coefficients are biased by the inclusion of unobservable individual characteristics. In the OLS models, there is a significant U-shaped relationship between age and SWB, which is commonly reported in the South African literature and suggests that SWB is higher among younger and older African women, reaching a minimum during the earlier to middle part of women's adult years. In contrast to the results in the OLS models, in the FE specifications there is not a significant relationship between getting married and becoming more educated (achieving grade 8 to matric, or a certificate, degree or diploma), and SWB. However, the significance of the FE results may be influenced by small sample sizes where relatively few

women are switching their characteristics. For example, over the course of the panel only around five per cent of African women switched from being not married to married.

3.4.2 African Women: All children

In Table 3.4, I explore the relationship between SWB, and living with and caring for all children i.e. both biological and other people's children. In the OLS models, the results differ when only biological children are considered as the relationship between living with children and SWB is now positive and significant, becoming less positive and less significant after controls for childcare are included in the regression. A further difference is that the negative association between sole caregiving and SWB is now significant (at the five per cent level) whilst assisted childcare and paying for schooling remain positively and significantly related to SWB (at the one and five per cent levels, respectively). However, the value of the coefficient for the assisted childcare variable is smaller than when the focus is on biological children only. Similar to the results shown in Table 3.3, marriage, better self-reported health, higher education, greater per capita household income and being more religious are all significantly associated with higher levels of SWB.

In the FE regressions, women who become co-resident with one more child report an increase in SWB, but in contrast to the OLS results, the relationship is no longer significant. Among the caregiving variables, the negative relationship between sole caregiving and SWB remains significant (at the one per cent level) with each additional child that a woman becomes the sole caregiver of decreasing SWB by 0.14 points. This is greater than the OLS regression result, which indicates that each additional child for whom a woman provides sole care decreases SWB by 0.071 points (significant at the five per cent level). The relationship between paying for children's schooling and SWB remains positive and significant (at the five per cent level) but the positive association between assisted care and SWB is no longer significant. The difference in results between the OLS and FE models suggests that attitudes towards childcare influenced the results in the OLS estimations.

3.4.3 Summary of the relationship between children and SWB among African women

There is a positive relationship between co-residing with children (biological and other), although this loses significance in the FE regressions. When only biological children are considered, there is no significant relationship in either the OLS or FE models. The more positive results in the OLS estimations that include other children may reflect African women's favourable attitudes towards looking after their kin and the importance of kinship ties. For example, in her study on the role played by grandmothers in childcare, Schatz (2007) documents the sense of pride that grandmothers feel in being able to reside with and raise their grandchildren.

The negative association between SWB and children, which is commonly reported in the literature, specifically arises when women are the sole care-providers for children, and this relationship is only significant when other people's children are included in the analysis. However, African women report significantly *higher* levels of SWB when they receive assistance with childcare. This association loses significance in the FE regressions for all children but remains significant when the analysis focuses on biological children only.

There is also a positive and significant relationship when a woman pays for (or contributes towards) her own or someone else's child's education. This may reflect a woman's sense of satisfaction in investing (or being able to invest) in a child's education and future. This sense of fulfilment is highlighted by Hunter (2015), who describes how historically African mothers have attached great importance to being able to provide their children with an education. Furthermore, in their analysis of pension sharing and self-respect among Zulu grandmothers, Møller and Sotshongaye (1996) document the importance that grandmothers place on the education of their grandchildren, and on being able to contribute towards educational expenses.

In summary, financial care has a positive relationship with SWB whether a woman cares for her own or someone else's child. However, a positive association between physical childcare and an African woman's SWB only occurs when women are assisted with care and is stronger when they are providing care for their own, rather than someone else's children.

Table 3.3 Predicting SWB among African women with co-resident biological children aged 0-14, 2008, 2010/11 and 2012

	Pooled OLS		Fixed effects	
	Basic control variables	**Final model**	**Basic control variables**	**Final model**
	Column i	*Column ii*	*Column iii*	*Column iv*
No of co-resident children	0.032 (0.026)	-0.027 (0.047)	-0.041 (0.066)	-0.134 (0.083)
Age	-0.035 (0.008)***	-0.037 (0.008)***		
Age squared	0.037 (0.008)***	0.039 (0.008)***	-0.145 (0.020)***	-0.132 (0.020)***
Married	0.265 (0.069)***	0.247 (0.070)***	0.067 (0.189)	0.045 (0.188)
Cohabiting	0.048 (0.106)	0.037 (0.106)	0.338 (0.202)*	0.325 (0.202)
Divorced or widowed	0.096 (0.089)	0.105 (0.089)	0.075 (0.180)	0.096 (0.179)
Perceived health status is very good to excellent	0.492 (0.054)***	0.491 (0.053)***	0.424 (0.073)***	0.424 (0.073)***
Religious activities are important to very important	0.737 (0.103)***	0.733 (0.103)***	0.566 (0.157)***	0.571 (0.157)***
Grade 4 to grade 7	0.023 (0.080)	0.021 (0.080)	0.765 (0.326)**	0.760 (0.319)**
Grade 8 to matric	0.235 (0.082)***	0.219 (0.082)***	0.223 (0.383)	0.213 (0.378)
Certificate, degree or diploma	0.473 (0.121)***	0.443 (0.121)***	0.149 (0.462)	0.124 (0.456)
Log per capita household income	0.391 (0.029)***	0.390 (0.029)***	0.185 (0.049)***	0.186 (0.049)***
No. of co-resident children woman is sole caregiver of		-0.058 (0.057)		-0.100 (0.074)
Woman receives assistance with any (at least one) co-resident child		0.235 (0.094)**		0.275 (0.137)**
Woman is one of the payers for a co-resident child's schooling		0.136 (0.079)*		0.280 (0.123)**
Wave two	-0.838 (0.064)***	-0.805 (0.064)***		
Wave three	-0.771 (0.064)***	-0.731 (0.066)***		
R^2 (within)	0.076	0.079	0.021	0.025
N	18682	18665	18682	18665

Data: NIDS 2008, 2010/11 and 2012

Notes: Data weighted using panel weights. Standard errors in parentheses. ***Indicates significant difference at the one per cent level, ** Indicates significant difference at the five per cent level, *Indicates significant difference at the ten per cent level..

Table 3.4 Predicting SWB among African women with co-resident children (biological and other) aged 0-14, 2008, 2010/11 and 2012

	Pooled OLS		Fixed effects	
	Basic control variables	**Final model**	**Basic control variables**	**Final model**
	Column i	*Column ii*	*Column iii*	*Column iv*
No of co-resident children	0.051 (0.014)***	0.037 (0.016)**	0.029 (0.033)	0.022 (0.036)
Age	-0.032 (0.007)***	-0.037 (0.008)***		
Age squared	0.033 (0.008)***	0.038 (0.008)***	-0.143 (0.020)***	-0.128 (0.021)***
Married	0.272 (0.069)***	0.242 (0.069)***	0.062 (0.189)	0.053 (0.191)
Cohabiting	0.084 (0.106)	0.050 (0.107)	0.348 (0.202)*	0.362 (0.206)*
Divorced or widowed	0.103 (0.089)	0.105 (0.089)	0.074 (0.179)	0.108 (0.180)
Perceived health status is very good to excellent	0.493 (0.054)***	0.495 (0.054)***	0.422 (0.073)***	0.435 (0.074)***
Religious activities are important to very important	0.740 (0.103)***	0.740 (0.104)***	0.555 (0.0159)***	0.590 (0.162)***
Grade 4 to grade 7	0.021 (0.080)	0.020 (0.081)	0.776 (0.329)**	0.724 (0.331)**
Grade 8 to matric	0.246 (0.083)***	0.216 (0.083)***	0.233 (0.387)	0.147 (0.389)
Certificate, degree or diploma	0.484 (0.121)***	0.446 (0.123)***	0.161 (0.465)	0.065 (0.466)
Log per capita household income	0.418 (0.031)***	0.422 (0.032)***	0.195 (0.050)***	0.190 (0.051)***
No. of co-resident children woman is sole caregiver of		-0.071 (0.032)**		-0.140 (0.047)***
Woman receives assistance with any (at least one) co-resident child		0.178 (0.063)***		0.136 (0.103)
Woman is one of the payers for a co-resident child's schooling		0.137 (0.066)**		0.252 (0.103)**
Wave two	-0.849 (0.064)***	-0.812 (0.065)***		
Wave three	-0.780 (0.064)***	-0.737 (0.066)***		
R^2 (within)	0.077	0.081	0.021	0.026
N	18635	18370	18635	18370

Data: NIDS 2008, 2010/11 and 2012

Notes Data weighted using panel weights. Standard errors in parentheses. ***Indicates significant difference at the one per cent level, ** Indicates significant difference at the five per cent level, *Indicates significant difference at the ten per cent level.

3.4.4 Non-African women: Biological children

Table 3.5 reports the relationship between children and childcare, and the SWB of non-African women. In contrast to African women, there is a negative and significant relationship between the number of biological children and SWB in a simple bivariate OLS specification (results not shown). However, this relationship becomes less negative and less significant when other control variables are entered into the regression (column i), and is no longer significant when the caregiving variables are entered (column ii). There is a negative relationship between the number of biological children a woman is the sole primary physical caregiver of and SWB and unlike in the case of African women, this relationship is highly significant (at the one per cent level). A further difference is that if a non-African woman is an assisted caregiver of at least one biological child, this is negatively and significantly (also at the one per cent level) associated with SWB. Being a payer of at least one biological child's educational expenses is not significantly associated with SWB, which also contrasts with the significant and positive relationship for African women. The results in column i and ii therefore suggest that, for non-African women, the negative aspects of childcare account for the negative relationship between co-resident biological children and SWB.

In the FE regressions, the relationship between co-resident biological children and SWB is not significant. The association between assisted care and SWB remains negative and significant (at the five per cent level) but the other caregiving variables are not significant. This differs from African women for whom assisted care and paying for biological children are both positively and significantly associated with SWB. The results in the panel estimation suggest that selection on unobservable characteristics (such as personality) may account for the more negative relationship between physical childcare (sole or assisted) and SWB among non-African women, identified in the pooled OLS regression.

In contrast to the results for African women, fewer of the control variables are significant, which may be due to the smaller sample size for non-African women. In the OLS regressions in Table 3.5, where relationships are significant, these are broadly consistent with the findings of other studies. Being divorced or widowed is negatively and significantly related to SWB (Botha &

Booysen 2014) whilst very good to excellent perceived health status is only weakly significant (at the 10 per cent level) in the final model. Previous research has shown that for the three 'non-African' population groups, this relationship is strongest among whites and not significant among Indians (Ebrahim et al. 2013). Like African women, being more religious and living in a household with higher log per capita household income are significantly and positively associated with SWB among non-African women.

As with African women the strength and significance of the variables change in the FE regressions for non-African women. Like Africans, the association between religion and per capita household income, and SWB remains significant with the coefficients being lower in the FE regressions. In contrast to African women, very good to excellent perceived health status is not significant. The different results from the OLS regressions may be due to individual characteristics influencing the results in the OLS models, but could also be due to not many women switching their status from one wave to the next[22].

3.4.5 Non-African Women: All children

In Table 3.6, I examine the relationship among non-African women between SWB and all children i.e. both biological and other people's children. The results in the final OLS model are similar to those in Table 3.5, with a positive, but now significant (at the five per cent level), relationship between co-resident children and SWB and a negative and significant (at the one per cent level) relationship between physical caregiving (sole and assisted) and SWB. This again suggests that a negative relationship between co-resident children and SWB derives from women's physical caregiving responsibilities towards children. Unlike African women, there does not seem to be a more negative association with SWB when physically caring for other people's children compared to one's own children.

[22] A positive relationship would be expected between earning a certificate, degree or diploma, and SWB. A small sample size where few women are switching their characteristics may influence the FE results. Only four per cent of non-African women switched from not having a certificate, degree or diploma to having one, over the course of the panel.

The relationship between paying for a child's schooling and SWB is not significant in either the OLS or FE regressions. Assisted caregiving remains significantly and negatively associated with SWB in the FE estimation. With the FE models measuring changes over time, this negative result suggests that women who start physically caring for children may initially find this very difficult, even though they receive help with childcare. It may also signal other changes in a woman's life, which are not adequately controlled for in the regression. It is perhaps unsurprising that there is not a significant association between becoming a sole caregiver and SWB in the panel estimation given that, as shown in Table 3.1, the majority of non-African women who look after children fall into the assisted category.

3.4.6 Summary of the relationship between children and SWB among non-African women

Internationally and in South Africa, studies have found a negative relationship between living with children, specifically biological children, and SWB. Among non-African women, this relationship appears to derive specifically from providing care – whether as a sole or assisted care-provider. When these responsibilities are included in the OLS regression model, the negative association between living with children and SWB becomes insignificant, in the case of biological children, and positive and significant when other people's children are also considered. A reason for the more positive result for other people's children may be that parenting has been associated with higher levels of anxiety with parents worrying about their children's well-being (Nelson et al. 2014). Non-African women may feel more general anxiety about their own children than other people's children, which is possibly why living with their own children is not as much of a positive experience even after controlling for caregiving.

In the FE model, among the caregiving variables, only the assisted physical childcare variable is significant (at the five per cent level compared to at the one per cent level in the OLS model) for either biological or other children. This suggests that negative attitudes among non-African women towards physical childcare may underlie the more negative relationships in the OLS regressions. Furthermore, in the FE regressions, in contrast to African women, caring for own children compared to other people's children is not more positively associated with SWB.

Table 3.5 Predicting SWB among non-African women with co-resident biological children aged 0-14, 2008, 2010/11 and 2012

	Pooled OLS		Fixed effects	
	Basic control variables	**Final model**	**Basic control variables**	**Final model**
	Column i	*Column ii*	*Column iii*	*Column iv*
No of co-resident children	-0.169 (0.076)**	0.193 (0.133)	-0.184 (0.189)	0.056 (0.225)
Age	0.007 (0.022)	0.009 (0.022)		
Age squared	0.002 (0.023)	-0.002 (0.023)	-0.139 (0.041)***	-0.152 (0.042)***
Married	-0.080 (0.196)	-0.093 (0.198)	-0.548 (0.570)	-0.556 (0.580)
Cohabiting	0.142 (0.301)	0.186 (0.300)	0.382 (0.684)	0.461 (0.692)
Divorced or widowed	-0.507 (0.236)**	-0.509 (0.234)**	-0.142 (0.541)	-0.121 (0.545)
Perceived health status is very good to excellent	0.247 (0.136)*	0.249 (0.135)*	0.039 (0.174)	0.027 (0.175)
Religious activities are important to very important	1.024 (0.337)***	1.070 (0.338)***	0.943 (0.385)**	0.991 (0.372)***
Grade 4 to grade 7	-0.141 (0.319)	-0.149 (0.322)	0.384 (0.918)	0.393 (0.954)
Grade 8 to matric	0.042 (0.310)	0.052 (0.314)	-2.142 (1.569)	-1.947 (1.525)
Certificate, degree or diploma	-0.086 (0.344)	-0.083 (0.348)	-2.730 (1.622)*	-2.462 (1.578)
Log per capita household income	0.483 (0.062)***	0.484 (0.062)***	0.312 (0.135)**	0.327 (0.135)**
No. of co-resident children woman is sole caregiver of		-0.432 (0.158)***		-0.211 (0.210)
Woman receives assistance with any (at least one) co-resident child		-0.851 (0.227)***		-0.634 (0.264)**
Woman is one of the payers for a co-resident child's schooling		-0.023 (0.210)		-0.130 (0.272)
Wave two	-0.151 (0.143)	-0.193 (0.142)		
Wave three	-0.705 (0.152)***	-0.736 (0.153)***		
R^2 (within)	0.127	0.138	0.046	0.053
N	3848	3838	3848	3838

Data: NIDS 2008, 2010/11 and 2012

Notes: Data weighted using panel weights. Standard errors in parentheses. ***Indicates significant difference at the one per cent level, ** Indicates significant difference at the five per cent level, *Indicates significant difference at the ten per cent level.

Table 3.6 Predicting SWB among non-African women with co-resident children (biological and other) aged 0-14, 2008, 2010/11 and 2012

	Pooled OLS		Fixed effects	
	Basic control variables	**Final model**	**Basic control variables**	**Final model**
	Column i	*Column ii*	*Column iii*	*Column iv*
No of co-resident children	-0.000 (0.046)	0.141 (0.055)**	-0.085 (0.098)	-0.003 (0.097)
Age	0.009 (0.022)	0.017 (0.022)		
Age squared	0.004 (0.023)	-0.010 (0.023)	-0.140 (0.042)***	-0.159 (0.044)***
Married	-0.234 (0.194)	-0.059 (0.199)	-0.600 (0.568)	-0.546 (0.600)
Cohabiting	0.010 (0.299)	0.258 (0.302)	0.293 (0.669)	0.434 (0.699)
Divorced or widowed	-0.609 (0.237)***	-0.477 (0.237)**	-0.109 (0.541)	-0.113 (0.558)
Perceived health status is very good to excellent	0.224 (0.136)*	0.235 (0.136)*	0.024 (0.175)	0.048 (0.178)
Religious activities are important to very important	0.969 (0.340)***	1.007 (0.339)***	0.917 (0.381)**	0.976 (0.377)***
Grade 4 to grade 7	-0.114 (0.320)	-0.089 (0.319)	0.426 (0.898)	0.181 (0.839)
Grade 8 to matric	0.052 (0.311)	0.068 (0.310)	-2.074 (1.489)	-2.308 (1.483)
Certificate, degree or diploma	-0.109 (0.345)	-0.084 (0.345)	-2.662 (1.546)*	-2.807 (1.539)*
Log per capita household income	0.519 (0.064)***	0.517 (0.066)***	0.311 (0.135)**	0.326 (0.136)**
No. of co-resident children woman is sole caregiver of		-0.316 (0.113)***		-0.148 (0.173)
Woman receives assistance with any (at least one) co-resident child		-0.787 (0.176)***		-0.596 (0.246)**
Woman is one of the payers for a co-resident child's schooling		-0.038 (0.190)		-0.158 (0.279)
Wave two	-0.147 (0.144)	-0.232 (0.144)		
Wave three	-0.719 (0.154)***	-0.767 (0.156)***		
R^2 (within)	0.122	0.139	0.045	0.056
N	3832	3761	3832	3761

Data: NIDS 2008, 2010/11 and 2012

Notes: Data weighted using panel weights. Standard errors in parentheses. ***Indicates significant difference at the one per cent level, ** Indicates significant difference at the five per cent level, *Indicates significant difference at the ten per cent level.

3.5 Discussion

Previous research has highlighted that many women view motherhood and caring for children as important parts of their identity (Walker 1995; Arendell 2000; Maher & Saugeres 2007). The results of this study suggest that, in general, there is a more positive relationship between children and SWB among African women compared to non-African women. This is particularly true for African women who are assisted physical caregivers of their own children, and financial caregivers of their own or other people's children. As clarified by Iwelunmor et al. (2010), in South Africa, any study of motherhood needs to take into account the institutionalised discrimination experienced differently by the various population groups under apartheid. Thus, the relatively stronger positive relationship between mothering and SWB for African women is probably best understood by examining how attitudes towards motherhood have evolved among Africans as a result of their different historical and social context.

In her overview of how motherhood was conceptualised in 20th century South Africa, Walker (1995) notes that for many African women, their struggle against the apartheid system was framed within their role as a mother. For example, resistance to the pass law system was motivated by concern over how it would affect their children. Thus, for many African women, motherhood empowered them in their fight against oppression. Furthermore, being fertile and able to bear children has traditionally been a source of self-worth, celebration and power among African women (Walker 1995).

Cockerton's (2000) analysis of the Tswana diaspora in colonial South Africa shows how the increasing absence of men led to matrifocal households where women became more reliant on their maternal family for support. She notes that mothers became 'producers and breadwinners' with grandmothers becoming 'primary caregivers', as maternal migration increased to support the household. In the process, "both mother and grandmother shared the increasingly high status given to the position of mother" (Cockerton 2000: 149).

Cockerton's study highlights how the increasing absence of men strengthened the bonds between women as they shared the childcare role. The concept of 'shared mothering' is described by

Magwaza (2003) in her examination of differences in the mothering experience between African and white mothers in Durban. She documents her family's move from an 'African' to a 'white' neighbourhood and laments having to give up the practice of 'shared mothering' that she participated in with her African neighbours in her first neighbourhood. Whilst hers is a small qualitative study, it does show the importance placed by Africans on sharing the motherhood experience amongst relatives and neighbours.

To understand caring work in 'black[23]' families, Bozalek (1999) examines the family profiles of a group of African and coloured social work students at the University of the Western Cape. She finds that a 'good parent' is not only one who physically cares for their child, but also includes parents that migrate to find jobs elsewhere so that they can financially support their child(ren). Even if these parents only see their children for a few weeks each year, they are still viewed as 'good caregivers'.

In a study of schooling and kinship in Umlazi Township, KwaZulu-Natal, Hunter (2015) discusses the importance African women attach to being able to pay for their children's schooling. Furthermore, Wright et al. (2014) explore the concept of dignity among women living in township and former homeland areas, and document the loss in dignity a woman reports feeling when she cannot pay for things for her child's education. Studies that focus on care, including financial care, by grandmothers have also noted that there is a sense of pride in being able to look after one's grandchildren (Schatz 2007). A study of Zulu grandmothers highlights that they place great value on the education of their grandchildren (Møller & Sotshongaye 1996). Several grandmothers consider supporting school-age children as the most useful contribution of their pension income to the well-being of all family members.

The above studies offer insight into why paying for the schooling of children (both own and other people's children) is associated with higher levels of SWB among African women. They also help to explain why assisted care of biological and other children would be positively associated with SWB among African women, while sole caregiving would have a negative

[23] As noted by Bozalek (1999:86): "'black' is a socially and politically constructed category that includes Africans, 'coloureds' and Indians."

relationship. The sole provision of childcare may also capture aspects of a woman's relationship with the father of the child. If she is in a relationship, being a sole caregiver may reflect that she has a partner with patriarchal or traditional views on childcare. If she is not in a relationship, this may indicate that the father is also absent from the child's life.

The results of this study suggest that, in contrast to African women, motherhood and childcare is, on average, a less positive experience for non-African women. Unlike African women, for whom motherhood and childcare seem to be shaped by unique cultural and historical contexts, the experience of non-African women appears to be more in line with the findings in the international literature. Non-African women appear to feel more burdened by the responsibility of childcare and may be less likely to derive the same sense of autonomy, social connectedness and empowerment from childbearing and childrearing. A further difference is that for African women, physically caring for other people's children appears to be a more negative experience compared to looking after biological children whereas among non-African women there is little difference between caring for own and other people's children.

It may be surprising that assisted care has a negative association with SWB among non-African women. A possible reason could be that 'assistance' is more in the form of 'delegating' childcare to someone else, as opposed to seeing it as a 'shared and collective experience' among kin. Walker (1995) and Bozalek (1999) both refer to the practice among middle-class women of hiring domestic workers to help with childcare. In Chapter Two, it was shown that non-African children are more likely to receive care from someone who is unrelated and is working for pay. Thus, 'assisted childcare' among non-African women may be less of a bonding and positive experience compared to African women.

Another reason for this negative association may be that non-African women are more vulnerable to 'role strain'. Approximately 55 per cent of non-African women who are assisted caregivers, are employed. Among Africans who are assisted caregivers, the number is much lower at 35 per cent. Thus despite being helped with physical childcare, women may still experience the negative burdens of these dual roles. It may also be possible that non-African

women who start receiving assistance with childcare, were not coping with their childrearing role; hence the need for help.

3.6 Conclusion

In this chapter, I used regression analysis to explore the relationship between children and women's SWB in South Africa. The analysis distinguished between the presence of children in the household, and women's responsibility for the physical (sole and assisted), and financial care of children, and compared the relationships between African and non-African women.

Researchers have noted that under desirable circumstances such as sufficient income, assistance with childcare, and support from partners and other family members, children may improve a person's well-being (Ross et al. 1990). Whilst it may be difficult to achieve all these conditions, it is important to explore what improves women's well-being as this would enable society at large to offer them greater support where required, which will positively affect the lives of women and the children they care for. In contrast to many other studies, and those conducted in South Africa, the analysis in this chapter did not focus only on biological mothers. Rather, I considered all women who provide care to children, and explored whether the provision of childcare helps explain (or accounts for) the negative association that is often found between children and SWB. Due to large differences in caregiving status and socioeconomic circumstances, I distinguished African women from non-African women.

Among African women, there is evidence of a positive relationship between childcare and SWB, particularly when a woman is the assisted physical caregiver of her own children, and when she is paying for the schooling of her own or somebody else's children. A negative relationship between childcare and SWB is most evident when an African woman is a sole caregiver of someone else's child. In contrast, caring for children (both own and other) is a far more negative experience among non-African women, with physical care and paying for a child's education negatively associated with SWB. Furthermore, the negative aspects of care seem to explain much of the negative association between living with children and SWB. Unlike African women, there

seems to be very little difference in SWB when a non-African woman cares for her own children compared to somebody else's children.

In this chapter I showed that childcare is significantly associated with a woman's level of SWB and I argued that history and cultural context may be important factors that account for the different relationships observed among African and non-African women. I showed that when analysing the relationship between children and SWB it is insufficient to focus only on whether women live with children, and important to look at whether a woman is caring for children. It is also important to distinguish between physical and financial care, and to categorise physical care into sole or assisted. I also showed that because many non-mothers in South Africa are actively assuming childcare duties, the focus should not simply be on mothers, but all women who are looking after children. The analysis of panel data highlighted the importance of accounting for a woman's unobservable fixed character traits when exploring the relationship between SWB and childcare.

The chapter provided insight into how living with and caring for children is related to a woman's level of SWB. The findings in this study show that women are not a homogenous group of caregivers. There are clear differences between population groups, for example with assisted childcare having positive and negative associations with the SWB of African and non-African women respectively. It would be worthwhile for future research to explore qualitatively the possible reasons for these differences. For example, is a likely explanation (as outlined in the discussion in the previous section) that with more non-African compared to African caregivers currently employed, the negative result for non-African women reflects the difficulties women experience in trying to receoncile their dual roles of worker and caregiver (albeit with assistance). A useful line of enquiry could be to ask women (both African and non-African) to describe in more detail the type of assistance that they receive. This may reveal important differences among women regarding their childcare preferences, and may provide insight into the type of help with childcare that would make it easier for different groups of women to sustain employment.

A further important distinction raised in this study is the difference between caring for own compared to other people's children, particularly among African women. Caring for one's own children (with assistance) is a more positive experience than caring for other people's children. This suggests that policy related to childcare should make it possible for women to retain their roles of primary physical caregivers but that women receive assistance and support in this role (for example, through flexible working hours or the provision of childcare centres at places of employment). By increasing the SWB levels of many women in South Africa, policy interventions of this type may also contribute to the quality of life of the children to whom they provide care.

Appendix A: Derivation of variables related to co-resident biological children aged 0-14	
Number of co-resident biological children	The birth module in the adult dataset[24] lists the PIDs of a woman's biological children. I match the PIDs of children to the PIDs contained in the household roster dataset. I determine whether children are resident in the same household as their mother using data on residency status contained in the household roster. I determine the ages of children from data contained in the individual derived and household roster datasets. For each woman, I count the total number of biological children (aged 0-14) that are resident in her household.
Number of co-resident biological children a woman is the primary physical caregiver of	I match the PID of a mother plus the PID of her co-resident[25] biological child (from the adult dataset) to the PID of a child's primary physical caregiver plus the PID of the child[26] (from the child dataset). For each woman, I count the total number of co-resident biological children that she is the primary physical caregiver of.
Number of co-resident biological children that a woman is the sole caregiver of	If a woman receives no assistance in caring for a co-resident biological child, then she is the 'sole caregiver' of that child. For each woman, I count the total number of co-resident biological children that she is the sole caregiver of.
Woman is the sole caregiver of all the co-resident biological children that she cares for	This is a dummy variable that has a value of one if a woman has no one assisting her with <u>all</u> co-resident biological children that she is the primary physical caregiver of.
Number of co-resident biological children that a woman cares for that she is assisted with	If a woman receives assistance from at least one other person in caring for a co-resident biological child, then she is the 'assisted caregiver' of that child. For each woman, I count the total number of co-resident biological children that she is the assisted caregiver of.

[24] All adults in the adult dataset are resident members of their household. Their household identifier is listed alongside their PID in the adult dataset.

[25] I determine whether a biological child is co-resident with his/her mother from data on residency status contained in the household roster dataset.

[26] All children in the child dataset are resident members of their household. Their household identifier is listed alongside their PID in the child dataset.

Woman receives assistance with any (at least one) co-resident biological child	This is a dummy variable that has a value of one if a woman has at least one other person assisting her with <u>at least one</u> co-resident biological child that she is the primary physical caregiver of.
Number of co-resident biological children for whom a woman is the 'first payer' for the child's educational expenses	I match the PID of a mother plus the PID of her co-resident biological child (from the adult dataset) to the PID of a child's 'first payer[27]' plus the PID of the child (from the child dataset). For each woman, I count the total number of co-resident biological children for whom she is the 'first payer' of their educational expenses. *Variables for 'second payers', 'third payers' and 'fourth payers' are derived using the same method*
Woman is one of the payers for a co-resident biological child's educational expenses	This is a dummy variable that takes on a value of one if a woman is either the first, second, third or fourth payer for at least one co-resident biological child's educational expenses.

[27] In wave one, up to three persons can be identified as paying for a child's schooling. In waves two and three, up to four persons can be identified as paying for a child's schooling.

Appendix B: Derivation of variables related to all co-resident children (biological and other) aged 0-14	
Number of all co-resident children	The household roster dataset lists the PIDs of the members of all households. I determine the ages of household members from data contained in the individual derived and household roster datasets. For each woman, I count the total number of children that are resident in her household.
Number of co-resident children a woman is the primary physical caregiver of	I match the PIDs of women from the household roster dataset to the PIDs of primary physical caregivers from the child dataset. I determine whether women identified as caregivers are resident in the same household as the child(ren) that they care for using information on household residency contained in the household roster dataset. For each woman, I count the total number of co-resident children that she is the primary physical caregiver of.
Number of co-resident children that a woman is the sole caregiver of	If a woman receives no assistance caring for a co-resident child, then she is the 'sole caregiver' of that child. For each woman, I count the total number of co-resident children that she is the sole caregiver of.
Woman is the sole caregiver of all co-resident children that she cares for	This is a dummy variable that has a value of one if a woman has no one assisting her with <u>all</u> co-resident children that she is the primary physical caregiver of.
Number of co-resident children that a woman cares for that she is assisted with	If a woman receives assistance from at least one other person in caring for a co-resident child, then she is the 'assisted caregiver' of that child. For each woman, I count the total number of co-resident children that she is the assisted caregiver of.
Woman receives assistance with any (at least one) co-resident child	This is a dummy variable that has a value of one if a woman has at least one other person assisting her with <u>at least one</u> co-resident child that she is the primary physical caregiver of.

Number of co-resident children for whom a woman is the 'first payer' for the child's educational expenses	I match the PIDs of women from the household roster dataset to the PIDs of 'first payers' from the child dataset. I determine whether women identified as 'first payers' are resident in the same household as the child(ren) that they pay for using information on household residency contained in the household roster dataset. For each woman, I count the total number of co-resident children for whom she is the 'first payer' of their educational expenses. *Variables for 'second payers', 'third payers' and 'fourth payers' are derived using the same method*
Woman is one of the payers for a co-resident child's educational expenses	This is a dummy variable that takes on a value of one if woman is either the first, second, third or fourth payer for at least one co-resident child's educational expenses.

Appendix C: Description of variables and summary statistics

Description of variables used in the regression analysis	
Name of variable	**Description**
No. of co-resident children	See appendix A (biological children) and B (all children) for a detailed explanation of variables related to co-resident children.
Age	Age in years
Age squared	Age x Age
Married	Dummy variables for a woman's marital status.
Cohabiting	
Divorced or widowed	
Perceived health status is very good to excellent	Dummy variable indicating a woman's perceived health status: 1 indicates 'excellent' or 'very good'; 0 indicates 'good' 'fair' or 'poor'
Religious activities are important to very important	Dummy variable indicating the importance of religious activities in life: 1 indicates 'very important' or 'important'; 0 indicates 'unimportant' or 'not important'.
Grade 4 to grade 7	Dummy variables for a woman's level of education.
Grade 8 to matric	
Certificate, degree or diploma	
Log per capita household income	Log of per capita household income
No. of co-resident children woman is sole caregiver of	See appendix A (biological children) and B (all children) for a detailed explanation of variables related to co-resident children.
Woman receives assistance with any (at least one) co-resident child	
Woman is one of the payers for a co-resident child's schooling	

Table C.1 Summary Statistics (unweighted data)

	African	Non-African
N	18824	3884
Subjective well-being		
Observations	18824	3884
Mean (Standard Error)	4.601 (0.017)	6.496 (0.038)*
No. of co-resident children		
Observations	18824	3884
Mean (Standard Error)	0.689 (0.007)	0.644 (0.015)*
Age		
Observations	18824	3884
Mean (Standard Error)	39.381 (0.132)	42.376 (0.269)*
Age squared		
Observations	18824	3884
Mean (Standard Error)	18.805 (0.122)	20.774 (0.243)*
Married		
Observations	18776	3872
Mean (Standard Error)	0.233 (0.003)	0.403 (0.008)*
Cohabiting		
Observations	18776	3872
Mean (Standard Error)	0.063 (0.002)	0.083 (0.004)*
Divorced or widowed		
Observations	18776	3872
Mean (Standard Error)	0.157 (0.003)	0.156 (0.006)
Perceived health status is very good to excellent		
Observations	18792	3880
Mean (Standard Error)	0.561 (0.004)	0.591 (0.008)*
Religious activities are important to very important		
Observations	18787	3876
Mean (Standard Error)	0.938 (0.002)	0.960 (0.003)*
Grade 4 to 7		
Observations	18798	3872
Mean (Standard Error)	0.185 (0.003)	0.215 (0.007)*
Grade 8 to matric		
Observations	18798	3872
Mean (Standard Error)	0.529 (0.004)	0.540 (0.008)
Certificate, degree or diploma		
Observations	18798	3872
Mean (Standard Error)	0.082 (0.002)	0.145 (0.006)*
Log per capita household income		
Observations	18824	3884
Mean (Standard Error)	6.276 (0.007)	7.151 (0.018)*
No. of co-resident own children woman is sole caregiver of		
Observations	18807	3874
Mean (Standard Error)	0.288 (0.005)	0.201 (0.009)*

Table C.1 Summary Statistics (unweighted data) continued

	African	Non-African
Woman receives assistance with any (at least one) co-resident child (own)		
Observations	18817	3876
Mean (Standard Error)	0.224 (0.003)	0.233 (0.007)
Woman is one of the payers for a co-resident child's schooling (own)		
Observations	18824	3884
Mean (Standard Error)	0.207 (0.003)	0.191 (0.006)
No. of co-resident children woman is sole caregiver of		
Observations	18537	3812
Mean (Standard Error)	0.463 (0.007)	0.274 (0.011)*
Woman receives assistance with any (at least one) co-resident child		
Observations	18552	3814
Mean (Standard Error)	0.317 (0.003)	0.286 (0.007)*
Woman is one of the payers for a co-resident child's schooling		
Observations	18824	3884
Mean (Standard Error)	0.309 (0.003)	0.248 (0.007)*

Data: NIDS 2008, 2010/11 and 2012

Notes: Standard errors in parentheses. *Indicates significant differences among African and non-African women, at the five per cent level.

Chapter Four

Motherhood, marital status and employment amongst African mothers in South Africa

4.1 Introduction

Recent South African studies have shown that women are more likely to live in poverty than men (Budlender 2005; Posel & Rogan 2012), and that African women are the poorest population group (Leibbrandt et al. 2010). A large body of international research shows that amongst women, single mothers, on average, tend to have relatively less access to resources (cf. Misra et al. 2007; Brady & Burroway 2012; Maldonado & Nieuwenhuis 2015). However, there is a paucity of research on the economic status of single mothers in South Africa.

In their study on 'lone mothers', Ntshongwana et al. (2015), use nationally representative micro-data from 2011 to show descriptively that lone mothers in South Africa are more likely than non-lone mothers to live in poverty and are less likely to be working. They suggest that a primary reason is the conflicting roles of primary caregiver and primary breadwinner. The study defines a lone mother as a woman who is living in the same household as her dependent (aged 0-17) biological or non-biological child but not living with a partner or spouse. By their definition, all lone mothers are the primary caregivers of children. It is also possible that lone mothers are married but that their partner is absent from the household for reasons of labour migration.

In this study on the economic status of mothers, I augment their analysis in three ways. First, I identify single mothers not according to the co-residency of a partner but rather by a woman's marital status. More specifically, I define a single mother as a mother who is neither married nor cohabiting with a partner (and who therefore was never married, divorced or widowed). Including married mothers in a sample of single mothers is likely to lower measures of poverty if single mothers who are married are more likely to receive

financial support from a man. I therefore compare the economic status of mothers according to their marital status (and not the residential status of a partner).

Second, to probe the tension between the roles of single mothers as primary caregivers and primary breadwinners, I distinguish among mothers according to whether or not they are the primary physical caregivers of children. As shown in Chapter Two, not all biological mothers in South Africa are the primary caregivers of their own children. In this chapter, I focus on biological mothers because the South African Maintenance Act 99 of 1998 legally obliges them as parents to support their children financially (Department of Justice and Constitutional Development 2010)[28].

Third, I include mothers who are not co-resident with their children in the analysis. In their study on lone mothers, Ntshongwana et al. (2015) are unable to identify mothers who are not co-resident with their children, which they acknowledge as a weakness. Previous research has shown that non-co-resident mothers are more likely than co-resident mothers to be labour force participants and unmarried (Posel & van der Stoep 2008). Thus, their exclusion from the analysis may underestimate employment levels and hence the economic status of single mothers.

In this study, I explore two main questions. First, how does the economic status of single mothers compare to that of married mothers or those cohabiting with partners? Second, what is the relationship between primary caregiving and employment among mothers, and is this relationship stronger among single mothers than those that are married or in a cohabiting relationship? I also probe whether assistance with care and co-residing with one's children are significantly associated with finding work.

[28] Maintenance is payable by any person who is responsible to raise the child i.e. biological parents, adoptive parents, legal guardians and grandparents (when parents cannot pay) (Department of Justice and Constitutional Development 2012). While the birth module in NIDS makes it possible to identify biological mothers, data constraints preclude the identification of all women who fall into the other categories. I therefore restrict the analysis to biological mothers.

The data for the study come from the first three waves of NIDS, a panel survey that tracks individuals over time. These data offer several advantages for an analysis of the economic status of mothers, including the ability to identify whether mothers provide primary care to their own (or someone else's) child. Information is also collected on private transfers received from married husbands who are non-resident household members (for example because of labour migration) and maintenance payments from men no longer in a relationship with their child's mother. In addition, the panel structure of the data offers some control for problems of endogeneity, which arise when exploring the relationship between caregiving and employment. These problems are discussed in further detail in Section 4.3 below.

The outline of this chapter is as follows. In section two I discuss the existing literature on the economic status of single compared to married mothers both internationally and in South Africa. I also provide an overview of the relationship between being responsible for childcare and being in employment. Section three examines the dataset in more detail as well as the research methods employed. Section four outlines the results of the study and section five concludes with a summary and brief discussion of the findings.

4.2 Literature Review

4.2.1 The economic status of single compared to married mothers

There is a large international literature on single mothers, particularly in North America and Europe, which consistently identifies them as a vulnerable group of women (Misra et al. 2007; Mutchler & Baker 2009; Lopez & Velasco 2011; Brady & Burroway 2012; Schaefer & Edin 2013). A primary reason for their adverse status is that unlike married women, they are less likely to have direct access to the income of a man (Sørenson & McLanahan 1987; Sørenson 1994). Whilst maintenance laws in many countries require their former partners to make regular financial contributions towards childrearing, in reality many fathers default on maintenance payments (Skinner & Davidson 2009; Laird 2011; Cuesta & Meyer 2012; Skinner 2013).

Studies have shown that some factors can improve the financial circumstances of single mothers. These include the presence of other adults who are either employed or receiving other forms of income (for example, social security or retirement income) in their household (Snyder et al. 2006; Brady & Burroway 2012). Another factor is greater labour market attachment, but many single mothers encounter obstacles in trying to reconcile their conflicting roles of primary caregiver and primary breadwinner. Single mothers who have a stronger labour market attachment are less likely to be poor (Lichter et al. 2005; Gornick & Jäntti 2009) and policies that work to enhance women's employment have been found to have powerful effects in reducing poverty among single mothers (Misra et al. 2007, 2012; Maldonado & Niewenhuis 2015). Examples include public provision of high-quality subsidised childcare facilities as well as parental leave.

Women, on average, continue to earn less than men (Seccombe 2000; Oostendorp 2009). Thus, even when employed, single mothers without access to the income of other adults (particularly the higher earnings of men) might still be relatively disadvantaged. Increasing employment alone may not always lift a single mother out of poverty, and other studies highlight the positive effects of social transfer income packages and other allowances (for example, tax credits) (Chzen & Bradshaw 2012; Misra et al. 2012; Schaefer & Edin 2013).

Few studies have been conducted in South Africa on the incidence of single motherhood. However, as shown in Chapter Two, approximately 69 per cent of African children and 32 per cent of non-African children were living in households without their father in 2008. A number of studies document the very low marriage rates in South Africa, particularly among African women (Casale & Posel 2002; Gustafsson & Worku 2006; Hosegood et al. 2009; Posel et al. 2011). Coupled with the high percentage of African mothers who have never been married and do not cohabit with a partner (Posel & Rudwick 2013), this suggests that many women in South Africa are single mothers.

A number of studies, both quantitative and qualitative, have explored questions related to teenage mothers (cf. Jewkes et al. 2009; Mkhwanazi 2010; Shefer et al. 2013), the majority of whom are likely to be single. A study by Statistics South Africa, which uses the General

Household Survey of 2015 shows that in the year preceding the survey approximately 5.3 per cent of females aged 14 to 19 years were pregnant (Statistics South Africa 2016a). This is a decline from the mid-1980s when the rate was over 10 per cent (Makiwane 2010) but it still represents a large number of young women.

There is also a paucity of research on the economic status of mothers by their marital status. However, using data from the General Household Survey 2010, Meintjes and Hall (2012) show that amongst children living in the lowest income quintile, just over 50 per cent were living with their mother only. Furthermore, in their research on 'lone mothers', Ntshongwana et al. (2015) use the General Household Survey 2011 to show that 67 per cent of lone mothers fall below a poverty line of R607 per capita per month. In contrast, 37 per cent of non-lone mothers fall below this threshold. Whilst the above studies do not compare mothers by their marital status, they do suggest that households that include women living with children and without a partner are more likely to be economically disadvantaged.

Several qualitative studies highlight the adverse circumstances of teenage mothers and the challenges they face. These include their difficulty in staying in school, largely due to childcare responsibilities as well as the social stigma attached to their situation (Kaufman et al. 2001; Chigona & Chetty 2007; Mkhwanazi 2010). Lower levels of educational attainment in turn compromises their employability and earnings, and teenage mothers ultimately face higher levels of poverty and lower levels of income than women who fall pregnant at a later age (Panday et al. 2009). While rates of teen pregnancy are high in South Africa (Panday et al. 2009), this does not always lead to marriage. Remaining single can exacerbate the socioeconomic circumstances of women who fall pregnant as teenagers.

In South Africa, there are two formal mechanisms whereby single mothers can obtain financial assistance. They can claim maintenance from the father of their child and they can obtain financial support from the government through social welfare grants. Parents are required to pay maintenance for their children regardless of their marital status (Department of Justice and Constitutional Development 2010). Child maintenance payments are obtained via the private maintenance system; however this system is fraught with administrative and

enforcement problems (Goldblatt 2005; Bonthuys 2008a, 2008b). Many fathers who are no longer in a relationship with their children's mother therefore evade their responsibility to pay for their children (Patel & Hochfield 2011; Patel 2012). A further complication is that given South Africa's high unemployment rate, many fathers lack resources and are therefore judged non-liable to pay maintenance (Budlender & Lund 2011). As shown in Chapter Two, many women in South Africa therefore carry the burden of financial childrearing with little or no assistance from the biological father.

Married mothers whose spouses have migrated to find work may also receive contributions from non-co-resident fathers. Remittances have historically been a valuable source of income for many households, although there is some evidence that these transfers have been declining in the post-apartheid period (Posel 2010), which may be partly linked to the dramatic expansion of the social grant system (Jenson 2003; Leibbrandt et al. 2012). In Chapter Two I showed that a father who is a non-resident household member is more likely to contribute towards his children than one who is absent from the household altogether. In 2008, for example, just over 83 per cent of African fathers who were non-resident but household members contributed financially towards maintaining their children. In contrast, only 38 per cent of absent fathers (who were not household members) transferred income for their children.

In addition to private transfers (maintenance payments and remittances), an important form of income support available to mothers is the Child Support Grant (CSG) provided by the state. This is a means-tested grant paid to the primary caregiver of a child aged less than 18 years[29], which in 2016 was R360 per month. To qualify for the grant in 2016, the caregiver could not earn more than R42 000 per annum if single and more than R84 000 if part of a couple (South African Social Security Agency 2016). Since the CSG's inception in 1998, coverage increased from approximately 22 000 child beneficiaries to almost 12 million children in 2015 (Hall et al. 2016). The advantage of the CSG is that it operates within the

[29] When the CSG was introduced in 1998, it was limited to children younger than seven. Age eligibility has increased since then (Hall et al. 2016). From 2009, the grant was available to children aged 14 years and younger and in 2012 it was extended to children under the age of 18 (Hall 2016).

framework of 'Follow the child' and hence can be accessed by a child's caregiver irrespective of whether or not they are the child's parent.

The CSG is an invaluable source of income for many mothers, but the value of the grant is low and does not cover the true cost of raising a child (Zembe-Mkabile et al. 2015a). Despite very high coverage, problems also remain with potential recipients lacking the necessary documentation to access the grant, and the system still suffers from administrative inefficiencies (Zembe-Mkabile et al. 2015b). Moreover, the CSG does not explicitly include a support component for the primary caregiver (normally the mother) of the children, and thus ignores the implications of childrearing for women (Goldblatt 2005).

In a study of the role of social security in respecting and protecting the dignity of lone mothers in South Africa, Wright et al. (2014) document that not being able to meet their children's material needs adversely affects a woman's dignity. In some cases, where women feel increasingly desperate about their inability to adequately care for their children, their mental health is affected and their thoughts can turn to suicide and infanticide. For many mothers, the CSG has improved their sense of dignity, particularly in helping them in their childcare roles, although there are some negative consequences of being grant recipients, including stigma and censure.

4.2.2 The relationship between childcare and employment

Looking after children, particularly young children, can be energy-intensive and time-consuming (Becker 1985). International research has shown that giving birth is strongly associated with labour force withdrawal (Jeon 2008) and that having children can constrain a mother from being in employment if childcare options are not available or are unaffordable (Presser & Baldwin 1980; McRae 2003; Viitanen 2005; Lee 2007). Uunk et al.'s (2005) comparative study of 13 countries within the European Union found that in countries with more generous provision of public childcare, the effect of childbirth on female labour supply was less negative. Similar results are obtained by Del Boca et al. (2008) and Geyer et al. (2015) in their research on European countries.

Childcare options available to working mothers are either formal or informal. Formal childcare facilities, for example crèches or early childhood development centres, would generally require the payment of fees, unless they are subsidised by the government or are public sector facilities. Much international research has focused on the relationship between the costs of childcare and mothers' labour supply decisions. In an examination of childcare arrangements and labour supply, Del Boca (2015) finds that childcare policies seem to have stronger effects on maternal labour supply among women who are at the lower end of the income distribution. Studies that have compared the relationship between childcare costs and maternal employment by a mother's marital status have generally shown a negative and stronger effect amongst single mothers (cf. Han & Waldfogel 2001; Connelly & Kimmel 2003; Doiron & Kalb 2005). This result is unsurprising given that single mothers, on average, have a lower socioeconomic status than married mothers and are thus less likely to be able to afford formal childcare.

In South Africa, formal childcare options are available via the market with some subsidisation by the government. A common feature of apartheid-era South Africa was the employment of a domestic worker (typically an African woman) by families (typically white) to assist with childrearing. This practice has continued to the present day (although the employment of domestic workers is more likely to be a feature of class and not simply race). There is also widespread market-based provision of childcare in the form of crèches, playschools and preschools. However, all these formal childcare options are primarily available to those who can afford them (Seekings & Moore 2013).

Recent South African research has provided some insight into the relationship between children and employment. In their work on job search and unemployment, Posel et al. (2014) use nationally representative panel data to show that women living with young children aged four to eight were less likely to transition into employment from 2008 to 2010. Although childcare is not a focus of this study, their results suggest that having to care for minor children may be significantly and negatively associated with a woman's ability to search for, and find work.

A study by Cichello et al. (2014) that also examines labour market transitions in South Africa from 2008 to 2010 shows that for each additional child aged six or under, a woman is six percentage points more likely to move out of regular employment. The same study shows that an additional child (aged six or under) is associated with a two percentage point increase in the likelihood of moving into employment. These seemingly contradictory results may reflect that women transitioning out of employment are primary physical caregivers and do not have help with childcare. Those who are moving into work may not be primary physical caregivers, or may receive assistance with caregiving, which would make it easier for them to work. Finding work may be a necessity for many women after having children due to the additional financial burden children create. The study does not distinguish employment transitions according to the co-residency status of children and it may be that women transitioning into work are those who have migrated from their household of origin to pursue better work opportunities, leaving their children behind to be cared for by someone else.

The objective of the South African government's Early Childhood Development (ECD) policy is to assist children from the time they are born (Hall et al. 2016). For children whose parents or caregiver's income falls below a certain level, a feature of this policy is the payment of a means-tested subsidy to a registered ECD childcare centre that the child attends. However, the amount is only R15 per child and is meant to cover infrastructure expenses, salaries, equipment purchases and two meals a day per child (van der Berg et al. 2016). ECDs that are subsidised still tend to charge fees, which means that children from the poorest families remain excluded (Biersteker 2012). For example, a study of 18 ECDs in the Western Cape that were serving communities where a significant percentage of households were poor enough to qualify for subsidies, found that the monthly fees ranged from R30 to R450. For many parents and caregivers, these fees are likely to be too expensive (Carter et al. 2008). Another obstacle for many women is that the costs of transporting their children to an ECD centre may be prohibitively high (Ntshongwana 2010).

A further problem is that the government allocates insufficient funding to build and maintain infrastructure (Financial and Fiscal Commission 2015) which would make it difficult for

many ECDs, particularly those in poorer areas, to adhere to quality benchmarks. Previous research has also shown that, particularly in poorer areas, ECD centres are not registered and therefore cannot access the subsidy, and in the poorest of areas, there are insufficient resources to set up a centre (Biersteker 2012). As noted by the Minister of Basic Education (Motshekga 2015), only a third of all young children are exposed to formal childcare or education outside the home and among the poorest 40 per cent of children, this falls to only a fifth of young children.

Another element of public policy that provides some childcare assistance is the Community Work Programme (CWP) offered by the Department of Cooperative Governance and Traditional Affairs. The CWP offers unemployed individuals the opportunity to work two days a week (or the monthly equivalent), in work that has been identified as 'useful' by the local community. As at March 2016, the CWP operated in 212 sites across 203 municipalities throughout South Africa, with plans to increase this number in 2017 (South African Government 2016). Examples of such 'useful work' include working in schools and ECDs (Wiltshire 2016). A CWP would therefore add value to these facilities but parents or caregivers would still need to pay fees for their children to attend.

If formal childcare is too costly, or is not available, many parents make informal arrangements. Care by grandparents is a feature of many countries with their level of involvement being determined by socioeconomic and cultural factors, and also influenced by how much governments spend on formal childcare (Del Boca 2015). Arpino et al. (2010) show that in Italy, where approximately 30 per cent of grandparents care for their grandchildren on a daily basis[30], help by grandparents has a significant and positive effect on mothers being in employment. Studies in the US have documented the increase in multi-

[30] In a comparison of 10 European countries, Hank and Buber (2009) find that the probability of grandparents providing care is lowest in Mediterranean countries. However, conditional on the provision of any grandchild care, a larger number of grandparents in Italy, Spain and Greece care more regularly than those in other countries in the study (The Netherlands, France, Austria, Germany, Switzerland, Sweden and Denmark). Possible reasons include the closer family relations reported in Mediterranean countries, which may result in grandparents only reporting that they provided childcare if the intensity of care has passed a relatively higher threshold. Thus, childcare activities that involve 'low-key' support may not be reported. Furthermore, lower levels of female labour force participation and publicly provided childcare in Mediterranean countries suggest that fewer grandparents need to help with childcare, but those who do, help an employed mother and need to assist more frequently.

generational living as well as the importance of kin support via co-residence particularly for mothers who are unmarried when their child is born (Mutchler & Baker 2009; Pilkauskas 2012; Dunifon et al. 2014). In China, where there is much emphasis on female employment, grandmothers are an integral part of childcare (Short et al. 2002). Grandparents in many nations are an important resource in helping their adult children and grandchildren, not only with physical care but also with financial support (Deleire & Kalil 2002; Goodman 2007; Kemp 2007).

Given that formal childcare is likely to be unaffordable and unavailable to a large number of South African women, many rely on informal care arrangements. A number of studies have described the importance of kinship ties and the role played by extended family members in providing help and support in raising children (Magwaza 2003; Russell 2003; Schatz 2007; Schatz & Ogunmefun 2007; Moore 2013; Seekings & Moore 2013). Multi- and skip-generational living is common, particularly among Africans. In contemporary South Africa, this is partly a product of the migrant labour system enforced under apartheid (Posel 2010; Budlender & Lund 2011), but has been reinforced by more recent socioeconomic factors, for example, the need to share risk and resources due to high unemployment rates (Klasen & Woolard 2009). These types of living arrangements would make it easier for extended family members to help mothers with childcare.

As shown in Chapter Two, in 2008, the majority of mothers who were primary caregivers received help with care. Furthermore, approximately 18 and 10 per cent of African children received primary physical care from their grandmother or another woman, respectively. Other quantitative work has shown that care by grandmothers makes it possible for African mothers to migrate from the household in search of employment (Posel et al. 2006; Ardington et al. 2009).

Mothers seeking employment in South Africa not only have to overcome the challenge of finding childcare, but also face the challenge of finding work in a labour market with persistently high unemployment rates. The official (strict) unemployment rate in the third quarter of 2012 was estimated at 25.4 per cent but when the non-searching unemployed

(individuals who are available to work but have stopped actively looking) were included, the broad unemployment rate was 33.3 per cent (Development Policy Research Unit 2013). Unemployment rates among women have been consistently higher than those among men (Casale 2004; Statistics South Africa 2016b). For example in 2015, the official unemployment rate for women was approximately four percentage points higher than that for men. When discouraged work seekers are included in the calculation, the rate among women is approximately nine percentage points greater than for men (Statistics South Africa 2016c). One reason why the strict and broad rates of unemployment diverge more for women than for men is that women face greater childcare constraints, making active job seeking more difficult (Posel et al. 2014).

Single working mothers, on average, would be expected to face even greater obstacles to employment than married mothers or mothers who live with their partner. Not only are single mothers far more likely to be the primary breadwinner for their family (increasing the importance of securing employment), but without a co-resident partner they may be less likely to receive help with childcare. Their adverse economic circumstances may also mean that they are less able to afford childcare. This problem is experienced by single mothers internationally (Mason 2003; Son & Bauer 2010; Dodson 2013), and is described by Ntshongwana (2010) in an overview of the childcare challenges faced by lone mothers in South Africa.

In this study, I add to the very small body of literature on single mothers in South Africa. I compare the economic status of mothers according to their marital status and then explore the relationship between childcare responsibilities and employment among mothers using national longitudinal data. I investigate whether this relationship is more evident among single mothers than married mothers, and explore whether mothers who receive assistance with childcare are more likely than those who are sole care providers to secure employment.

4.3 Data and methods

As in the previous two chapters, the data for the analysis are sourced from the first national panel study of individuals in South Africa, NIDS (De Villiers 2013). I use the first three waves of data from 2008, 2010/11 and 2012. The sample that I analyse includes all African mothers who are of working age (from age 20 to 59) who have at least one living biological child younger than 15. Hereafter, I refer to these women as mothers. I focus on African women as they constitute the largest percentage of women in this group of mothers (approximately 85 per cent) and the sample size of non-African women in this group is too small to generate robust disaggregated estimates. Furthermore, as shown in Chapter Two, childcare patterns are different among Africans, with many women caring for other people's children, and many mothers not caring for their own children. They also receive less assistance with childcare than non-African mothers do. The study therefore explores the relationship between the particular patterns of childcare among African mothers and their access to employment.

I restrict the age of children to younger than 15 for two reasons. First, in NIDS, data on primary physical caregivers[31] (hereafter referred to as caregivers) are collected through the questionnaire administered to (or about) children, who are defined as aged 0 to 14. Second, younger children generally demand more of their mother's or caregiver's attention and time and childcare responsibilities for this group of children would therefore be expected to be more strongly related to women's labour force participation. All references to children hereafter relate to children within this age group.

To generate the sample of mothers, I determine all women who are biological mothers via the birth module contained in the adult dataset[32]. I identify the household identifier and PID

[31] Question E1 in the Child Questionnaire identifies the primary physical caregiver of a child. In the Wave 1 questionnaire, E1 asks: "Who is the main person responsible for making sure that this child is fed, bathed, goes to school if of school going age, helped with homework, taken care of when the child is ill, etc?" In the Waves 2 and 3 questionnaires, question E1 asks: "Who is the person that is currently responsible for this child?" If details on a child's caregiver are missing then I change the caregiver status of any co-resident adult recorded as not a caregiver to missing.

[32] Information is collected on all children ever born as well as whether these children are still alive.

of children in the household roster dataset and then match this to the household identifier and PID of mothers and children, respectively from the adult dataset. The 'household resident' variable contained in the household roster dataset allows me to identify whether or not a child is co-resident with his or her mother. In NIDS, an individual is a household resident if they usually spend at least four nights a week in the household.

I identify mothers who are caregivers of at least one child living in the same household (either their own or somebody else's child) by matching the PID of a child's caregiver (contained in the child[33] dataset) with the mother's PID contained in the adult dataset. Information on a mother's residency status is obtained from the household roster dataset. In the child questionnaire, after the primary physical caregiver is identified, respondents are asked, "Who else helps to care for the child?" I use this information to determine whether a mother who is a caregiver receives any assistance with care.

I separate mothers according to their marital status, with one group of women being either married or co-habiting with their partner (hereafter referred to as married), and a second group who have never married, or been widowed or divorced (hereafter referred to as single). The final sample of mothers is 2949 observations with the final pooled sample used in the study consisting of 7 343 African mothers, 4 571 of whom are single mothers and 2 802 are married mothers[34]. This is an unbalanced panel, which means that the number of possible observations is greater than a balanced panel, which would track the same individuals across all three waves. I use the panel weights supplied in NIDS to overcome potential problems associated with sample attrition from wave to wave. These weights help to address the problem that individuals re-interviewed in waves two and three are not a random sub-sample of the individuals surveyed in the first wave (De Villiers et al. 2013)[35].

[33] All children in the child dataset are resident members of their household. Their household identifier is listed alongside their PID in the child dataset.

[34] Mothers in the final sample have the same marital status and are mothers, in each wave.

[35] A comparison by population group shows that by far the highest attrition rates are amongst coloured, Indian and white respondents who constitute the non-African group in this study. Between waves one and two, attrition of coloured, Indian and white respondents was approximately 26 percent, 39 percent and 53 percent respectively. Between waves two and three the rates of attrition for these groups was approximately 18 percent, 36 percent and 50 percent. In comparison for Africans the attrition rate from wave one to two was 18 percent and from wave two to three, it fell to 13 percent (Brown et al. 2012; De Villiers et al. 2013).

To address the first research question that compares the economic status of single and married mothers, I conduct a descriptive analysis using the pooled sample. I also use descriptive methods to explore the second question on the relationships between caregiving, assisted caregiving, co-residency and employment. In addition, I take advantage of the panel structure of the data and estimate this relationship in a multivariate context, using a fixed effects (FE) logit model. This model helps to address the problem of endogeneity that stems from the omission of variables in the regression. Specifically, an FE model controls for time-invariant unobservable characteristics that are difficult to measure (Williams 2015). These would include personality traits such as motivation and self-discipline, which if not accounted for would bias the results. For example, a more ambitious woman may be more likely to be working and not a caregiver, which would overestimate a negative relationship between being a caregiver and not being in employment. The model also makes it possible to observe what happens to changes in employment as a mother switches from not being a caregiver to becoming one. A potential limitation of the FE model, however, is that it cannot control for unobservable characteristics that change over time. The model also does not control for the problem of reverse causality. In the South African context of high unemployment rates, it may be that because a mother cannot find employment, she takes on primary care responsibilities (Budlender & Lund 2011). This means that an inverse relationship between primary care and mother's employment may be overstated[36].

The dependent variable in the FE model is being in employment, with the FE logit model represented as (Hamerle & Ronning 1995: 413):

$$P(y_{it} = 1|x_{it}) = \frac{\exp(\alpha_i + x'_{it}\beta)}{1 + \exp(\alpha_i + x'_{it}\beta)}, \qquad i = 1, \dots, \mathrm{N}; t = 1, \dots, \mathrm{T}$$

The dependent variable *y* takes on a value of 1 if individual *i* is employed in period *t*, or a value of 0 if individual *i* is not employed in time *t*. The individual-specific, time-invariant

[36] One way to address the problem of reverse causality would be to use an instrumental variable (IV), which in this case would be correlated with a woman's care-giving status but not with her employment status (cf. Gornick et al. 1998; Gelbach 2002). However, there was no suitable instrument available in the NIDS data.

error term is given by $\alpha_{i.}$ The vector of covariates associated with individual i in time t is represented by x'_{it}. The three main independent variables of interest are changes in whether a mother is a primary physical caregiver of at least one child, changes in the number of children that a mother is the assisted primary physical caregiver of, and whether a mother becomes non-co-resident with all of her biological children. I would expect a negative relationship between caregiving and employment and a positive association between assistance with care and having a job. As discussed in section 4.2, South African mothers may migrate from their household of origin in search of work (particularly from rural areas), leaving the responsibility of childcare to a family member. Thus, I would expect a positive relationship between no longer being co-resident with all one's children and employment status. Other control variables include age squared, number of years of schooling, number of co-resident pensioners, number of co-resident working adults, number of co-resident children, whether a mother receives the CSG and whether she lives in an urban area. These are similar to the control variables used in other studies that estimate the predictors of employment status (cf. Wu & Eamonn 2011; Essers 2014; Posel et al. 2014).

4.4 Results

Table 4.1 shows that African mothers aged 20 to 59 in the pooled sample are significantly more likely to be single than married: just over 60 per cent of African mothers are single. Among single mothers, 10 per cent are not co-resident with *any* of their children, which is significantly more than the approximately seven per cent of married mothers who are not co-resident. This may be due to single mothers having a greater need to migrate to find employment in order to support their families, leaving their children behind in the care of others.

Table 4.1 Counts and proportions of African mothers by marital status, pooled sample (unweighted)

	Single	Married
N	4571	2802
Proportion of mothers	0.620	0.380*
	(0.006)	(0.006)
Proportion: Co-resident with at least one biological child	0.896#	0.935#*
	(0.005)	(0.005)
Proportion: Not co-resident with any biological children	0.104	0.065*
	(0.005)	(0.005)

Data: NIDS 2008, 2010/11 and 2012

Notes: Standard errors in parentheses. *Indicates significant difference between single and married mothers at the five per cent level. #Indicates significant difference between co-resident and non-co-resident mothers, within each marital category, at the five per cent level.

In Table 4.2, I describe the individual characteristics of African mothers by their marital status. A lower employment rate would be expected among single mothers because their responsibilities for childcare make looking for, and accessing, work more difficult. However, this may be offset by their need to secure employment if they are the primary breadwinner in their household. Table 4.2 shows that there is no difference in the employment rates of single and married mothers. Single mothers, on average are significantly younger and more educated. They are also less likely to be caregivers, and those who are caregivers look after significantly fewer children. All of these factors would be associated with a greater likelihood of employment (Cichello et al. 2014; Posel et al. 2014). At the same time, however, single mothers are significantly less likely to receive help with childcare, which may explain why, overall, there is little difference in the employment rates of the two groups of women.

More assistance with childcare may also be a reason why employed married mothers earn a significantly higher average monthly income compared to employed single mothers. There is little difference in the likelihood of these two groups of employed mothers being caregivers but approximately 52 per cent of employed single mothers (who are caregivers) are assisted which is significantly less than the 70 per cent of employed married mothers

who are caregivers and who receive assistance. A further reason for the difference in earnings could be tenure at the current main job. The majority of employed mothers state that they have a 'main job' but single mothers, on average, have been working at their main job for significantly fewer years. This suggests that married mothers in a main job have more experience than single mothers in a main job, which may also explain the difference in average earnings.

Table 4.2 also shows that both married and single mothers, on average, have more biological children than they are co-resident with, and that mothers who are caregivers are caring for other children in addition to their own. This highlights the importance of not restricting the analysis of caregiving and employment to mothers who care for their own children, particularly in South Africa, where many women are caring for other people's children.

Overall, single mothers are significantly more likely than other mothers to be recipients of the CSG. In 2012 a caregiver was only eligible to receive the grant provided they did not earn more than R33 600 per annum if single, or R67 200 combined income if married[37] (Eyal & Woolard 2013). Employed single mothers, on average, earn below the threshold, and their earnings are significantly lower than those of employed married mothers, which helps to explain why single mothers are more likely to be grant recipients. In general, mothers without work are significantly more likely to receive the CSG compared to employed mothers.

Only about eight per cent of mothers whether single or married, reports receiving contributions from non-resident or absent household members. This indicates that relatively few single and married mothers rely on maintenance receipts and remittance income. Among single mothers, where a child's father is not co-resident in the household, this highlights the lack of financial support from many fathers.

[37] CSG requirements do not specify how a cohabiting couple should be treated.

In Table 4.3, I probe the relationship between mother-child co-residency, being a caregiver and employment status. Mothers who are co-resident with at least one of their children are significantly more likely to be caregivers. Those who do not live with their own children may become caregivers of other people's children but as shown in Table 4.3, a much smaller percentage of non-co-resident mothers are caregivers. Non-co-resident *single* mothers are significantly more likely to live in an urban area and to be employed compared to co-resident *single* mothers (the differences for married mothers, by co-residency status, are not significant). This suggests that single mothers are more likely to be temporary labour migrants, leaving their children behind in the care of others in order to move to urban areas where they are more likely to find work. A possible factor contributing to the migration of single mothers is that single co-resident mothers who are caregivers and employed are less likely to receive assistance with childcare compared to other employed mothers who are caregivers. A lack of jobs that allow mothers to reconcile employment with sole caregiving responsibilities may compel women to search for work opportunities elsewhere. In contrast, just over 70 per cent of employed co-resident married mothers who are caregivers receive help with at least one child.

Table 4.2 Individual characteristics of African mothers by marital status, pooled sample

	Single	Married
Age	31.934 (0.160)	37.058 (0.194)*
Years of schooling	9.973 (0.058)	9.097 (0.094)*
Urban area	0.523 (0.011)	0.547 (0.013)
Average total number of biological children	1.662 (0.019)	2.025 (0.027)*
Average number of co-resident biological children	1.347 (0.020)	1.701 (0.026)*
Childcare & co-residence:		
Mother is caregiver[a]	0.838 (0.009)	0.876 (0.009)*
Mother is caregiver[a] and assisted with at least one child	0.547 (0.012)	0.666 (0.013)*
If caregiver[a], average no. of all children caring for	1.738 (0.021)	1.986 (0.029)*
If caregiver[a], average no. of own children caring for	1.503 (0.019)	1.775 (0.026)*
Employment & income:		
Employed[b]	0.400 (0.011)	0.398 (0.013)
Monthly earnings if employed[c]	2696.005 (130.899)	3570.404 (309.488)*
If employed, employed in 'main job'	0.753 (0.015)	0.691 (0.020)
If employed in 'main job', average no. of years at job	4.640 (0.196)	6.326 (0.377)*
If employed, mother is caregiver[a]	0.811 (0.014)	0.843 (0.016)
If employed and caregiver[a], mother assisted with at least 1 child	0.517 (0.020)	0.703 (0.022)*
Receives contributions (including maintenance, remittances)	0.080 (0.006)	0.077 (0.006)
Receives CSG	0.710 (0.010)	0.550 (0.013)*
Receives CSG if employed	0.616 (0.017)$^{\alpha}$	0.475 (0.022) $^{\alpha}$*
Receives CSG if not employed	0.773 (0.011)	0.598 (0.016)*

Data: NIDS 2008, 2010/11 and 2012

Notes: Data weighted using panel weights. Standard errors in parentheses. *Indicates significant difference between single and married mothers at the five per cent level. $^{\alpha}$ Indicates significant difference between employed and not employed mothers, within each marital category, at the five per cent level.

[a]Mother is a caregiver for her own and/or someone else's child(ren).

[b]An employed mother is working in one or more of the following categories: main job, second job, casual work, self-employment, helping friends in their business.

[c]All income measures are inflation adjusted. The base month is April 2012.

Table 4.3 Individual characteristics of African mothers by marital & co-residency status, pooled sample

	Single		Married	
	Co-resident	***Not co-resident***	***Co-resident***	***Not co-resident***
Mother is caregiver	0.937	0.153[#]	0.934	0.103[#]
	(0.006)	(0.024)	(0.007)	(0.024)
Living in an urban area	0.504	0.655[#]	0.546	0.557
	(0.011)	(0.030)	(0.013)	(0.048)
Employed	0.381	0.528[#]	0.390	0.496
	(0.011)	(0.034)	(0.014)	(0.051)
Employed & caregiver, &	0.514	0.605	0.704*	0.583
assisted with at least 1 child	(0.020)	(0.114)	(0.022)	(0.232)

Data: NIDS 2008, 2010/11, 2012

Notes: Data weighted using panel weights. Standard errors in parentheses. *Indicates significant difference between single and married mothers at the five per cent level. [#]Indicates significant difference between co-resident and non-co-resident mothers, within each marital category, at the five per cent level.

Table 4.4 summarises the household characteristics of single and married mothers. In comparison to married mothers, single mothers, on average, live in households with significantly lower total household income, lower labour market earnings and higher grant income. The share of labour market earnings in total household income is also significantly lower on average than in the households of married mothers (the share is calculated for each household, and then averaged across all households). In contrast, grant income as a share of total income in single mothers' households is significantly higher. Previous research has shown that in higher income deciles, average income from the labour market is greater than average income from state grants (Leibbrandt et al. 2012). Earnings from employment make a substantial contribution to economic status and provide protection against poverty (Finn & Leibbrandt 2013).

Single mothers' households include significantly more children, working-aged adults and pensioners. On average, there are more employed working-age men in married mothers' households and more employed working-age women in single mothers' households, with

both differences being significant. With men typically earning more than women this may be an underlying reason why average labour market earnings are greater in married mothers' households. There are significantly more pensioners, and state pension recipients in the households of single mothers. Together with the greater number of CSG recipients shown in Table 4.2, this would help to explain why single mothers' households report higher grant income.

Table 4.4 shows that single mothers live in households that are significantly larger and include significantly more children than married mothers. Per capita measures, which do not recognise economies of scale and the lower consumption needs of children, may therefore underestimate income among single mothers in particular. To control for differences in household size and composition, I apply equivalence scale adjustments. I follow Posel et al. (2016) and use the parametric form of the equivalence scale:

$$\text{Adult equivalence scale} = (\text{Number of adults} + 0.5 * \text{Number of children})^{0.9}$$

The economies of scale parameter of 0.9 and adult equivalent measure of 0.5 have been used in previous South African poverty studies (May et al. 1995; Woolard & Leibbrandt 2001; Posel et al. 2016). A parameter of 0.9 indicates that increasing the number of adults in a household from one to two would require household expenditure to increase by 87 per cent ($2^{0.9}=1.87$), whilst the measure of 0.5 indicates that children incur half the household expenses as adults (Posel et al. 2016). Table 4.4 shows that these adjustments increase average individual income in the households of both single and married mothers. However, they do little to narrow the gap in income between these two groups of households.

Table 4.4 also shows that single mothers who are *not* co-resident with their children live in households with a significantly higher per adult equivalent income (adjusted for economies of scale) than those who are co-resident. Whilst there is a significant difference in income between married and single mothers who are co-resident with their children, the difference is smaller and not significant between non-co-resident mothers. This highlights that single mothers who are *not* co-resident with their children have greater access to resources, and excluding these women from the analysis would underestimate the economic status of single mothers.

The analysis thus far has shown that single mothers, on average, are economically worse off than married mothers (even after adjusting for differences in household size and composition). However, not all single mothers are equally disadvantaged. Single mothers who do not live with their children live in households where average income is comparable to that of married mothers. They are also less likely to be caregivers and more likely to be employed than co-resident single mothers, suggestive of a negative relationship between childcare and employment. Non-co-resident single mothers are also significantly more likely to live in an urban area than co-resident single mothers. The descriptive findings therefore suggest higher rates of temporary labour migration among single mothers compared to married mothers.

Before using regression analysis to examine the relationship between caregiving, assisted caregiving, co-residency and employment, I probe the relationship between assisted caregiving and employment via descriptive analysis. In Table 4.5, I identify mothers who are primary physical caregivers for at least one co-resident child (their own and/or someone else's). I investigate whether they receive help with childcare and identify the individuals most likely to assist them with care.

Table 4.4 Household characteristics of African mothers by marital status, pooled sample

	Single	Married
Household income:		
Average total household income[a]	4662.154 (122.811)	6394.771 (261.217)*
Average labour market income	2661.659 (104.309)	4780.179 (245.068)*
Average grant income	1086.205 (23.041)	609.065 (20.764)*
Average remittance income	169.197 (15.596)	187.438 (40.525)
Average imputed rental income	641.437 (43.201)	733.665 (47.644)
Average other income[b]	103.657 (15.522)	84.423 (12.719)
Labour market income as share of household income	0.393 (0.008)	0.550 (0.010)*
Grant income as share of household income	0.385 (0.007)	0.241 (0.007)*
Remittance income as share of household income	0.040 (0.003)	0.043 (0.004)
Household composition:		
Average no. of resident household members	6.309 (0.084)	5.202 (0.057)*
Average no. of resident children	2.625 (0.040)	2.157 (0.035)*
Average no. of resident adults aged 15-59	3.364 (0.049)	2.922 (0.035)*
Average no. of resident employed men aged 15-59	0.258 (0.012)	0.551 (0.015)*
Average no. of resident employed women aged 15-59	0.714 (0.018)	0.471 (0.017)*
Average no. of resident adults aged 60 and older	0.312 (0.011)	0.116 (0.008)*
Average no. of resident state pension recipients	0.238 (0.009)	0.085 (0.007)*
Per capita household income:		
Per capita household income	983.473 (48.592)	1435.681 (65.932)*
In co-resident mothers' households	872.323 (50.302)[#]	1394.04 (67.798)*
In non-co-resident mothers' households	1729.587 (154.106)	1983.028 (267.781)
Income per adult equivalent adjusted for economies of scale	1362.406 (71.345)	1986.244 (87.354)*
In co-resident mothers' households	1284.893 (78.512)[#]	1971.31 (91.439)*
In non-co-resident mothers' households	1882.725 (155.074)	2182.534 (286.293)

Data: NIDS 2008, 2010/11, 2012

Notes: Data weighted using panel weights. Standard errors in parentheses. *Indicates significant difference between single & married mothers at the five per cent level. [#]Indicates significant difference between co-resident & non-co-resident mothers within each marital category at the five per cent level.

[a] All income measures are inflation adjusted. Base month is April 2012. Income is calculated for mothers with complete information on all components of household income. This accounts for just under 92 per cent of mothers in the sample. The components of total income are labour market income, government grants, other government income, investment income, remittances received, subsistence agriculture income and imputed rent for owner-occupied housing.

[b] Other income consists of other income from government, investment income and subsistence agricultural income.

4.4.1 The relationship between childcare, receiving assistance with childcare and employment: Descriptive analysis

Table 4.5 shows that compared to mothers without employment, employed mothers are less likely to be caregivers, but this is only significant among those who are married. Both single and married mothers that are employed care for significantly fewer children compared to their non-employed counterparts. This suggests a negative relationship between childcare and a mother's employment, although the causality cannot be established (mothers who provide childcare for more children may be less able to secure employment, or employed women may care for fewer children). Preliminary results also suggest a stronger negative association between childcare and employment among married mothers. Single mothers, in contrast, may face greater pressure to find employment and to be primary caregivers even when working.

Working mothers who are primary caregivers would require help to cope with the demands of caring for children and being in employment. As expected, employed married mothers are more likely to receive help with caring for at least one child than their non-employed counterparts, but contrary to expectations, employed single mothers are less likely to receive help with childcare than their non-employed counterparts (although neither of these differences is significant). Among mothers who are married, those who are employed care for significantly fewer children and receive assistance with more children than non-employed married mothers (although the latter difference is not significant). Among single mothers, those with employment care for significantly fewer children, but they also have help with significantly fewer children than non-employed single mothers. There is some descriptive evidence, therefore, of a positive association between assistance with childcare and employment among married mothers, although not among single mothers.

In Table 4.5, I show that a primary reason why single mothers receive less help is that they are significantly less likely to be assisted by the child's father (or father figure). Married mothers would be expected to receive more help from the child's father who in many instances will be the mother's spouse or co-resident partner. Married mothers are also more likely to have help from the child's mother figure (the child's biological[38], adoptive, foster or stepmother), and sister.

Table 4.5 describes the importance of grandmothers in providing assistance, particularly for single mothers. Compared to married mothers, single mothers are significantly more likely to receive help from the child's grandmother regardless of employment status. This is unsurprising given that single mothers are more likely to live with pensioners (Table 4.4), and as highlighted in section 4.2, many grandmothers in South Africa play an active role in caring for their grandchildren.

Among single mothers, however, those with a job are significantly less likely to have help from the child's grandmother, which appears to be the main reason why employed single mothers receive less help with childcare than those that are not working. Employed single mothers are more likely than other single mothers to be labour migrants, and although they may receive assistance from grandmothers (or other family members) in the care of children they have 'left behind', this will not be reflected in the mother's destination household. At her destination household, an employed single mother may be caring for fewer children, which leads to her receiving less help.

[38] As shown in Table 4.2, African mothers can be the primary physical caregiver for their own and/or other people's children. Where they are the primary caregiver for someone else's child, they may receive assistance from the child's biological mother.

I now use FE regression analysis to investigate further the relationship between changes in a mother's caregiving and co-residency status, and her employment status. Studies in other countries have found that childcare is negatively and significantly associated with finding work, and that there is a positive relationship between having help with care and finding a job. I examine if similar relationships exist in South Africa, and explore whether these associations differ according to a mother's marital status. I also investigate whether living apart from one's children is positively associated with finding employment.

Table 4.5 Assistance with care for African mothers who are caregivers of own and/or other people's children, by marital and employment status, pooled sample

	Single		Married	
	Employed	**Not employed**	**Employed**	**Not employed**
Mother is a caregiver	0.811 (0.014)	0.859 (0.011)	0.843 (0.016)	0.900 (0.010)#*
Mother is a caregiver and assisted with at least 1 child	0.517 (0.020)	0.566 (0.014)	0.703 (0.022)*	0.647 (0.017)*
If mother is caregiver, average number of children:				
she is caregiver of	1.641 (0.031)	1.800 (0.029)#	1.852 (0.045)*	2.068 (0.038)#*
she is assisted with	0.760 (0.033)	0.892 (0.030)#	1.249 (0.052)*	1.193 (0.040)*
If mother is caregiver, she is assisted with at least one child by:				
the child's father figure[ab]	0.084 (0.010)	0.092 (0.009)	0.474 (0.024)*	0.408 (0.017)*
the child's mother figure[c]	0.048 (0.008)	0.062 (0.007)	0.107 (0.015)*	0.133 (0.014)*
the child's grandmother	0.281 (0.018)	0.350 (0.013)#	0.072 (0.012)*	0.093 (0.009)*
the child's sister	0.061 (0.009)	0.056 (0.007)	0.097 (0.013)	0.099 (0.011)*
the child's aunt	0.059 (0.008)	0.071 (0.007)	0.029 (0.008)	0.025 (0.006)*
other family or friends	0.168 (0.015)	0.148 (0.010)	0.138 (0.017)	0.123 (0.010)
someone who is paid	0.007 (0.002)	0.003 (0.001)	0.016 (0.006)	0.002 (0.002)

Data: NIDS 2008, 2010/11 and 2012

Notes: Data weighted using panel weights. Standard errors in parentheses.*Indicates significant difference between single and married mothers with the same employment status at the five per cent level. #Indicates significant difference between employed and non-employed mothers, within each marital category, at the five per cent level.

[a] For each child a woman can list up to eight people she is assisted with in wave one, and up to three people in waves two and three. To be consistent, I have only included the first three assistant carers listed for each child in wave one.

[b] A child's father figure is the child's biological, adoptive, foster or stepfather.

[c] A child's mother figure is the child's biological, adoptive, foster or stepmother.

4.4.2 The relationship between childcare, receiving assistance with childcare, co-residency and employment: Regression analysis

Table 4.6 shows the results for the FE logit regressions. For single and married mothers, I use two models: model one includes an explanatory variable for a mother switching to being a caregiver, whilst model two includes an explanatory variable that indicates if a mother becomes the assisted primary physical caregiver for one more child. I do not include both variables in the same model due to collinearity.

In model one, becoming a caregiver is negatively associated with finding employment, which is unsurprising in South Africa given the lack of affordable formal childcare options. However, this relationship is greater and only significant (at the five per cent level) for single mothers. This suggests the difficulties single mothers face in trying to reconcile their dual roles of primary caregiver and primary breadwinner. Related to this, and as shown in Table 4.5, single mothers who are caregivers receive significantly less help with childcare from friends and family compared to their married counterparts. The results in model two confirm that becoming the assisted primary caregiver for one more child is positively related to finding a job, but this association is larger and only significant (at the one per cent level) for married mothers.

Although the FE model identifies a negative relationship between childcare and employment, and a positive relationship between assisted childcare and employment, the presence of endogeneity (and the lack of a suitable instrument) means that it is not possible to establish the causal order in these relationships. An FE model removes time-invariant characteristics and therefore controls for selection on unobservable characteristics, but this does not address the problem of reverse causality. Thus, it is not possible to establish, for example, whether becoming a caregiver causes a mother to stop working, or whether starting to work leads to a mother not being a primary physical caregiver.

To examine the relationship between moving away from one's children and employment, I include a variable that captures a change in the co-residency status of a mother and her

children. The variable has a value of one if a mother is not co-resident with all of her children and zero if she lives with at least one child. No longer being co-resident is positively and significantly related (at the one per cent level) to finding employment for single mothers. However, the relationship is only significant in model two, which does not control for becoming a caregiver. This may indicate that having less childcare responsibilities is the key mechanism through which the positive association between being non-co-resident and being in employment works. Thus, by omitting the 'caregiver' variable, the negative relationship between childcare and employment becomes evident via the highly significant positive association between becoming non-co-resident (which is associated with significantly less childcare responsibility) and finding a job. The estimations show further that among single mothers, those who move to an urban area are significantly more likely to secure employment. The results for single mothers therefore suggest that when a single mother no longer lives with her children, it is to pursue employment, which is often associated with a move to an urban area.

Among married mothers, a change in co-residency status with own children is negatively, but not significantly associated with finding employment. Furthermore, there is no greater likelihood of married mothers finding work when moving to an urban area. As highlighted in the descriptive analysis, co-resident married mothers, on average live in households with higher income, which suggests that they have less need than single mothers to migrate in search of work.

For single mothers, an increase in a year of schooling is significantly associated (at the 10 and five per cent level in model one and two, respectively) with a move into employment. In contrast, there is no significant relationship between becoming more educated and finding work among married mothers.

The presence of other adults in a household can either have a positive or negative association with a mother's employment. Other adults may offer assistance with childcare, which could then be associated with an increase in mothers' employment. Alternatively, if other adults earn sufficiently high income, mothers may not need to work to contribute to

household resources. Table 4.6 shows that among single mothers, an increase in the number of working-aged adults (15-59 years) in the household is negatively associated with a mother finding a job. The relationship is weakly significant in model one, but loses significance in model two. This may be because the second model controls for whether a mother receives help with care – help that is likely to come from other co-resident adults.

Among married mothers, there is a significant and negative association (at the five per cent level) between an additional pensioner in their household and a mother finding work. This may indicate that access to pension income reduces the need for women to find employment. However, it is also possible that women who cannot find employment move into a household with a pensioner.

Among both single and married mothers, the relationship between an increase in the number of co-resident children and employment is negative, but not significant in either of the models. The relationship between receipt of the CSG and employment is consistently positive, but also not significant. As shown earlier, many employed mothers, as well as those who are not employed, receive this grant. Therefore, transitioning into or out of employment would not necessarily be associated with a change in CSG recipient status.

When using a FE model, it is necessary that a significant number of mothers switch their employment status over the course of the panel. In this sample, just under 40 percent of the mothers experienced changes in their employment status A comparison of mothers who change their employment status compared to those who do not is shown in Appendix A. Both single and married mothers who do not switch their status are significantly less likely than 'switchers' to be employed and less likely to receive the CSG. There is no significant difference in the likelihood of mothers being caregivers and it may be that when mothers are CSG recipients they have the means to pay for childcare assistance making it possible to search for and find employment.

Table 4.6 Fixed effects logistic analysis of employment among African mothers, by marital status

	Single				Married			
	Model 1		Model 2		Model 1		Model 2	
	Coefficient	Odds Ratio	Coefficient	Odds Ratio	Coefficient	Odds Ratio	Coefficient	Odds Ratio
N	1728		1725		1076		1068	
Age squared	-0.011 (0.039)	0.989 (0.038)	0.004 (0.041)	1.004 (0.041)	-0.045 (0.043)	0.956 (0.041)	-0.019 (0.044)	0.981 (0.043)
Years of schooling	0.187 (0.101)*	1.206 (0.121)*	0.201 (0.102)**	1.222 (0.124)**	-0.137 (0.162)	0.872 (0.141)	-0.104 (0.163)	0.901 (0.147)
Mother is caregiver	-0.471 (0.225)**	0.624 (0.141)**			-0.187 (0.268)	0.829 (0.222)		
Number of resident:								
children assisted with			0.084 (0.060)	1.087 (0.065)			0.192 (0.057)***	1.211 (0.069)***
adults aged 60+	-0.165 (0.164)	0.848 (0.139)	-0.176 (0.164)	0.839 (0.138)	-0.645 (0.311)**	0.525 (0.163)**	-0.720 (0.319)**	0.487 (0.155)**
adults aged 15-59	-0.088 (0.051)*	0.916 (0.047)*	-0.074 (0.051)	0.929 (0.048)	0.020 (0.079)	1.020 (0.080)	0.046 (0.080)	1.047 (0.084)
resident children	-0.044 (0.057)	0.957 (0.054)	-0.068 (0.057)	0.934 (0.054)	-0.047 (0.090)	0.954 (0.085)	-0.115 (0.093)	0.891 (0.083)
Mother receives CSG	0.052 (0.135)	1.054 (0.142)	0.019 (0.135)	1.019 (0.137)	0.121 (0.173)	1.129 (0.195)	0.081 (0.175)	1.084 (0.190)
Mother not co-resident	0.399 (0.307)	1.490 (0.457)	0.730 (0.273)***	2.074 (0.566)***	-0.236 (0.419)	0.790 (0.331)	-0.102 (0.395)	0.903 (0.357)
Mother in urban area	1.173 (0.456)***	3.230 (1.474)***	1.083 (0.455)**	2.953 (1.343)**	-14.523 (544.964)	0	-14.831 (621.130)	0

Data: NIDS 2008, 2010/11 and 2012

Notes: Standard errors in parentheses. ***Indicates significant difference at the one per cent level, ** Indicates significant difference at the five per cent level, *Indicates significant difference at the ten per cent level.

4.5 Conclusion

There are three distinguishing aspects of this study that have not have not been fully explored in the existing literature. First, I compared mothers by their marital status using nationally representative micro-data. I showed descriptively that in South Africa, African single mothers on average are economically worse off compared to their married counterparts. This finding persists with equivalence scale adjustments, which recognise differences in the size and composition of mothers' households. The reasons for the lower economic status of single mothers include significantly less access to labour market earnings and greater dependence on social grant income. On average, grant income makes up approximately 39 per cent of total income in the households of single mothers. This is equivalent to the share of income from the labour market. In contrast, in married mothers' households, labour market earnings comprise the largest component of household income at 55 per cent, with grant income much lower at 24 per cent.

Like single mothers internationally, a very low percentage of South African single mothers appears to receive maintenance from their children's fathers. Only eight per cent of single mothers in the pooled sample report receiving contributions from persons not living in the household. Married mothers are more likely to live in households with employed men whereas single mothers are more likely to live with employed women. Greater access to the income earned by a man is another possible reason for married mothers, on average, being better off compared to their single counterparts.

Second, I identified mothers who are primary physical caregivers of children and using regression analysis, I showed that there is a negative relationship between becoming a caregiver and finding employment, which is significant among single mothers. However, I cannot establish the causality in this relationship. I controlled for endogeneity that stems from selection on unobservable characteristics by using panel data and a FE logit model, but the lack of a suitable instrument meant that I could not control for the possibility of reverse causality.

I have also shown that in contrast to single mothers, there is a significant and positive relationship among married mothers between becoming the assisted primary physical caregiver of an additional child and becoming employed. For single mothers, however, there is no significant relationship. This may be because single mothers, who are more likely than married mothers to live apart from their children, already benefit from assistance with childcare by being able to live apart from their children (who are then cared for by someone else) so that they can find work elsewhere. Previous research has shown that income from employment makes the greatest contribution to decreasing the extent, depth and severity of poverty (Posel & Rogan 2012). For many single mothers, however, becoming employed means they have to live apart from, and forego being the primary caregiver for, their own children.

A third contribution is that I included mothers who are not co-resident with their children in the analysis. When single mothers do not live with their children they are more likely to be working, living in an urban area with fewer childcare responsibilities, and in higher income households. This is consistent with other research that explains the movement of temporary labour migrants into urban areas in pursuit of better work opportunities (Posel 2010). Studies that exclude non-co-resident mothers will therefore underestimate the employment rate and economic status of single mothers. For married mothers, there is no significant difference in their employment and economic status according to the mother's co-residency status. This suggests that something other than temporary labour migration may prompt married mothers to live apart from their children.

Many single mothers in South Africa therefore face the difficult decision of having to live away from their children in order to stay in areas with better employment opportunities so that they can find a job and potentially support their families. As highlighted by Ntshongwana (2010), not providing mothers with sufficient childcare support so that they can migrate with their children, and simultaneously work and co-reside with their children, is contrary to the African Charter of the Rights and Welfare of the Child 1999, as it deprives a child of maternal care. The same study documents the emotional difficulties experienced

by mothers separated from their children. For example, as one non-co-resident mother comments (Ntshongwana 2010; 13):

> "I feel robbed, I don't feel whole. It looked like she didn't recognize me, I know she didn't recognize me it's just hard to admit … or maybe she did recognize me but didn't show that she cared because she thought I didn't care, having left her for so long. I don't know. At least I know she didn't go hungry after I started working. I don't know..."

The lack of suitable and affordable childcare for women is well documented internationally. Whilst the South African government has focussed on ECD and its importance in the development and 'school-readiness' of a child, at a policy level, insufficient attention has been placed on how a lack of suitable and affordable childcare in South Africa severely undermines a woman's ability to find and sustain employment. In the 2018 State of the Nation Address (South African Government 2018b), the President of South Africa stressed the government's commitment to increasing employment. However, there was no acknowledgement of the importance of establishing adequate and quality childcare options that would facilitate women's access to employment[39].

Being able to support her children is important for a woman's feeling of dignity, and being able to do so via earned income can help avoid the social stigma associated with being a grant recipient (Wright et al. 2014). Greater help with childcare, for example, an increase in the quantity (and quality) of ECD centres, as well as greater fee subsidisation will help overcome the problems faced by many mothers who cannot afford formal childcare and therefore have to either forego working or rely on informal care networks (Wiltshire 2016). More importantly, such assistance is likely to make it easier for many mothers, particularly those who are single to co-reside with, care for and provide for their children.

[39] In the address the President states that there are (South African Government 2018b), "nearly a million children in early childhood development facilities" but given that Statistics South Africa estimates that there were just under six million children aged four or under in South Africa in 2017, this at best caters for approximately 17 percent of children (Statistics South Africa 2017).

Appendix A: A comparison of mothers by their marital and employment 'switching' status

	Single		**Married**	
	Variation in Employment	No variation	Variation in Employment	No variation
Age	32.690 (0.264)	31.459 (0.200)*	37.207 (0.309)	36.960 (0.249)
Years of schooling	9.846 (0.091)	10.053 (0.076)	9.001 (0.136)	9.161 (0.128)
Mother is caregiver	0.835 (0.014)	0.840 (0.011)	0.875 (0.014)	0.876 (0.011)
Number of resident children assisted with	0.726 (0.032)	0.691 (0.025)	1.070 (0.048)	1.054 (0.037)
Number of resident adults aged 60+	0.325 (0.019)	0.304 (0.014)	0.114 (0.014)	0.117 (0.010)
Number of resident adults aged 15-59	3.471 (0.079)	3.298 (0.062)	2.907 (0.058)	2.931 (0.043)
Number of resident resident children	2.637 (0.064)	2.617 (0.051)	2.245 (0.061)	2.099 (0.043)
Mother receives CSG	0.745 (0.015)	0.686 (0.013)*	0.617 (0.020)	0.504 (0.017)*
Mother is employed	0.475 (0.017)	0.352 (0.014)*	0.466 (0.021)	0.352 (0.017)*
Mother not co-resident	0.134 (0.013)	0.127 (0.010)	0.065 (0.011)	0.074 (0.009)
Mother in urban area	0.530 (0.017)	0.519 (0.014)	0.519 (0.021)	0.566 (0.016)

Data: NIDS 2008, 2010/11, 2012

Notes: Data weighted using panel weights. Standard errors in parentheses. * Indicates significant difference between mothers who switch employment status and mothers who do not switch employment status, within each marital category, at the five per cent level.

Chapter Five
Conclusion

The future of all societies rests on the social reproduction of the children of today. In this thesis, I used quantitative data and methods to investigate the care of children in South Africa. I first explored the provision of both physical and financial childcare and then examined the implications of caregiving responsibilities for the SWB of women, and for the economic and employment status of mothers.

The three empirical studies in the thesis analysed data collected in NIDS, which has many advantages for empirical research on childcare and motherhood. The survey includes a dedicated child module, with detailed questions on the care provided to children; it adopts a broad definition of household membership, making it possible to distinguish among parents who do not live with their children; and it includes a birth module so that all biological mothers can be identified. The panel nature of the data also permits the use of estimation techniques that offer some control for problems of endogeneity that arise when estimating the relationship between caregiving responsibilities and outcomes (SWB and the likelihood of employment).

With the NIDS data, my analysis of childcare could go beyond the insights provided by time use data, by exploring how caregivers are related to the children they care for; whether caregivers are the primary and sole providers of care; and the provision of financial care to children. In Chapter Two I showed that most primary physical caregivers of children, and payers of educational expenses of children in South Africa, are women. When children live with their mother, she is almost always their primary physical caregiver. The distinctive patterns in household formation among Africans mean that significantly fewer African children co-reside with, and are therefore cared for by, their mother. African children who do not receive primary care from their mother are more likely to be cared for by their grandmother or another woman, than by their father. Many African fathers also do not appear to balance their low level of involvement in the primary physical care of their children with assuming greater responsibility for children's financial care. The majority of African children's schooling expenses are paid for (in full or in part) by their mother; mothers of African children are almost three times more likely to pay for their child's

education compared to fathers. In contrast, mothers and fathers of non-African children are almost equally likely to be payers. However, the involvement of mothers of non-African children in childcare still far outweighs that of fathers.

It is important to remember that small sample sizes prevent the disaggregation of non-Africans into coloured, Indian and white, and this does not suggest that the three population groups are homogenous. However, an advantage of comparing African to non-African is that I can highlight the links between distinctive patterns of household formation among Africans and their particular childcare arrangements.

The analysis of the NIDS data also provides key insights into the vital role played by grandmothers in the physical and financial care of African children. For many African children, their grandmother is their primary physical caregiver, but more importantly, when grandmothers are in this role, they are more likely than other caregivers to receive no assistance with care. Furthermore, many African children have their schooling expenses paid for solely by their grandmother.

Of course, it is possible that fathers (and mothers) who do not live with their children contribute to other non-schooling expenses associated with childcare, and although they do not provide daily physical care, they may still contact and see their children. In recent years, several studies have investigated the contribution that fathers make to the care of their children, particularly those that are not co-resident in the child's household. These studies, which are often based on qualitative research or regionally specific micro-data, challenge the assumption that fathers who do not live with their children are not involved in their children's lives, and highlight the need for greater recognition of fathers' involvement in childcare (cf. Madhavan et al. 2016; Clark et al. 2015).

An important advantage of the NIDS data is that I could distinguish among fathers (and mothers) according to whether they are viewed as non-resident household members or as absent from the child's household altogether. There are significant differences in the involvement of fathers among these two groups, with the majority of fathers who are non-resident household members

seeing their children and contributing financially towards their upkeep. Moreover, non-resident fathers are more likely than non-resident mothers (although not significantly) to provide support.

However, a far greater share of children has fathers who are classified as absent from the household and the contribution of absent (living) fathers, compared to those who are non-resident household members, is considerably smaller. Among African children, there are also clear differences in contact and support from absent mothers and absent fathers: absent mothers are significantly more likely than absent fathers to see their children regularly and to provide financial support.

In the remainder of the thesis, I explored the implications of women's responsibility for childcare on their SWB (Chapter Three) and their economic status (Chapter Four). Examining the association between children and a woman's SWB is a complex issue in South Africa in light of different cultural contexts and childrearing patterns. The common practice among African women of sharing the childrearing burden amongst each other, and in many cases taking on the primary care of other people's children has implications for SWB which have not been fully examined in the literature to date. In Chapter Three I showed that overall childcare is a far more positive experience among African women than among non-African women. Furthermore, African women place more value on caring for their own children compared to other people's children. They report higher SWB if they receive assistance with the physical care of their own, compared to other children. There is a similar positive association between SWB and paying for schooling when a child is biological or somebody else's. Insofar as a negative relationship exists between children and an African woman's SWB, this is most evident in the sole physical care of other people's children.

In contrast, non-African women report lower levels of average SWB if they provide sole and assisted physical childcare, as well as pay for children's schooling. There is also little difference between caring for biological children and other people's children. The results for non-African women align far more with the findings of international studies, as they suggest that the burden of childcare underlies the negative association between having co-resident younger children and SWB. The different, more positive outcome among African women suggests that the cultural and

socio-economic context influence women's experiences of motherhood and childcare. Future qualitative research that describes in detail the assistance that women receive with childcare, and how much they believe their current support system helps them, will provide useful insights into what type of assistance helps women the most.

Most mothers of African children provide physical and/or financial care to their children. In Chapter Four I explored how married and single mothers reconcile the competing roles of primary physical caregiver and breadwinner. Single mothers, who would not receive assistance with childcare from a co-resident partner, would be expected to face greater challenges in participating in the labour market, and as primary breadwinners, to also have more need of employment. By examining both mothers who are co-resident with their children and those who are not, I overcame a limitation of previous studies that were not able to identify mothers who do not live with their children.

I showed that among single mothers, there is a significant and negative relationship between being a primary physical caregiver and being in employment. Single mothers who no longer reside with their children are more successful in finding work than those who remain co-resident. By moving to urban centres and entrusting the physical care of their children to others (in many cases family members in their household of origin), single mothers are significantly more likely to move into employment. Whilst part of the reason for finding a job may be greater work opportunities in that area, reduced physical childcare responsibilities also appear to play an important role.

Married mothers who are primary physical caregivers are significantly more likely to receive assistance with childcare than single mothers. Among married mothers who provide physical childcare, the most common assistant caregiver is the child's father (or father figure). Unlike single mothers, there is no significant relationship between being a primary physical caregiver and working among married mothers. Furthermore, the likelihood of employment among married women is not influenced by whether they live apart from their children. This suggests that to be able to participate in the labour market, married women do not need to move away from their children, at least partly because of the father's contribution to childcare. Indeed, there

is a significant positive relationship between a married mother being the assisted primary caregiver for one more child and her finding work (there is no significant relationship among single mothers).

A comparison of the economic status of single and married mothers showed that the latter, on average, have significantly more access to resources. This would be expected given that married women are more likely to be living with employed men. An interesting result, however, is that single mothers who *live apart* from their children, do not differ significantly from married mothers in terms of average household income per adult equivalent (adjusted for economies of scale). This suggests that for many single mothers, finding employment and providing financial support for children often requires that they move away from their children.

A limitation of this thesis is that without a suitable instrumental variable for childcare, I was not able to control for problems of reverse causality that arise when estimating the relationship between childcare provision and employment (or SWB). Thus, I could not determine, for example, whether looking after children resulted in a woman not working, or whether not working led to a woman taking on the responsibility of childcare. Nonetheless, evidence of a negative relationship between childcare and employment reveals the tension for women, between providing physical care to their children and also providing for their financial care.

A further limitation of this thesis is that it is not possible in NIDS to identify the payers for other direct costs of childcare. Future rounds of NIDS could include more questions on the financial care of children, to permit a more comprehensive analysis of who takes financial responsibility for children, and whether and how this is shared among women and men.

The findings in Chapter Three and Chapter Four provide important information to policymakers in their formulation of policies to improve welfare, alleviate poverty and increase employment. These are either expressly stated or implied as objectives for women within the National Development Plan (National Development Plan 2012). But it is difficult, if not impossible, to achieve any of these goals without addressing the provision of affordable childcare.

These policies would need to include measures that make it easier for women to combine childcare responsibilities with labour force participation, such as the provision of crèches near or at a woman's place of work, as well as parental leave that allows mothers and fathers to tend to childcare emergencies or other child-related responsibilities (for example, school meetings). They would also need to include measures designed to increase fathers' contributions to the care of their children. Perhaps the most important of these are maintenance laws, which are very poorly observed and enforced in South Africa (Goldblatt 2005; Bonthuys 2008a, 2008b; Carnelley 2012; De Jong & Sephai 2014).

The thesis contributes to understanding the extent of women's involvement in childcare in South Africa and how being a caregiver is associated with important aspects of her well-being. It also highlights several obstacles that need to be overcome to improve the welfare of women in South Africa as well as the children they care for. Despite much research pointing to the strains of children and childcare, there is also evidence of how children bring fulfilment to their mothers and caregivers. By reducing the many difficulties women face in childrearing, policymakers can improve the lives of mothers and caregivers, as well as the children they look after.

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