

Orphanhood and Teenage Childbearing in South Africa: Findings from the 2011 Census.

Johan Sibiyi*

Statistics South Africa, Pretoria, South Africa -- johansi@statssa.go.za

Abstract

South Africa has one of the highest prevalence of HIV/AIDS in the world and as a result tens of thousands of young people experience parental bereavement. A parental death has a profound impact on children and young adults, leading to researchers to emphasize on the adverse outcomes of orphanhood. Despite considerable declines in fertility rates in South Africa, teenage childbearing remains considerably high and a serious social issue and a source of concern. Using the most recent Census data this study examines the association between orphanhood and teenage childbearing. Unadjusted and adjusted odds ratios (AOR) are obtained to measure the risk of childbearing among non-orphans and the different types of orphans. The results show that all types of orphaned teenage girls (maternal AOR=1.14; paternal AOR=1.27; double-orphan AOR=1.21) were more likely to give birth compared to their non-orphaned counterparts and orphanhood was statistically significant at $P \leq 0.05$. However, multiple factors contributing to teenage childbearing in addition to orphanhood have been identified, these include: population group, marital status, school attendance and type of place of residence. Therefore, a multi-faceted sex and reproductive approach is needed at a very young age to address and thus reduce teenage childbearing in South Africa.

Keywords: non-orphan, maternal orphan, paternal orphan, double-orphan

1. Introduction

This paper examines the association between orphanhood and teenage childbearing in South Africa using the 2011 Census data. South Africa has one of the highest prevalence of HIV/AIDS in the world with 6, 3 million adults living with HIV, and with between 360 000 and 390 000 AIDS related deaths recorded in 2013 (UNAIDS) as a results, tens of thousands of young people experience parental bereavement. A parental death has a profound impact on children and young adults, leading to researchers to emphasize on the adverse outcomes of orphanhood. There is a growing concern about the reproductive health of adolescents and youth (Kidman & Anglewicz, 2014).

Despite considerable declines in fertility rates in South Africa, teenage childbearing remains high and stable. The United Nations Population Division estimates that the adolescent birth rate in South Africa declined from 90.8 per 1000 women aged 15-19 years between 1990 and 1995 to 59.2 between 2005 and 2010. Nonetheless, teenage childbearing remains a serious social issue and a source of concern in South Africa. Survey data suggests that more than two thirds of teenage births are untimed or unplanned and unwanted in the country (Panday et al., 2009).

2. Statement of problem

During the adolescence period, adolescents despite their orphanhood status experience important life events such as sexual debut, marriage and childbearing (Chae, 2011). A number of studies suggest that such events are not always under the control of the adolescents and may lead to increased risk of low educational attainment, HIV/STD infections; early childbearing and other adverse reproductive health issues (Drain et al. 2004, Clark 2004, Pettifor et al. 2004, Nour 2006, Cooper et al. 2007). Furthermore, the bereavement of a parent makes them even more vulnerable and susceptible to adverse outcomes. However, "Many organisations claim that orphanhood is a potential risk factor, particularly for risky sexual behaviour resulting from girls' lack of guidance or economic security; nevertheless, empirical analyses documenting this link are few and inconclusive" (Parlemo, T & Peterman, A. 2009; 101). It is therefore unclear whether these relationships are as a result of characteristics unique to orphans or underlying determinants, such as poverty and lack of education, shared by many disadvantaged adolescent girls in the developing world.

Research question

- Is orphanhood a risk factor for teenage childbearing in South Africa?

General objective

- To examine the association between orphanhood status and childbearing among teenage girls in South Africa.

Specific objectives

- To estimate the prevalence of orphanhood and childbearing among teenage girls in South Africa.
- To measure childbearing rate differentials by teenage orphanhood status and other selected demographic and socio-economic factors in South Africa.
- To examine the relationship between orphanhood and childbearing among teenage girls in South Africa.

3. Justification

Approximately 30% of South African teenage girls report ever having been pregnant, most of which were unplanned (Jewkes, Morrell and Christofides, 2009). While teenage pregnancy and child bearing has decreased in the past few decades, it is still unacceptably high (Willian, 2013). With regards to childbearing, neither the exact nature of the orphan disadvantage nor the specific mechanisms that explain the disadvantages are well understood (Kidman & Anglewicz, 2014). Thus, before even addressing the issue of teenage childbearing it is imperative to understand and establish the factors influencing it. Therefore, this study, examines whether orphanhood is a risk factor for childbearing in South Africa at present.

4. Methods

This study is a quantitative cross-sectional secondary data analysis. The population of interest is teenage girls who were aged between 13 and 19 years at the time of the Census. This age group is chosen because menarche is the milestone of female pubertal development and, despite international variations, usually occurs between the age of 12 and 13 years in well-nourished populations (Sultan, C. 2012). The data shows that 2 277 556 girls were aged between 13 and 19 years in 2011 in South Africa and were eligible for this study.

5. Limitations

A major limitation of this study is that temporality between orphanhood and childbearing is difficult to establish due to the cross-sectional nature of the data. Establishing the sequence of events between the two is difficult. Thus, it is probable that in some cases a teenage birth actually occurred before the death of a parent(s). Although this may bias the results, it will not create correlation: while a parental death may influence childbearing, it is unlikely that childbearing contribute to parental death (Kidman & Anglewicz, 2014).

6. Data management and measurement of variables

Dependent variable: whether a teenage girl has never given birth or has given birth.

Main independent variable:

Orphanhood status

- Non-orphan: refers to a teenage girl whose (both) biological parents are still alive.
- Maternal orphan: refers to a teenage girl whose biological mother is no longer alive.
- Paternal orphan: refers to a teenage girl whose biological father is no longer alive.
- Double-orphan: refers to a teenage girl whose (both) biological parents are no longer alive.

Other independent variables:

- Population group; Marital status; Province; School attendance; Type of place of residence; Migration; Income; Age at first birth; Total children ever born.

7. Data analysis

To meet the objectives of the study, analysis was conducted at three levels: bivariate descriptive, bivariate analytical and multivariate analysis. Firstly, bivariate descriptive analysis was used to estimate the prevalence of orphanhood and childbearing among teenage girls. Secondly, bivariate analytical statistics were used to obtain unadjusted odds ratios (UOR) to measure the association between orphanhood and teenage child-bearing and to measure the association between teenage childbearing and other socio-economic and demographic factors. The multivariate logistic regression model was fitted to obtain the adjusted odds ratios (AOR) to identify factors associated with teenage childbearing. The logistic regression model was used because of the dichotomous nature of the outcome variable (has given birth and has never given birth). The model gives the magnitude as well as the direction of the association between the explanatory and outcome variables.

8. Results

8.1 Bivariate descriptive analysis

In line with the first objective of the study, Table 1 shows teenage girls' child-bearing status by orphanhood status. Table 2, on the other hand presents frequencies and percentages of teenage girls by child-bearing status according to their background characteristics.

Table 1: Teenage girls (13-19 years) by childbearing status in South Africa, Census 2011. (Column %)

Orphanhood status	Has never given birth (%)	Has given birth (%)	Total (%)
Non-orphan	1 262 080 (65.2)	186 624 (54.7)	1 448 769 (63.6)
Maternal	127 493 (6.6)	27 291 (8)	154 791 (6.8)
Paternal	381 592 (19.7)	86 890 (25.5)	468 501 (20.6)
Double-orphan	164 965 (8.5)	40 522 (11.9)	205 495 (9)
Total	1 936 129 (100)	341 327 (100)	2 277 556 (100)

Notes: columns (%) add up to 100.

Results on Table 1 shows that 2 277 556 girls aged 13-19 years in 2011 had indicated their childbearing and orphanhood status. 1 448 769 (63.6%) of the girls were non-orphans, 154 791 (6.8%) were maternal orphans, while a fifth of them (468 501: 20.6%) were paternal orphans and 205 495 (9%) were double-orphans.

Furthermore, Table 1 indicates that more than a third (34.8%: 6.6%=maternal, 19.7%=paternal, 8.5%=double-orphans) of the 1 936 129 teenage girls in the country who had never given birth were orphans. On the other hand, the results show that a total of 341 327 teenage girls had ever given birth, more than half of these girls (54.7%) were non-orphans, while maternal orphans accounted for eight per cent of the total teenage births in the country; paternal and double orphans accounted for 25.5% and 11.9% respectively for all the teenage births.

Table 2: Profile of selected demographic and socio-economic characteristics of teenage girls (13-19 years) by childbearing status, South Africa, Census 2011.

Characteristics	Has never given birth (%)	Has given birth (%)
Orphanhood status		
Non-orphan	1 262 080 (87.1)	186 624 (12.9)
Maternal	127 493 (82.47)	27 291 (17.6)
Paternal	381 592 (81.5)	86 890 (18.5)
Double-orphan	164 965 (80.3)	40 522 (19.7)
Total	1 936 129 (85)	341 327 (15)
Population group		
Black	1 693 196 (84.3)	314 262 (15.7)
Coloured	158 032 (84.2)	29 581 (15.8)
Indian or Asian	36 243 (94.3)	2 188 (5.7)
White	104 664 (95)	5 484 (5)
Total	1 992 136 (85)	351 515 (15)
Marital status		
Never married	1 915 816 (86.8)	290 199 (13.2)
Ever married	76 319 (55.5)	61 316 (44.5)
Total	1 992 136 (85)	351 515 (15)
Province		
Western Cape	168 358 (84.9)	29 938 (15.1)
Eastern Cape	296 272 (84.2)	55 783 (15.8)
Northern Cape	44 588 (84.3)	8 331 (15.7)
Free State	112 514 (86.7)	17 220 (13.3)
Kwa-Zulu Natal	440 553 (84.2)	82 483 (15.8)
North West	131 324 (85)	23 203 (15)
Gauteng	340 663 (86.1)	54 783 (13.9)
Mpumalanga	176 014 (83)	36 037 (17)
Limpopo	281 850 (86.6)	43 738 (13.4)
Total	1 992 136 (85)	351 515 (15)
School attendance		
Attending	1 727 876 (92)	149 231 (8)
Not attending	245 636 (56.2)	191 612 (43.8)
Total	1 973 512 (85.3)	340 843 (14.7)
Type of place of residence		
Urban	1 043 402 (85.9)	171 088 (14.1)
Traditional	874 371 (84.6)	158 601 (15.4)
Farm	74 363 (77.3)	21 826 (22.7)
Total	1 992 136 (85)	351 515 (15)
Migration		
Not migrated	1 770 605 (85.2)	308 390 (14.8)
Migrated	201 889 (83.8)	39 019 (16.2)
Total	1 972 494 (85)	347 408 (15)
Employment status		
Employed	62 670 (70.3)	26 511 (29.7)
Not employed	131 000 (67.6)	62 738 (32.4)
Total	193 670 (68.5)	89 249 (31.5)
Income		
No income	1 181 612 (81.7)	263 946 (18.3)
R1-R4 800	545 410 (94)	34 866 (6)
R4 801-R19 200	94 608 (82.9)	19 551 (17.1)
R19 201+	25 821 (72.9)	9 613 (27.1)
Total	1 847 451 (85)	327 976 (15)

Notes: rows (%) add up to 100.

Table 2 indicates that 15% of all teenage girls in the country, irrespective of their orphanhood status had ever given birth. Furthermore, we observe that teenage childbearing increases by type of orphanhood. Non-orphaned girls show the lowest proportion of those who had ever given birth

(12.9%), followed by maternal orphans (17.6%), paternal orphans (18.5%), and then double orphans (19.7%).

Furthermore, Table 2 indicates that among the population groups Coloureds and Black Africans had the highest proportion of teenage girls who had ever given birth at 15.8% and 15.7% respectively, whilst the Indian/Asian and White teenage girls indicated the lowest proportions at 5.7% and 5% respectively. When looking at teenage child-bearing within the provinces, Table 2 indicates that Mpumalanga had the highest proportion at 17%; whilst the rest of the provinces ranged between 13% and 16%, with the lowest observed in the Free State at 13.3%.

The proportion of teenage girls who had ever given birth and were not attending school (43.8%) was more than five times the proportion of those who had given birth but were attending school (8%). That is, girls who had given birth were more likely to leave school than those who had never given birth. Among the different types of place of residence, the highest proportion of girls who had given birth was in the farms (22.7%), while in the urban and traditional areas they were 14.1% and 15.4% respectively. Table 2 further shows that the proportion of teenage girls who had ever given birth did not differ by their migration status; whether they had moved or remained in their province of birth.

8.2 Bivariate analytical analysis

The second objective of the study was to examine the association between orphanhood status and childbearing status among teenage girls in the country. To accomplish this, a logistic regression was done for each independent variable (orphanhood status, population group, marital status, province, school attendance, type of place of residence, migration, employment status, and income) against the dependent variable (childbearing status).

Table 4: Odds of giving birth among teenage girls aged 13-19 years, South Africa, Census 2011.

Characteristics	Unadjusted odds Ratio	[95% Confidence interval]
Orphanhood status*		
Non-orphan	1.00	
Maternal	1.44*	1.376-1.512
Paternal	1.54*	1.491-1.583
Double-orphan	1.65*	1.587-1.720
Population group*		
Black	1.00	
Coloured	0.99	0.946-1.036
Indian or Asian	0.32*	0.276-0.373
White	0.28*	0.255-0.310
Marital status*		
Never married	1.00	
Ever married	5.27*	5.073-0.480
Province*		
Western Cape	1.00	
Eastern Cape	1.07*	1.013-1.125
Northern Cape	1.07	0.977-1.169
Free State	0.88*	0.820-0.940
Kwa-Zulu Natal	1.07*	1.019-1.125
North West	0.98	0.923-0.049
Gauteng	0.94*	0.888-0.986
Mpumalanga	1.18*	1.111-1.247
Limpopo	0.89*	0.842-0.939
School attendance*		
Attending	1.00	
Not attending	9.00*	8.763-9.249
Type of place of residence*		
Urban	1.00	
Traditional	1.10*	1.068-1.122

Farm	1.69*	1.593-1.801
Migration*		
Not migrated	1.00	
Migrated	1.12*	1.079-1.166
Employment status*		
Employed	1.00	
Not employed	1.15*	1.085-1.221
Income*		
No income	1.00	
R1-R4 800	0.28*	0.272-0.295
R4 801-R19 200	0.88*	0.833-0.930
R19 201+	1.67*	1.539-1.809

*=overall variable significant at $P<0.05$

*=category significant at $P<0.05$

Notes: (R) denotes reference category for each variable.

There was a statistical significant association between orphanhood status and childbearing among teenage girls. The results show that the odds of giving birth among teenage girls were higher for orphans than non-orphans and increases by type of orphanhood (maternal: UOR=1.44, paternal: UOR=1.54, double-orphans: UOR=1.65). Compared to Black African teenage girls, coloured, Asian or Indian and White girls were less likely to have ever given birth to a child. Furthermore, girls who reported ever being married were five times (UOR=5.27) more likely to have had given birth as compared to girls who had never been married.

Table 4 further shows that girls from Eastern Cape (UOR=1.07), Northern Cape (UOR=1.07), KZN (UOR=1.07) and Mpumalanga (UOR=1.18) were more likely to have given birth compared to girls from the Western Cape; contrary girls from the Free State (UOR=0.88), North West (UOR=0.98), Gauteng (UOR=0.94) and Limpopo (UOR=0.89) were less likely to have given birth compared to girls from the Western Cape. School attendance was significantly associated with teenage childbearing. Girls who were not attending school (UOR=9.00) were nine time more likely to have given birth than those who were attending school. Type of place of residence, migration, employment status and income showed minimal statistical significance in relation to childbearing among teenage girls.

8.3 Multivariate analysis

The adjusted odds ratios reported on Table 5 implies that the results given of the impact of particular variables on teenage childbearing has taken in to consideration the other variables in the model that could also have an impact on the outcome. As such the results indicates that non-orphans were protected from childbearing (maternal: AOR=1.14; paternal: AOR=1.27; double-orphan: AOR=1.21) when compared to orphans and their association was statistically significant at $P\leq 0.05$. Furthermore, Table 5 shows that the Indian/Asian (AOR=0.24) and White (AOR=0.30) were less likely to give birth than their Black African and Coloured (AOR=0.96) counterparts. Girls who reported ever being married were substantially more likely to have given birth (AOR=2.75) as compared to those who had never been married.

Girls in the eight provinces, compared to those in the Western Cape were either more likely or had similar odds of giving birth, controlling for other factors. There was no statistical significance association between Province and childbearing, however. Teenage girls who were not attending school (AOR=4.47) were substantially more likely give birth than those who were attending school. School attendance was statistically associated with teenage childbearing as shown in Table 5.

Table 5: Odds of giving birth among teenage girls aged 13-19 years, South Africa, Census 2011.

Characteristics	Adjusted odds Ratio	[95% Confidence interval]
Orphanhood status*		
Non-orphan	1.00	
Maternal	1.14*	1.009-1.285
Paternal	1.27*	1.171-1.368
Double-orphan	1.21*	1.089-1.345
Population group*		
Black	1.00	
Coloured	0.96	0.847-1.097
Indian or Asian	0.24*	0.176-0.335
White	0.30*	0.247-0.363
Marital status*		
Never married	1.00	
Ever married	2.75*	2.518-3.010
Province		
Western Cape	1.00	
Eastern Cape	1.19*	1.026-1.381
Northern Cape	1.18	0.954-1.468
Free State	1.18	0.989-1.412
Kwa-Zulu Natal	1.28*	1.110-1.479
North West	1.02	0.851-1.216
Gauteng	1.06	0.928-1.213
Mpumalanga	1.15	0.972-1.358
Limpopo	1.13	0.950-1.340
School attendance*		
Attending	1.00	
Not attending	4.47*	4.146-4.826
Type of place of residence*		
Urban	1.00	
Traditional	1.37*	1.251-1.493
Farm	1.23*	1.058-1.432
Migration		
Not migrated	1.00	
Migrated	1.05	0.955-1.155
Employment status*		
Employed	1.00	
Not employed	1.15*	1.049-1.256
Income		
No income	1.00	
R1-R4 800	0.80*	0.713-0.901
R4 801-R19 200	1.13	0.997-1.274
R19 201+	1.09	0.942-1.256

*=overall variable significant at $P<0.05$

*=category significant at $P<0.05$

Notes: (R) denotes reference category for each variable.

Girls from traditional and farm areas were more likely to give birth than girls from urban area. Furthermore, whether a girl had migrated or not from their province of birth had little or no effect on their childbearing status. That is, girls who remained in their province of birth had similar odds of having given birth as those who had relocated to a different province at some point. Employment and income had a minimal effect on teenage childbearing status.

9. Discussion

According to the 2011 Census, 36.4% of South African girls aged 13-19 years had lost either a parent or both (Table 1). Moreover, 15% of girls aged 13-19 years had given birth before their 20th birthday; more than a third of these teenage mothers were orphans. Substantial differentials existed in 2011

between demographic and socio-economic groups among teenage girls in both the incidences of orphanhood and childbearing.

White and Indian/Asian teenage girls were much less likely to have given birth and to have lost a parent compared to Black African and Coloured girls. Moreover, girls living in urban areas were relatively less likely to have given birth as teenagers than those in traditional and farming communities. Furthermore, the findings indicate that lack of employment and job opportunities in this age group was associated with teenage childbearing; however, the majority in this age group are of school going age.

However, according to the 2011 Census 18.9% of teenage girls were not attending any type of educational institutions and 43.8% of those had given birth. Furthermore, school non-attendance had a substantial effect on teenage childbearing. Table 5 indicates that girls who were not attending school were more than four times more likely to have given birth compared to girls who were attending school. However, temporality becomes an issue, it cannot be established which preceded the other as a result of the cross-sectional nature of the data. Nevertheless, teenage mothers are more likely to drop out if they are their child's primary caregiver (Timæus & Moultrie. 2014). That is, the most far-reaching consequence of teenage childbearing is that it interrupts, and often terminates girls' schooling. This occurs even though South Africa champions some of the most progressive policies that encourage pregnant girls to remain in school and young mothers to return to school after giving birth. However, implementation varies between provinces and from school to school (Timæus & Moultrie. 2014).

More than two out of every five (45.3%) teenage mothers were orphans. Paternal orphans contributed the highest proportion (25.5%). Furthermore, one out of every ten non-orphan teenage girls had given birth, whilst one out of five orphan (all types) teenage girls had given birth. Thus, teenage childbearing is highly associated with orphanhood.

10. Conclusion

Orphanhood was found to be a risk factor for childbearing among teenage girls. Multiple factors contributing to teenage childbearing in addition to orphanhood have been identified, these include: population group, marital status, school attendance, type of place of residence and employment status of teenage girls. School non-attendance is a consequence rather than a cause of teenage childbearing. Teenage mothers in most cases are left with no choice but to leave school to take care of their newborns. Therefore, sex and reproductive health education programmes need to be expanded to target girls at a very young age.

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