Assessing the correlates of non-utilisation of healthcare services among adolescents in South Africa: Does family structure matter?

Khuthala Mabetha[1], Nicole De Wet[1], Clifford Odimegwu[1]

[1]Demography and Population Studies, Schools of Social Sciences and Public Health, University of the Witwatersrand, Johannesburg, South Africa

Extended Abstract

Healthcare utilisation is a term that is largely used to refer to the actual use of healthcare services (Andersen, 1995). It also includes the capacity to approach and obtain medical services (Riegle & Stewart, 2013). General access to healthcare services, particularly among adolescents, has been globally deemed to be significant as adolescents face a number of health challenges such as increased exposure to HIV/AIDS, other STIs, mental health issues and are also increasingly becoming affected by non-communicable diseases (Juszczak et al.,2003; Muyibi et al., 2010). Although there have been some improvements in the general access to healthcare services among South African citizens as well as concerted efforts that focus on improving maternal health as well as child health and survival, general access to healthcare services appears to have remained significantly low among adolescents (Shisana et al., 2010). For instance, a study conducted by Statistics South Africa in 2013, found that 33.4% of 15-19 year old adolescents did not consult a health worker when they fell ill, prior to the survey being conducted (Lehohla, 2015). Adolescents' access to routine care that also involves the prevention of illnesses and diseases is an important factor that hinders the development of health problems and presents consequences that contribute to longer-term challenges that may inflict further repercussions on the household.

Adolescents are often dependent on their parents and other caregivers to provide them with emotional, material and psychological support as they transition to adulthood. However, family structure has been found to potentially influence the ability to meet these basic needs which may consequently have a significant effect on the adolescents' development, health and wellbeing (Heck & Parker, 2002). The impact of family structure on the health and wellbeing of adolescents has been studied extensively in a number of developed and developing countries. Previous studies that examined the effect of family structure on adolescent health found strong associations between family structure and several domains of adolescent wellbeing such as physical health, behavioural disorders, educational and psychological wellbeing (Bramlett & Blumberg, 2007; Liu & Heiland, 2007; Blackwell, 2010; Langton & Burger, 2011).

With these outcomes being known, several limitations are evident in the extensive literature and what has remained largely neglected in literature and merits further research is the effect of family structure on adolescent healthcare utilisation. Given that general access to healthcare services appears to be significantly low among adolescents, it is vital to gain insight on whether family structure plays a role in shaping adolescents' access to healthcare services. This is due to the reason that the acquisition of knowledge on this relationship is imperative in gaining an understanding of how adolescent health outcomes are influenced by various social structures and do not exist in isolation, as they transition through their life courses. Secondly, living arrangements can have a significant implication on the health choices and health-seeking behaviour of an adolescent. Thus, the findings of this study may be useful as monitoring the healthcare needs of adolescents within different family structures, will help determine how the heterogeneity of families influences the health-seeking behaviours of adolescents and impacts on their wellbeing.

Methods

Data source

This study utilised secondary data obtained from the 2017 General Household Survey (GHS). The General Household Survey is a nationally representative survey that has been conducted by Statistics South Africa since 2002 and it focuses on core themes such as housing, education, health and social development, access of households to basic services and other amenities as well as food security.

Study population

Adolescents aged 10-19 years who did not consult a health worker in the past three months preceding the survey, as a result of illness. The overall weighted sample of adolescents obtained from the survey was 9,685,683. However, for the purposes of this study, the sample was reduced to 662,984 adolescents who had complete information on all the characteristics that formed the inclusion criteria.

Dependent variable

The dependent variable in the study was healthcare utilisation. The variable was measured by asking the question "Did you consult a health worker such as a nurse, doctor or traditional healer as a result of illness during the past three months?" Based on the fact that our interest was non-utilisation of healthcare services, the dependent variable was treated as a dichotomous variable and the response categories for this variable were coded as (0) for yes and (1) for no. Thus, the population of interest were adolescents who reported not to have utilised healthcare services during the past 3 months (denoted by 1).

Independent variables

The main independent variable in this study was "Family structure". Family structure was operationalised using "relationship to the head of the household". Family structure was determined by asking respondents the following question: "What is your relationship to the head of the household?" although it is highly acknowledged that the two terms vary in terms of the context in which they are utilised as well as their meaning. The responses were recoded as follows: "Head/acting head" was classified as being solitary which suggested that the adolescent is the head of household. Adolescents who reported themselves to be sons, daughters, stepchildren, adopted children, brothers, sisters, stepbrothers and stepsisters were classified as children who reside in a nuclear family structure and both these categories were combined to create a "nuclear family structure". Adolescents who reported to be grandchildren, great grandchildren or other relatives were categorised into one group and classified as children who reside in an extended family structure. Lastly, adolescents who reported to be non-related persons were reported to be raised by non-related adults. The categories were coded as follows: (1) Nuclear, (2) Solitary (3) Extended (4) Non-related.

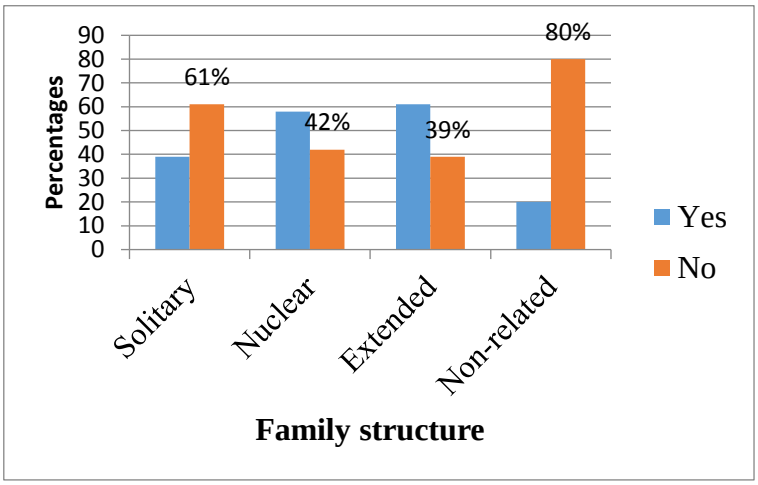
The control variables in this study were: respondent's current age (10-14 years or 15-19 years), level of education (primary or secondary), sex of respondent (male or female), place of residence (urban or rural), population group (Black African or Other) and covered by medical aid/ medical benefit scheme/ private health insurance (Yes or no). Population group was categorised as "Black African and Other" due to the fact that the sample was comprised of majority of Black Africans (81.37%) and a smaller percentage of Coloured (8.28%), Indian/ Asian (1.39%) and White (8.96%) population groups. These population groups were thus combined and categorised as "Other" in order to increase the sample size.

Statistical analysis

The analysis of data was conducted in three stages. In stage 1, a descriptive analysis was conducted by assessing the levels of healthcare utilisation, the percentage distribution of the living arrangements of the adolescents as well as the percentage distribution of utilisation of healthcare services by family structure of adolescents in South Africa. In the second stage, a chi-square test of association was employed in order to test for the association between the adolescents' background characteristics and utilisation of healthcare services. Lastly, a multivariate binary logistic regression model was employed in order to examine the association between family structure and non-utilisation of healthcare services, while controlling for the effect of other covariates. The binary logistic regression model was employed as it models a dichotomous dependent variable, which in this study was represented by either "yes" or "no".

Selected Results

***Fig 1*: Percentage distribution of utilisation of healthcare services by family structure of adolescents aged 10-19 years in South Africa, GHS 2017.**



Majority (80%) of adolescents who are raised by non-related adults did not consult a health worker in the past three months preceding the survey, followed by 61% of adolescents who reside in child-headed households. Astonishingly, the lowest percentage of non-utilisation of healthcare services is observed among adolescents who are raised in the households of extended family, as they constitute 39% of the sampled population.

***Table 1*: Adjusted logistic regression analysis of the association between non-utilisation of healthcare and family structure and selected variables**

Adolescent characteristics	**Non-utilisation of healthcare services Adjusted OR (95% CI)**
Family structure *(Nuclear)*	
Solitary	1.52 (1.46 - 1.58)*
Extended	0.84 (0.83 - 0.85)*
Non-related	7.08 (6.49 - 7.73)*
Current age of respondent *(10-14 years old)*	
15-19	0.95 (0.93 - 0.96)*
Level of education *(Primary)*	
Secondary	1.30 (1.28 - 1.32)*
Sex of respondent *(Female)*	
Male	1.11 (1.10 - 1.12)*

Place of residence *(Urban)* Rural	0.81 (0.80 - 0.82)*
Population Group *(Other)* Black African	0.65 (0.64 - 0.66)*
Covered by medical aid or medical benefit scheme *(Yes)* No	2.83 (2.79 - 2.87)*

OR = Odds ratio; CI = Confidence Interval; * = $p < 0.05$

The results show that all the covariates are significant predictors of non-utilisation of healthcare services among adolescents in South Africa as the p-values are greater than 0.05. The odds of non-utilisation of healthcare services are higher among adolescents who live in child-headed households (solitary) (OR = 1.52) and among adolescents who are raised by non-related adults (OR = 7.08) in relation to adolescents who are raised in nuclear families. Contrary to these findings, the odds of non-utilisation of healthcare services are 0.84 times lower among adolescents who are raised by extended family in relation to adolescents who are raised in nuclear families.

In addition to these findings, the odds of non-utilisation of healthcare services are lower among adolescents who are between the ages of 15-19 years (OR = 0.95), who reside in rural areas (OR= 0.81) and who are African Black (OR = 0.65). Contrary to these findings, the results show that the odds of non-utilisation of healthcare services are higher among adolescents who have a secondary education (OR = 1.30) in relation to adolescents who have a primary education. Moreover, the odds of non-utilisation of healthcare services are higher among male adolescents (OR = 1.11) compared to female adolescents and higher among adolescents who are not covered by medical aid or medical insurance (OR = 2.83) in relation to adolescents who are covered by medical aid.

Conclusion

It is crucial to recognize the heterogeneity of family structures and the role they play in adolescent wellbeing, in particular, access to healthcare services. It is critical to foster adolescent health-seeking behaviour by exploring mechanisms through which family structure and adolescent health-seeking behaviours are connected.