



What's New in Research?



A review of recent research in the field of children affected by HIV and AIDS

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FOCUS on FAMILY FUNCTIONING IN RESPECT OF HIV/AIDS AND AREAS IN WHICH FAMILIES ARE AFFECTED BY HIV AND POVERTY

PEPFAR has partnered with The Human Sciences Research Council (HSRC), South Africa to produce ***What's New in Research?*** - a monthly newsletter that will alert readers to new scientific publications. The newsletter focuses on relevant, evidence-based applied science about children affected by HIV and AIDS, policy research, tests of effectiveness, rigorous program evaluation, and cost analysis. ***What's New in Research?*** is an effort to make existing research more visible and accessible, and to encourage further research activities in the field of Orphans and Vulnerable Children.

Reviewed in this edition of *What's New in Research?*

- Early impacts of orphaning: Health, nutrition and food insecurity in a cohort of school-going adolescents in South Africa
- Challenging household dynamics: Impact of orphanhood, parental absence, and children's living arrangements on education in South Africa
- Influences of family structure dynamics on sexual debut in Africa: Implications for research, practice and policies in reproductive health and social development
- Child mobility, maternal status, and household composition in rural South Africa
- Family functioning and coping styles in families of children with cancer and HIV disease
- Agents of support: Intra-generational relationships and the role of agency in the support networks of child-headed households in Zambia

The papers reviewed in the August Newsletter all deal with one or other aspect of family functioning in respect of HIV and AIDS impacts or in areas in which many families are affected by HIV and poverty. The publications draw attention to the complexity of family structure and function and caution against simplistic conclusions regarding HIV and AIDS effects on families and children. The results of the Bachman de Silva et al, and the Chuong and Operario studies all show, as many other prior studies have done, that orphans are not inevitably worse off than other children in affected communities. The impacts of orphaning on children depend very much on the family situation in which children are being cared for. Families differ by size, composition, socioeconomic status and by family changes, amongst others, and children in families have differential access to care and resources according to their age, gender, and relationships with adults in the household. Defoe and Dimbuene point to significant differences between Western and African families in their analysis of family transitions and age of sexual debut. Payne and Madhavan et al describe the agency of children, both in managing their lives and those of their siblings in child-headed households and in their mobility between households. Lastly, Martin et al suggest that families cope with HIV illness among children in different ways to how they cope with paediatric cancer, and the key differences relate to stigmatization associated with HIV and its stability.

Early impacts of orphaning: Health, nutrition, and food insecurity in a cohort of school-going adolescents in South Africa

Bachman DeSilva, M., Skalicky, A., Beard, J., Cakwe, M., Zhuwau, T., Quinlan, T., & Simon, J. (2012). *Vulnerable Children and Youth Studies*, 7, 75-87. doi: 10.1080/17450128.2011.648968

Published Abstract

We recruited a cohort of 157 recent orphans and 480 non-orphans aged 9-15 in a region of high HIV/AIDS mortality in South Africa using stratified cluster sampling to determine the impact of recent parental death on health and food insecurity of school-going orphans compared to non-orphans over time. Between September 2004 and June 2007, household heads, caregivers, and children were interviewed at three annual intervals. Bivariate associations and multivariate models were assessed using generalized estimating equations (GEE). In the health domain, compared to non-orphans, double orphans were more likely to report worse health status and being very ill in the previous 12 months. For those who reported being very ill, maternal or paternal orphans were more than twice as likely not to seek care than non-orphans; no differences were found for double orphans. For nutrition and food insecurity, maternal or paternal orphans were more likely not to have eaten dinner and to have gone to bed hungry the previous night compared to non-orphans; no differences were found for double orphans. Overall, recent school-aged orphans were disadvantaged in health and food insecurity within two years after the death of a parent, compared to their non-orphaned counterparts, but the disparities were smaller than expected. No changes in health, nutritional status, or food insecurity were apparent over the three study rounds. Longer term effects into adulthood may well be more pronounced and warrant careful longitudinal investigation.

Availability: Subscription or pay for access

Comment

It is disappointing that this and the following study (Chuong & Operario, 2011) do not refer to the most recent evidence on the impact of orphaning on children. Nonetheless, one strength of this study is that it examines “incident” orphaning – orphaning that occurs within a defined recent time period. Many studies simply divide children into orphans and non-orphans, regardless of whether a child lost a parent 8 years or 8 months ago. A second strength is that orphaned children are compared to randomly selected non-orphaned classmates. As with many other studies though, the researchers could not distinguish children orphaned by AIDS or children orphaned by other causes. Although the authors attempted to make comparisons between maternal, paternal and double orphans, the numbers in the three groups were very small. However, they conclude that “Contrary to our expectations, double orphans generally did not appear to be worse off than maternal or paternal orphans” (p. 84).

A last comment concerns the ethical issues involved in interviewing children. Children are regarded as a vulnerable group in research ethics, even more so if recent experience (such as parental death) may make them additionally vulnerable. Journal editors should insist that papers that report on interviews and other forms of data collection from children include reference to ethics review.

Implications for Policy and Practice

The implications of this paper and the majority of recent studies is that programmes should cease targeting children on the basis of orphaning alone. All children who lose a parent to whatever cause are likely to suffer emotional distress and may be dislocated from their familiar circles and surroundings if they have to move home and school. However, some families are able to cushion children from the worst effects of parental death, especially if they remain with a surviving parent. Rather, programmes should attempt to reach children and families when they first encounter HIV, as when a parent learns their positive status, and provide the family with support and access to treatment to prevent children from having to endure parental anxiety and preoccupation, illness and loss of livelihood.

Prevalence and incidence

Prevalence and incidence are often confused. Prevalence is a measure of the total number of cases, that is, how common a condition is in a population of people. The prevalence is calculated by dividing the number of people with the condition by the number of people in the population who could conceivably have the condition. Prevalence is often expressed as a percentage, by dividing the ratio by 100. As a hypothetical example - if the prevalence of disability among children in Zimbabwe is 8 percent, it means that 8 out of a 100 children 0-17 years of age in Zimbabwe have a disability. In the case of less commonly occurring conditions, the prevalence may be expressed per 100,000 of the population. For example, it is easier to comprehend a number if we say that 450 per 100,000 people than to say the prevalence is 0.0045. Incidence is the number of new cases of a disease or condition in a specified time period (usually a year) divided by the size of the relevant population who do not have the condition. For example, the incidence of HIV in Zambia in 2010 is the number of new cases detected divided by the number of people tested during that year.

Challenging household dynamics: Impact of orphanhood, parental absence, and children's living arrangements on education in South Africa

Chuong, C., & Operario, D. (2011). *Global Public Health*, 7,42-57. doi: 10.1080/17441692.2011.574147

Published Abstract

Public health and social-historical changes have had multiple effects on South African children and families. This study examines the association between challenging family dynamics, such as child orphan status, and educational delay, as defined by being below proper grade-for-age. Analysing the 2003/2004 South Africa Demographic and Health Surveys (DHS) dataset, we estimate orphan prevalence, maternal and paternal household presence, other household characteristics, and schooling variables in a nationally representative household sample. Among 5592 children ages 8-14 in South Africa, 21% had experienced parental death, 33% did not have their mother present in the household, and 63% of the children were not living with their father. Twenty per cent were behind proper grade-for-age. A bivariate analysis shows that orphaned children experienced 35% greater odds of being behind in school ($p < 0.001$). After adjusting for parental presence, household characteristics, and socio-demographic factors, orphan status does not remain significantly associated with being behind in school. However, maternal presence, relationship to the household head, number of children in a household, and socio-demographic characteristics each independently affect a child's likelihood of educational delay. Findings offer a more nuanced understanding of household dynamics that may protect against or exacerbate educational delays among vulnerable youth. Public health and social-historical changes have had multiple effects on South African children and families. This study examines the association between challenging family dynamics, such as child orphan status, and educational delay, as defined by being below proper grade-for-age. Analysing the 2003/2004 South Africa Demographic and Health Surveys (DHS) dataset, we estimate orphan prevalence, maternal and paternal household presence, other household characteristics, and schooling variables in a nationally representative household sample. Among 5592 children ages 8-14 in South Africa, 21% had experienced parental death, 33% did not have their mother present in the household, and 63% of the children were not living with their father. Twenty per cent were behind proper grade-for-age. A bivariate analysis shows that orphaned children experienced 35% greater odds of being behind in school ($p < 0.001$). After adjusting for parental presence, household characteristics, and socio-demographic factors, orphan status does not remain significantly associated with being behind in school. However, maternal presence, relationship to the household head, number of children in a household, and socio-demographic characteristics each independently affect a child's likelihood of educational delay. Findings offer a more nuanced understanding of household dynamics that may protect against or exacerbate educational delays among vulnerable youth.

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Comment and Implications for Policy and Practice

This paper very clearly places orphan effects against the backdrop of structural features of families in South Africa – these include delayed marriage, the separation of children from parents and spouses from one another, and the inter-linked nature of households within extended families. Children may live for extended periods of time with grandparents, aunts, and uncles and their children. One of the strengths of this study is that a strict definition of orphaning was adopted in analysing DHS data. Many studies count parents whose whereabouts are not known as deceased, an error more frequently made in respect of absent fathers. In this study, the orphan status of children of such parents was coded as missing and these cases were excluded from the analysis. As indicated in the abstract, when the statistical analysis took account of co-occurring factors, orphaning did not play a significant role in educational delay. The authors conclude that “public policy and interventions should not solely focus on biologically orphaned children in South Africa, as the country’s history of migration and family dissolution has had strong implications for the number of children, both orphaned and non-orphaned, who live apart from their parents” (pp 54-55).

Hamilton’s Rule

In the paper, the authors state on pages 33 and 34 that “The intricate household and living arrangements warrant focus in investigations that concern the schooling outcomes of children in South Africa. Case et al. (2004), citing Hamilton’s Rule (that the likelihood of altruistic behaviour depends not only on the costs and benefits of an action for two actors, but also on the genetic relatedness between the two), have hypothesised and confirmed that a child’s degree of relatedness to the household head is correlated to school enrolment.

William Hamilton was an evolutionary biologist who, in 1975, published an equation that was called “inclusive fitness”. This is explained in very basic terms in the following way - you and your sibling, parent, or child share half your genes. This is on average and does not specify which genetic variants you share, just that overall you share half your genes. That’s because everyone gets half their genes from their father and half from their mother. So, if you do something for your sibling that puts you at risk, say, of not having a child, but your assistance leads your sibling to have at least two children she or he wouldn’t have had without your help, then the genetic variants you carry will nevertheless still proliferate – on average through your siblings children who will carry your genetic variants that you share with your sibling. Again, simply, we share 50% of our genes with our siblings, parents, and children; 25% of our genes with our aunts, uncles, nieces, and nephews; and 12.5% of our genes with our cousins. So a relative-helping gene will be promoting a copy of itself 1 out of every 2 times it helps an immediate relative, out of every 4 times it helps a niece, nephew, etc., and 1 out of every 8 times it helps a cousin (<http://freethoughtblogs.com/hallq/2012/06/23/in-defense-of-evolutionary-psychology-part-3-hamiltons-rule-and-reciprocal-altruism/>). Richard Dawkins also explains reciprocal altruism in his book *The Selfish Gene* (page 90 onwards).

It is not at all clear that assertions regarding genes operate in the same way when applied to holistic human functioning, as individuals or groups, and irrespective of cultural beliefs and practices. For example, that a household head will make decisions to invest less in the education of a niece than a daughter, regardless of the history and context of the family and their relationships. This criticism has been best articulated by Steven Pinker, the linguist, who said that “The problem is that it also obfuscates evolutionary theory by blurring genes, individuals, and

groups as equivalent levels in a hierarchy of selectional units; ... this is not how natural selection, analyzed as a mechanistic process, really works. Most importantly, it has placed blinkers on psychological understanding by seducing many people into simply equating morality and culture with group selection, oblivious to alternatives that are theoretically deeper and empirically more realistic” (<http://edge.org/conversation/the-false-allure-of-group-selection>).

As the Chuono and Operario study shows, Research findings are often more complex than a simple expression of Hamilton’s Rule. Educational delay was found to be less likely if a child’s mother was present in the household and there were fewer children in the household (findings confirmed in many other studies – as well as having a non-linear relationship with the household head.

Influences of family structure dynamics on sexual debut in Africa: Implications for research, practice and policies in reproductive health and social development

Defo, B., & Dimbuene, Z. (2012). *African Journal of Reproductive Health (Special Edition)*, 16, 147-172.

Published Abstract

There is no research on the timing, sequencing and number of changes in family environment and their influences on sexual and reproductive health outcomes in Africa. Using a population-based survey with data on family structure at three points in the life course, this paper examines the influences of these family structure dynamics on the timing of first sex among unmarried males and females aged 12-24 years in Cameroon. The number and timing of family transitions significantly impacted the timing of sexual debut for both males and females. The median age at first sex (18.7 years) is higher among young people without family transition than among those with one transition (18.2 years) or two transitions (17.7 years). Family transitions occurring during childhood were significantly associated with premature sexual initiation for females but not for males. Reproductive health and social development interventions for young people in Africa should integrate the changing contexts and transitions in family structure.

Availability: Subscription or pay for access.

Comment

The authors give a detailed introduction to current concepts of the dynamics of family structure as a preface to their analysis of the Cameroon Family and Health Survey conducted in 2002, which included questions of both timing of sexual debut and family transitions. Three theories account for relationships between family functioning and the sexual and reproductive behaviour of adolescents, each of which is weakened by significant differences between Western and African families. These are: Socialization through observation and participation in family life, especially with key parenting figures. Socialization theory also emphasises the link between father absence and poor child outcomes. Parental absence as a result of migrant labour, polygamy (especially in West Africa) and the presence of non-parental adults in the

household may affect how socialisation affects sexual debut. Secondly, social control posits that parental supervision limits sexual activity. In African households, other adults adopt surrogate parenting roles; indeed, assert the authors, adults in many African societies mean “parents” and thirdly, family instability and change increase stressful events that may increase sexual activity as an alternative to love and affection at home. Deaths due to AIDS have increased parental deaths and child fostering is a central coping mechanism by which families “take advantage of the available resources through the extended kin networks ... to redistribute the costs and benefits of childrearing across the extended families (p. 151). Having laid the foundation, the authors test four hypotheses regarding family transitions or changes which they propose lead to earlier sexual debut through the number of transitions, their timing and their effects on the quality of parenting, being different for boys and girls. The analysis is based on 1 815 adolescents and young adults aged 12 to 24 years. The results strongly support the association between stable family life and living with both parents in either nuclear or extended families and delayed sexual debut for both males and females. Regarding timing, the risks of earlier sexual debut almost increased by 25 percent and 40 percent when family changes occurred during childhood and adolescence, respectively.

Implications for Policy and Practice

The authors urge more research on family environments in Africa, especially the processes assumed to play important roles in child and adolescent outcomes – connectedness, communication and parental control or supervision – all of which manifest differently in African as compared to Western families. They also recommend that efforts be directed at family-based intervention in Africa.

Child mobility, maternal status, and household composition in rural South Africa

Madhavan, S., Schatz, E., Clark, S., & Collinson, M. (2012). *Demography* 49, 699-718. doi: 10.1007/s13524-011-0087-3

Published Abstract

This article examines the influence of maternal status, socioeconomic status of the household, and household composition on the mobility of children aged 0–14 in Mpumalanga Province, South Africa, from 1999 to 2008. Using data from the Agincourt Health and Demographic Surveillance System, we found that children whose mothers were temporary migrants, living elsewhere, or dead had higher odds of moving than children whose mothers were coresident. Older children and children living in richer households faced lower odds of mobility. For children whose mothers were coresident, there was no effect of maternal substitutes on child mobility. However, among children whose mothers were temporary migrants or living elsewhere, the presence of prime-aged and elderly females lowered the odds of mobility. For maternal orphans, the presence of elderly women in the household lowered their odds of mobility. The results

underscore the importance of examining the conditions under which children move in order to strengthen service delivery targeted at safeguarding children's well-being.

Availability: Subscription or pay for access.

Comment

The authors motivate for increased study of child mobility in sub-Saharan Africa on at least four counts. Firstly, the increased labour and livelihood migration of women, increased maternal deaths associated with AIDS, union instability and the likely impact of child mobility on children's nutrition, access to health care and educational attainment. Union instability causes child mobility because women move on to partnerships with men in which children from previous unions are not welcome. They point out that little attention has been given to children in the migration literature, in which children are assumed to simply accompany their parents. The study tests three hypotheses about child mobility using data from a demographic surveillance system in South Africa. These are: 1) the higher the socioeconomic status of the household, the lower the odds of mobility; 2) children whose mothers are absent as a result of migrancy, union status or death are more mobile than children co-resident with their mother; and 3) when a mother is not present, children in households with maternal substitutes are less likely to be mobile. The Agincourt site is home to 81 147 people living in 14 119 households. The child cohort is composed of children 0-14 years of age who ever lived in the site between July 1999 and July 2008 – a sample of 50 978 children, of whom 16 513 children moved at least once. As has been shown in previous studies, movement is most common among children 0-4 years of age, followed by children 5-9 and then those 10-14 years of age. Hypotheses 1 and 2 were both supported by the results – children from wealthier households move less than those from poorer homes, and children who are not co-resident with their mothers are more likely to move than those who are co-resident. With respect to maternal substitutes, children are less likely to move when their mothers are temporary migrants only if there are prime aged (women in the reproductive age range) women in the households – but their mobility is unaffected by the presence of one or more older women if their mother is absent. This changes for maternal orphans, who are less likely to move if they live with an older female caregiver. The authors speculate that both push factors (household size) and pull factors (maternal income) affect child mobility, and that it is important for future research to examine the characteristics of both sending and receiving households when examining the impact of residential moves on child and adolescent outcomes

Demographic Surveillance Systems (DSS)

DSS are sites in which the major demographic or vital events are monitored through regular census – births, deaths, marriages, in-migration and out-migration. DSS sites are often set up as a backdrop to the study of one or more diseases with a major impact on these events. For example, Agincourt, the environment described in this paper, evolved from an initial census conducted in 1982 to a fully fledged DSS site to study the health, population and social transitions occurring in rural South Africa to support appropriate public health responses to mitigate their impact. The International Network for the Demographic Evaluation of Populations and Their Health (INDEPTH) is a global network of sites that conduct longitudinal health and demographic evaluation of populations in low- and middle-income countries (LMICs). INDEPTH has 37 demographic surveillance sites in 19 different countries, 25 of which are in Africa. Many of the studies reviewed in these newsletters are based on data collected in DSS sites. This is because they cover very large numbers of people and households, who are followed up regularly, and this data can thus meaningfully contribute to understanding the situation of children who are orphaned, parents who are put on treatment and others who die, children's health and education and many other topics of relevance to supporting children affected by HIV and AIDS.

Family functioning and coping styles in families of children with cancer and HIV disease

Martin, S., Calabrese, S. K., Wolters, P. L., Walker, K. A., Warren, K., & Hazra, R. (2012). *Clinical Pediatrics*, 51, 58-64. doi: 10.1177/0009922811417300

Published Abstract

Disease-specific characteristics of pediatric illnesses may influence the functioning of families and the coping responses they enact. This study compared family functioning and coping styles within and between 2 different medical groups: families of children with cancer (n = 44) and HIV disease (n = 65). Most caregivers reported healthy family functioning, and no between-group differences in functioning emerged. However, with regard to coping, more reliance on social support was indicated among the cancer group. Also, the HIV group largely sought support from family, whereas both family and nonfamily support were sought among the cancer group. Better functioning was related to reframing, an active coping style, within the cancer group and passive coping within the HIV group. Thus, coping strategies and their implications for family functioning vary by condition. Researchers should avoid combining various illness groups indiscriminately. Likewise, clinicians should be sensitive to disease-specific factors when helping families learn to cope with illness-related stressors.

Availability: Subscription or pay for access.

Comment

The study is motivated on the observation that previous research on family coping has tended to ignore potentially significant disease-specific differences by combining illness groups. Specifically, the study examines active and passive coping styles, with active coping styles being associated with positive psychological outcomes among families with children suffering from paediatric cancer and among adults with HIV. Active coping refers to active problem-solving and goal-oriented activities, whereas passive coping refers to denial and disengagement. Both groups of children ranged in age from 2 to 18 years and all children were well at the time the study was conducted. The fact that families of children living with HIV tended to seek support within the family circle was attributed to persistent perceptions of stigma among HIV-affected groups. The association between passive coping and psychological health among HIV-affected families was attributed to the fact that these families, in contrast to families dealing with paediatric cancer, faced fewer or more foreseeable illness-related challenges because drug treatment was successfully suppressing illness and the disease was under control. However, a fairly marked difference in the racial composition of the two groups, with many more African American families being affected by HIV than families affected by cancer may have confounded the findings.

Implications for Policy and Practice

Clinicians and other support staff need to be sensitive to the way in which perceived stigmatization may affect the capacity of HIV-affected families to seek the support they need. They also need to be aware of differences in successful coping styles in relation to different childhood illnesses.

Agents of support: Intra-generational relationships and the role of agency in the support networks of child-headed households in Zambia

Payne, R. (2012). *Children's Geographies*, 10(3), 293-306. doi: 10.1007/s10461-012-0240-z

Published Abstract

This article explores the role of children and young people's agency in the context of their intra-generational relationships in child-headed households (CHHs) in Zambia. It considers how CHH members construct networks of support both within and outside these households, paying particular attention to the inconsistency of sibling relationships and the role of non-kin relations in peer support as an example of 'extending the family' [Jamieson, L., Morgan, D., Crow, G. and Allan, G., 2006. Friends, neighbours and distant partners: extending or decentring family relationships? Sociological research [online], 11 (3). Available from: <http://www.socresonline.org.uk/11/3/jamieson.html> [Accessed 29 March 2010]]. It argues for greater acknowledgement of children and young people's agency in the context of constructing

and maintaining networks of support to ensure policy and practice is responsive to the fact that CHH members are agents of support rather than simply recipients of support or 'beneficiaries'. This article is based on ethnographic research with 11 CHHs in rural and urban Zambia between 2004 and 2008.

Comment and Implications for Policy and Practice

Payne points out that child-headed households are usually considered to be a social problem that needs to be fixed by returning them to 'normal' functioning and 'normal' childhoods. This is frequently done by providing an adult mentor, who is often resented by children. The paper calls for a re-think of child-headed households, not as passive recipients of support or beneficiaries of the aid of non-governmental organizations but as active individuals and groups involved in addressing their own needs. Their emerging household form is a solution to the problems they face. They "represent an emerging coping mechanism in which children and young people attempt to mitigate the impacts of parental absence, abandonment and dysfunctionality through the construction and maintenance of supportive intra-generational relationships" (p. 303). The author argues that this is another example of the extension of the concept of 'family' and recommends that such households can best be assisted by strengthening their existing support networks and actively engaging children and young people in these households in decisions about appropriate support.