The Role of Household Environment on Health Outcomes for Female Adolescents in Kenya

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Statement of the Research Problem

Chronic illness has a profoundly negative impact on the welfare of households, and especially for the adolescents who live there. Those who lack a social safety net, particularly the youth, are much more dependent on the capacities of individuals within the household. Therefore, to better understand how to improve the general welfare of households, it is important to understand what factors impact the social welfare and health status of households impacted by chronic illness. In Kenya, by 2004, HIV had infected about 1.2 million people and an estimated 150,000 have died due to HIV/AIDS. These high numbers of deaths leave behind a large number of children (Akukwe, 1999; UNAIDS et al., 2004). The estimated number of Kenyan children who have lost one or both parents to AIDS was about 650,000 in 2004 (UNAIDS/WHO, 2004).

Even if we were able to prevent any new HIV infection this year, the AIDS epidemic would have a long-lasting impact. The sheer scale of HIV-related deaths and infections in Kenya affects the country on all levels of development. For example, adolescents in households affected by HIV/AIDS often experience a loss in their ability to earn an income due to their lower educational attainment, the disintegration of their families, isolation from their local communities, and consequent negative health outcomes (Blum, 1998; Call et al., 2002; LaFraniere, 2005; Nyambedha et al., 2003).

This study has examined the health status of vulnerable female adolescents and young adults under the age of 24 in different households. The average age in Kenya has continuously declined because of the high death rate and increases in the total fertility rate to 4.1, resulting in a population in which nearly half (45%) of the population being under the age of 15 (Kenya Central Bureau of Statistics (CBS) et al., 2004). These adolescents have a lower rate of life expectancy because of high rates of HIV/AIDS infection (Nyaga et al., 2004).

Research Background and Hypotheses

As adult morbidity and mortality rates continue to increase due to HIV/AIDS in many parts of Kenya, the strength of family support systems can be expected to decline

(Foster, 2000; Kenya Central Bureau of Statistics (CBS) et al., 2004). As adult mortality rates increase, the number of supportive family members has decreased, weakening the extended family network (Seeley et al., 1993). For many children and adults in Kenya, the extended family is the only social safety net available. The extended family is very important for the protection and development of children and adolescents (Seeley et al., 1993). An increase in the morbidity rate for the adult population in a community also decreases the economic resources available to those impacted families. Extended family members usually take over the caring responsibilities when a child's biological parents are no longer alive or not able to provide them support. Unfortunately the support potential of extended families has been affected by HIV/AIDS; the capacity of communities throughout Kenya to provide care for vulnerable children has been eroded (Ankrah, 1993; Foster, 2000; Vartanian & Buck, 2005).

The purpose of this study is to investigate the indirect impact of HIV/AIDS on family environment on the vulnerability and self-reported health outcomes of female adolescents in Kenya (Baer, 2002; Bronfenbrenner, 1986; Earls & Carlson, 2001; Liddle & Hogue, 2000). The developmental-ecological theory informed this research on the effects of the environment on adolescent's health (Baumeister & Leary, 1995; Bogenschneider, 1996; Bronfenbrenner, 1986; Cassel, 1976; Cobb, 1976; Evans, 2004). This theoretical framework connects social, biological and physical factors for coping with health risks in the vulnerable adolescent population.

Hypotheses

Based on the literature review and conceptual models, this study tested a number of relationships between the health outcomes of female adolescents and their environment when exposed to life shocks such as death or the chronic illness of a family member. The overall hypothesis is that higher household resources help lower health risks, but the absence of parental guidance increases these risks. The following specific hypotheses guided the research:

1. There is difference in self-reported incidences of illness between younger female adolescents and young adults.
2. Higher levels of risky sexual behavior and other risk factors will increase incidence of self-reported illness.
3. Higher household coping capacity will lead to lower incidence of self-reported illness.

Methodology

The data for this study came from the 2003 Kenya Demographic and Health Survey (KDHS) (Kenya Central Bureau of Statistics (CBS) et al., 2004). The data includes detailed information on maternal and child health from Kenyan females' ages 15 to 49 years. The study focuses on adolescents aged 15 to 24. The average age for this population was 19.39 years; those between the ages of 20 and 24 comprised nearly half (over 47%) of the sample) (Arnett, 2004).

The variables selected from this dataset include 1) individual demographic information (age, martial status, education, place of residence, ethnicity, relationship with head of household), 2) the household coping capacity (HCC) (Demographic, Economic and Coping Characteristics Indices), 3) risk factors (risky sexual behavior, incidence of violence) and 4) self-reported incidence of illness reported within two weeks of the survey. Univariate and multivariate analyses were used to examine the hypothesis. SPSS version 13 statistical software was used to conduct the analysis for this study.

Results

This study showed an increase in age was significantly associated with an increase in report of illness for this population in all study analyses. It was assumed that with age comes the development of life skills necessary to improve one's health. However, young adults may be at more risk for illness because they leave the parental protection of home when they move out on their own. Over 57% of the respondents indicated that they did not live with their parents. These results suggest that being in a parent-headed household was a protective factor.

As expected, an increase in the level of education was associated with lower reports of illness. With education may come knowledge of self-care as well as improved income, leading to better diet (Wojcicki, 2005).

An unexpected was finding was that marriage was positively associated with reported illness. Married respondents reported more illness than unmarried respondents. Shared resources and income for married adolescents were expected to have a protective effect but they did not. Pregnancy could have been an explanatory factor but further analyses to understand these results indicate only a small number of those reporting any form of illness were currently pregnant.

The place of residence also had an effect on illness. A large number of the respondents live in rural areas (74.29%), which prove to be negatively related to health. This finding may be explained by the fact that many rural women have husbands who work in urban areas and are thus -living alone and supporting themselves (Keirle & Thomas, 2000).

Ethnic groups from the Central region of Kenya and those from the Coast were less likely to report illness than those from other regions. The Luo were used as the referent group; they had the highest levels of HIV positive status, reports of abuse, low Household Coping Characteristics, risky sexual behavior and self-reported illness. The groups closest to the Luo were those in the West. Although results were not significant, membership in this ethic group was positively correlated with reported illness.

Utility for Social Work Practice

The study provides direction for health care practitioners who work with adolescents and emerging adults in Kenya. Practitioners should be advised to consider the potential of abuse or violence among those consistently reporting illness. Abuse and violence appear to be significant factors associated with reported illness. Health care

practitioners can also advocate for policies that increase the protection of adolescents. High rates of adolescent abuse may increase medical costs associated with both physical and mental health for the community they are in.

The findings of this study inform the need for increased awareness of marriage among adolescents. Marriage among adolescents appears to increase the risk of illness. Social workers can work with communities to create contextually-appropriate interventions designed to protect adolescents from exploitative early marriage and abuse.

Culturally and age-appropriate information about risky sexual behavior should be introduced in schools. Kenya has a vast network of women's groups that could assist in the dissemination of information to local communities. Mothers and grandmothers could provide a local context for the message to adolescents.

Work with households headed by adolescents to reduce the effects of illness should be a priority among health care practitioners. Low levels of education and diminished household coping capacity can compound illness in these households. Interventions to keep youth in school and to increase the capacity for coping could lead to a reduction in illness among adolescents.

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