

# Confronting the ‘Sugar Daddy’ Stereotype: Age and Economic Asymmetries and Risky Sexual Behavior in Urban Kenya

By Nancy Luke

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**CONTEXT:** “Sugar daddy” relationships, which are characterized by large age and economic asymmetries between partners, are believed to be a major factor in the spread of HIV in Sub-Saharan Africa. Information is needed about sugar daddy partnerships—and about age and economic asymmetries more generally—to determine how common they are and whether they are related to unsafe sexual behavior.

**METHODS:** The sample comprised 1,052 men aged 21–45 who were surveyed in Kisumu, Kenya, in 2001. Data on these men and their 1,614 recent nonmarital partnerships were analyzed to calculate the prevalence of sugar daddies and sugar daddy relationships, as well as a range of age and economic disparities within nonmarital partnerships. Logistic regression models were constructed to assess relationships between condom use at last sexual intercourse and various measures of age and economic asymmetry.

**RESULTS:** The mean age difference between nonmarital sexual partners was 5.5 years, and 47% of men’s female partners were adolescents. Fourteen percent of partnerships involved an age difference of at least 10 years, and 23% involved more than the mean amount of male-to-female material assistance. Men who reported at least one partnership with both these characteristics were defined as sugar daddies and made up 5% of the sample; sugar daddy relationships accounted for 4% of partnerships. Sugar daddy partnerships and the largest age and economic asymmetries we constructed were associated with decreased odds of condom use.

**CONCLUSIONS:** Although sugar daddy relationships are not as pervasive as generally assumed, age and economic asymmetries in nonmarital partnerships are relatively common. All these types of asymmetries are associated with nonuse of condoms. Increasing women’s power within asymmetric sexual relationships could improve their ability to negotiate safer sexual behaviors, such as condom use.

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A great deal of anecdotal evidence suggests that “sugar daddies” are common in Sub-Saharan Africa and are helping to fuel the spread of HIV. The stereotypical sugar daddy is an adult male who exchanges large amounts of money or gifts for sexual favors from a much younger woman. Sugar daddy relationships are associated with both age and economic asymmetries, which are believed to limit young women’s power to negotiate safer sexual behavior.

The alarm over sugar daddies has been sounded not only in the African popular discourse but also by researchers and health care workers. Researchers caution that sugar daddies are seeking out adolescent partners with increasing frequency in the belief that these women are unlikely to be infected with HIV.<sup>1</sup> Health organizations have deemed these men particularly problematic and have devoted programmatic resources to campaigns that warn young women to “beware of sugar daddies.”<sup>2</sup> In the era of HIV/AIDS, sugar daddy relationships have been constructed as a major health concern, frequently labeled “the sugar daddy syndrome,” “the sugar daddy trap” or “the sugar daddy phenomenon,” in which young women, often adolescents, bear most of the risk.<sup>3</sup>

The perception that sugar daddies are numerous seems

reasonable in many African contexts, because social norms often permit (and even encourage) men to engage in sex outside of marriage and with younger partners.<sup>4</sup> In addition, socioeconomic realities enable men to monopolize sources of income and give older men more social and economic power than young men.<sup>5</sup> The belief that sugar daddies practice unsafe sexual behavior is supported by growing evidence that HIV infection levels are higher among adolescent women than among their male counterparts. For example, research in Kisumu, Kenya (the site of our study), found that 27% of females aged 15–19 were infected with HIV, compared with 5% of males in that age-group.<sup>6</sup> Age disparities in sexual relationships have been offered as a likely explanation for this difference, because rates of HIV infection are often higher among adult men than among male adolescents.<sup>7</sup> Although large age and economic asymmetries between sexual partners exist throughout Sub-Saharan Africa, they raise the most concern when united in sugar daddy relationships.

Despite these seemingly logical assumptions about sugar daddies, there is no empirical evidence that they are common or that they tend to engage in unsafe sexual behavior. Are sugar daddies less likely to use condoms than other

men? Do they practice risky behavior in all their relationships, including those without age and economic asymmetries? Moreover, little is known about the link between unsafe sex and the separate components of sugar daddy relationships: age and economic asymmetries.<sup>8</sup> Our study uses data on male nonmarital sexual behavior in Kisumu to investigate some of the common assumptions surrounding sugar daddies and their sexual relationships. The prevalence of HIV reached 26% in Kisumu in 1997,<sup>9</sup> which suggests that unsafe sexual behavior is widespread; therefore, this city provides an interesting context in which to study age and economic asymmetries between nonmarital partners.

In this article, we calculate the prevalence of sugar daddies, sugar daddy partnerships, and age and economic asymmetries more generally. In addition, we examine condom use at last intercourse within nonmarital partnerships that occurred during the month preceding the survey (referred to here as recent nonmarital partnerships). We test the hypotheses that sugar daddy relationships are the least likely to involve condom use and that age and economic asymmetries are independently linked to the nonuse of condoms.

## DATA AND METHODS

### Kisumu Survey

The capital of Nyanza Province and traditional home to the Luo ethnic group, Kisumu attracts many Luo migrants seeking education and employment and is a central town on the highway from coastal Kenya into Uganda. Our data derive from a random sample of 2,700 Luo males aged 21–45 who were surveyed between July and August 2001. Kenyan Census Bureau enumeration areas were used as primary sampling units. Of these, 121 were chosen through a systematic random selection process, and all households in each enumeration area were selected. Trained fieldworkers interviewed all 21–45-year-old men living in each household. The study followed procedures of informed consent and confidentiality.

Respondents were asked to report their demographic characteristics and the number of nonmarital sexual partners they had had in the last year; the survey also gathered data on participants' five most recent partners.\* Partner and relationship information included each female partner's age, whether she was a commercial sex worker, the duration of the partnership, date of last sexual intercourse, condom use at last sexual intercourse and material assistance given to each female partner in the last month.

Previous survey questions on economic exchange in sexual relationships face several limitations.<sup>10</sup> The standard phrasing—which asks if a respondent has ever exchanged money or gifts for sex—may lead to underreporting because it invokes commercial sexual relationships. In addition, surveys do not usually record items other than money or gifts, or measure specific exchanges across an individual's multiple partnerships. We constructed our survey question to capture an expanded definition of material exchange in the Kisumu context. The question read “It is common for men

to give women gifts or other assistance when they are in a relationship. What have you given your partner(s) in the last month?” Response options included the major types of assistance uncovered in pretesting, including money; gifts; meals, drinks and food; and rent. The survey focused on material items of quantifiable value and did not measure other forms of assistance, such as social support or job contacts.<sup>11</sup> For each category of assistance given to each sexual partner, respondents were asked to estimate the amount of money or value of the items in Kenyan shillings (US\$1 was approximately Ksh 70 at the time of the study). The question was limited to material assistance that had been provided in the last month to increase the accuracy of recall.

Like previous studies of exchange, our study is cross-sectional and examines material assistance only for the month preceding the survey. However, we recognize that men may be more able or willing to give material assistance during certain times of the year, and women may request more during specific months (e.g., periods of food insecurity or when school fees are due). To check for variations in material assistance and condom use across the two months of our data collection period, we included a dummy variable for the month of the interview in each regression. This variable was not significant, nor did it appreciably change the results; therefore, we do not include it in the analyses presented here.

Gathering data on sensitive issues, such as sexual behavior and exchange, is difficult in survey settings because respondents tend to underreport behaviors that may be considered socially inappropriate. In addition, male respondents may exaggerate their reports of material assistance given to female sexual partners. Although our data and observations indicate that nonmarital sexual relationships involving material assistance are widespread and socially acceptable in Kisumu, data quality was of paramount importance to the project. The research team took several steps to ensure the validity and reliability of reporting, particularly for questions regarding sexual behavior and exchange.

First, a culturally sensitive survey instrument was developed by the principal investigators and by members of a Kenyan research organization who had extensive experience working on sexual and reproductive health projects in Kisumu. The survey questions were carefully pretested, and their phrasing was constructed to avoid stigmatizing nonmarital sexual partnerships and provision of material assistance to partners. Second, interviewers were trained to inquire about sensitive issues and were observed closely throughout the study period. Supervisors returned to respondents to check any answers that appeared exaggerated, such as very young ages of sexual partners or very large amounts of material assistance. Data on sexual activity for the first half of the survey sample were logged daily along

\*Of the men reporting nonmarital sexual partners in the last year, 95% had no more than five.

with interviewer codes and analyzed statistically to determine if any interviewer consistently gathered responses that were substantially higher or lower than the average values for such characteristics as men's number of nonmarital partners. If so, these interviewers were observed more closely and given additional training. Poor interviewing and underreporting of sexual partners led to the dismissal of one interviewer from the research team; his interviews were re-conducted. As an additional check, all of our regressions control for systematic variation in responses by interviewer. Finally, 4% of respondents were reinterviewed by supervisors to check the reliability of responses with respect to marriage, migration and sexual behavior. Reliability was extremely high; for example, 96% reported the same number of nonmarital sexual partners as they had in the original interview. We believe that these efforts produced a high-quality data set comparable to those collected in other, reliable studies from urban Africa. For example, in a study conducted in Kisumu by the Study Group on the Heterogeneity of HIV Epidemics in African Cities, 48% of 15–49-year-old males reported having had a nonmarital sexual partner in the last year,<sup>12</sup> a proportion similar to that in our sample. In addition, the prevalence of male nonmarital sexual activity and the levels and value of material assistance that we uncover in Kisumu are similar to those found by several studies in Ondo State, Nigeria.<sup>13</sup>

### Sample

We organize our data set in two ways. In the first method, each male respondent is an observation; data organized in this way give information on men's characteristics and behavior. The second method uses partnership-based data. A respondent may have reported more than one nonmarital partner, so each partnership is one observation, and the man's characteristics are attributed to each partnership in which he was involved.

Because the reference period for questions regarding material assistance was the last month, we limit our sample to the 1,052 male respondents who reported at least one nonmarital sexual partner with whom intercourse had taken place in the last month. We then examine all these respondents' recent nonmarital partnerships, for a total of 1,614 partnerships. These partnerships include commercial and noncommercial relationships and may have been of short or long duration; many were concurrent. Respondents had 1.5 recent nonmarital partnerships on average.

### Identifying Sugar Daddies and Asymmetries

Sexual behavior is not an individual attribute but an outcome negotiated between partners. Therefore, risk behavior, such as the nonuse of condoms, depends not only on the characteristics of both partners but also on the power differentials between them. Large differentials can place the less powerful partner at risk by reducing his or her ability to negotiate safer sexual behavior. Our study examines age and economic asymmetries as distinct types of power differentials within sexual partnerships. We explore sugar

daddy partnerships by constructing measures of age and economic asymmetries associated with stereotypical sugar daddy relationships. We employ several cutoffs to gain a clearer picture of how these asymmetries are represented in the population—both alone and together in sugar daddy partnerships—and how they relate to condom use at last sexual intercourse.

The literature does not contain a standard definition of a sugar daddy, although most agree that sugar daddy relationships entail large age and economic asymmetries between partners.<sup>14</sup> Several studies that examine the association between age differences and unsafe sexual behavior and HIV infection define a large age difference as 10 or more years, and others use a five-year cutoff.<sup>15</sup> As a starting point for our analysis, we define a 10-year age difference as a large asymmetry. However, some researchers have argued that sugar daddies are often old enough to be their partner's father,<sup>16</sup> and use of a 10-year cutoff would overestimate the number of sugar daddies. Therefore, we also investigate the prevalence of relationships that involve differences of at least five years and at least 15 years. We also divide age differences into smaller increments in our analysis of condom use.

Our measure of economic asymmetry is based on the total amount of male-to-female material assistance reported for each nonmarital partnership. The stereotypical sugar daddy lavishes money and gifts on his younger partner, and thus we define a large economic asymmetry as an amount of material assistance greater than the mean amount among all partnerships that involved any assistance (Ksh 608 or approximately US\$9). In addition, we examine the prevalence of partnerships that involved any material assistance and include smaller increments of assistance in our analysis of condom use.

In some portrayals, sugar daddies seek out adolescent female partners in particular. Therefore, the age of the female partner is also an important characteristic of sugar daddy relationships. Thus we calculate the prevalence of sugar daddies with an adolescent partner (i.e., younger than 20) and of sugar daddy partnerships that involved an adolescent woman.

Our primary definition of a sugar daddy relationship is a recent nonmarital partnership that involved an age difference of 10 or more years *and* an amount of assistance greater than the mean. A sugar daddy is a respondent who reported at least one sugar daddy partnership. Many sugar daddies had engaged in additional recent nonmarital partnerships that did not involve both age and economic asymmetries. These additional partnerships are defined as sugar daddy "other" partnerships. A non-sugar daddy is a respondent who did not have any nonmarital partnerships that involved both asymmetries; these respondents' relationships are designated as non-sugar daddy partnerships.

In sum, we separate respondents into two categories: sugar daddies and non-sugar daddies. Men's recent nonmarital partnerships are classified into three categories: sugar daddy, sugar daddy "other" and non-sugar daddy. By comparing associations between these partnership categories

and condom use, we will determine if sugar daddies engage in unsafe behavior (in which case they will be less likely than other men to report condom use with all of their partners) and if sugar daddy partnerships in particular are riskier than other partnership types.

### Analyses

First, we provide descriptive statistics on age and economic asymmetries and calculate the prevalence of sugar daddies in the study population and of sugar daddy relationships among all recent nonmarital partnerships. Second, we examine the associations between various asymmetries and condom use at last sexual intercourse using bivariate and logistic regression analysis. Many standard measures of sexual risk behavior (e.g., number of lifetime partners, ever use of condoms) measure cumulative risk and do not account for variations in risk behavior across an individual's multiple partnerships. In contrast, our dependent variable measures condom use at last sexual intercourse within each partnership. For the analysis of condom use, all recent nonmarital partnerships serve as our population of interest.

Our first set of logistic regression models examines differences in condom use by the three categories of partnerships. Model 1 includes a dichotomous variable to account for whether the female partner was younger than 20, and Model 2 includes female partner's age as a continuous variable. The models also contain selected male, female and partnership characteristics as control variables.

Our second set of models examines the relationship between condom use and age and economic asymmetries independently. In each of the three models, we include different measures of age disparity and material assistance to test how various age and economic asymmetries relate to condom use. We measure age differences with two dichotomous variables for differences of five or more years and 10 or more years and a categorical variable divided into smaller increments (same age or female older, and male 1–4 years, 5–9 years and 10 or more years older). Our three measures of material assistance include dichotomous variables for any assistance versus none and for assistance greater than the mean versus the mean or less.\* We also construct a categorical variable that divides the range of assistance into smaller increments (no exchange, Ksh 1–200, Ksh 201–700 and Ksh 701 or more). The second set of models contains the dichotomous variable for female partner's age as well as control variables for individual and partnership characteristics.

We note that all three age-related variables (age of male partner, age of female partner and age difference between partners) cannot be included in the same regression model because of collinearity; therefore, we exclude male partner's age from all models. In addition, observations across an individual's multiple partnerships are not independent. We use the robust cluster command in Stata to compute standard errors that account for heteroscedasticity and correlated residuals across partnerships for the same individual.<sup>17</sup> Dummy variables to control for differences across

**TABLE 1. Descriptive statistics for male respondents, recent nonmarital female partners and recent nonmarital sexual partnerships, Kisumu, Kenya, 2001**

Characteristic	Mean or %	Standard deviation	Range
<b>Respondent*</b>			
Mean age (yrs.)	26.1	5.2	21–45
Mean education (yrs.)	10.0	2.6	2–18
Mean income in last month (Ksh)	4,846.7	5,463.7	0–60,000
<b>Female partner†</b>			
Mean age (yrs.)	20.3	3.7	12–41
Commercial sex worker (%)	5.3	na	na
<b>Partnership‡</b>			
Mean age difference	5.5	4.4	–15–28
Involved any material assistance (%)	73.7	na	na
Mean amount of assistance (Ksh)‡	608.1	824.8	10–6,500
Mean duration of partnership (mos.)	13.2	16.9	0–169
Used a condom at last sexual intercourse (%)	50.0	na	na

\*N=1,052. †N=1,614. ‡Among those partnerships in which any material assistance was provided. Note: na=not applicable.

interviewers are also included, but not reported, in all regression models.

## RESULTS

### Asymmetries and the Prevalence of Sugar Daddies

Respondents' mean age was 26, reflecting the young age structure of Kisumu's urban migrant population (Table 1). Men had a mean education level of 10 years and a mean income of Ksh 4,847 (approximately US\$69) in the last month. Female sexual partners were 20 years old on average, and one in 20 was a commercial sex worker. Across all recent nonmarital partnerships, the mean age difference was 5.5 years. Approximately three-quarters of partnerships involved some material assistance, and the mean amount given was Ksh 608. The average duration of partnerships was 13 months; men's relationships with commercial sex workers tended to be relatively short (not shown), so this figure reflects the longer duration of nonmarital partnerships that were not explicitly commercial. Condom use at last sexual intercourse was reported for half of all partnerships.

Seventy percent of men were five or more years older than at least one of their recent nonmarital partners (Table 2, page 10). Twenty percent had been involved in a relationship with an age difference of 10 or more years, while 5% had engaged in a partnership with an age difference of 15 years or more. These percentages are smaller when partnerships serve as the primary unit of analysis (55%, 14% and 4%, respectively). Further division of age differences reveals that in 6% of partnerships the female was the same age as or older than the male, in 39% the male was 1–4 years older than the female, and in 41% the male was 5–9 years older (not shown). This demonstrates that most female partners were not excessively younger; in fact, the large majority were less than 10 years younger. Nevertheless, a sub-

\*For all descriptive statistics and regressions, we drop partnerships that include the top 1% of material assistance amounts as extreme outliers.



**TABLE 2. Percentage of male respondents and recent non-marital partnerships, by selected measures of age and economic asymmetries**

Measure	%
<b>RESPONDENT-BASED*</b>	
<b>Age difference</b>	
≥5 yrs. older than ≥1 partner	70.0
≥10 yrs. older than ≥1 partner	19.6
≥15 yrs. older than ≥1 partner	5.2
<b>Material assistance</b>	
Any assistance to ≥1 partner	83.5
>mean (Ksh 608) to ≥1 partner	32.9
<b>≥1 partner aged &lt;20 yrs.</b>	60.1
<b>Sugar daddy prevalence</b>	
Sugar daddy	5.3
Sugar daddy with adolescent partner	2.1
<b>PARTNERSHIP-BASED†</b>	
<b>Age difference</b>	
≥5 yrs. older than partner	54.8
≥10 yrs. older than partner	14.2
≥15 yrs. older than partner	3.9
<b>Material assistance</b>	
Any	73.7
>mean (Ksh 608)	22.6
<b>Partner aged &lt;20 yrs.</b>	47.3
<b>Partnership categories</b>	
Sugar daddy	3.5
Sugar daddy with adolescent partner	1.2
Sugar daddy "other"	2.4
Non-sugar daddy	94.2

\*N=1,052. †N=1,614.

stantial minority of partnerships had large age differences. These results parallel findings from a review of studies of adolescent females and their sexual partnerships, which found that a majority of adolescent women have partnerships with men only a few years older, but relationships with large age differences represent a sizeable minority.<sup>18</sup>

Table 2 also shows that eighty-four percent of men had given material assistance to at least one recent nonmarital partner in the last month; 33% had given more than the average Ksh 608. The figures for material assistance within partnerships are smaller than those for the respondent-based measures (74% of partnerships involved any assistance, and 23% involved more than the mean). Further division of material assistance categories shows that 28% of partnerships involved assistance of Ksh 1–200, 29% involved assistance of 201–700, and 17% involved assistance of more than Ksh 700 (not shown). These results are comparable to findings from other studies, which have shown that material exchange is common in adolescent females' relationships in Sub-Saharan Africa.<sup>19</sup> Finally, 60% of men had at least one adolescent partner, and 47% of partnerships were with women younger than 20.

According to our primary definition, sugar daddies made up 5% of the men in our sample, and sugar daddy partnerships represented 4% of all recent partnerships. Only 2% of men and 1% of partnerships corresponded to our

definition of a sugar daddy with an adolescent partner. Among all recent partnerships, 2% were sugar daddy "other" partnerships, and 94% were non-sugar daddy relationships. Further analysis revealed that the overwhelming majority of sugar daddies (87%) had engaged in only one sugar daddy partnership in the last month; 11% had had two such partnerships, and 2% had had three (not shown). Our results demonstrate that most sugar daddies in Kisumu had not engaged in multiple asymmetric relationships, either concurrently or serially, in the last month.

Our findings indicate that the prevalence of sugar daddies in the adult male population is much lower than popular perception contends. We calculated these figures using a base population of men with at least one recent nonmarital partner. If all men in our initial sample are included in the denominator, the proportion who were sugar daddies decreases to 2%. Moreover, if we limit our definition to relationships with an age difference of 15 years or more (i.e., relationships in which the man approaches an age at which he could be his partner's father), the percentage of sugar daddies decreases to 2%. These narrower definitions result in extremely low percentages; however, our figures could also be underestimates. For example, if we restrict our population to older men (who are more likely than young men to have partners 10 or more years younger) the prevalence of sugar daddies increases to 10% among men aged 25–45 and 21% among those aged 30–45. Furthermore, according to some descriptions, sugar daddies are often in their 40s or 50s;<sup>20</sup> our sample does not include considerably older adult men, among whom the proportion of sugar daddies could be higher.

### Asymmetric Partnerships and Condom Use

The second part of our analysis investigates associations between condom use at last sexual intercourse and partnership categories and asymmetries. Table 3 presents the results of bivariate analyses using chi-square tests. In general, condom use at last sexual intercourse was less common in relationships that involved age and economic asymmetries—either alone or combined—than in other partnerships; however, most differences were not significant.

Table 4 presents the results of logistic regression models assessing relationships between condom use at last intercourse and our three partnership categories. Models 1 and 2 use different measures of the female partner's age. The results reveal that sugar daddy "other" partnerships were more likely to have included condom use at last sexual intercourse than sugar daddy partnerships (odds ratios, 2.6 for both models); the difference was significant only in Model 2. In additional regressions, we collapsed sugar daddy "other" and non-sugar daddy partnerships into one category to isolate the effect of sugar daddy partnerships. We found condom use to be marginally significantly more likely in this group than in sugar daddy partnerships (1.8—not shown). To compare condom use between sugar daddies and non-sugar daddies, we collapsed sugar daddy and sugar daddy "other" partnerships and found them not to be sig-

**TABLE 3. Percentage of recent nonmarital partnerships in which a condom was used at last sexual intercourse, by selected measures of age and economic asymmetries**

Measure	%
<b>Partnership categories</b>	
Sugar daddy	39.3
Sugar daddy "other"	60.5
Non-sugar daddy	50.1
<b>Age asymmetries</b>	
<5 yrs. older	52.1
≥5 yrs. older	48.2
<10 yrs. older*	51.3
≥10 yrs. older	42.2
≤0 yrs. older**	65.7
1–4 yrs. older	49.9
5–9 yrs. older	50.4
≥10 yrs. older	42.2
<b>Material assistance</b>	
None	48.8
Any	50.4
≤mean	50.4
>mean (Ksh 608)	48.5
Ksh 0	48.8
Ksh 1–200	51.6
Ksh 201–700	50.8
≥Ksh 701	48.0
<b>Adolescent partner</b>	
Yes	48.8
No	51.1

\*p<0.05. \*\*p<0.01.

nificantly different than non-sugar daddy partnerships. Taken together, these findings suggest that men who are sugar daddies are not more risky than other men with nonmarital sexual partnerships. However, sugar daddy partnerships are the least likely to involve condom use.

Male partner's education level was positively and significantly associated with condom use in both models: The odds of condom use increased by 20% with each additional year of education. Other studies have found a similar association, and educated populations in Africa appear to have modified their sexual behavior in response to condom promotion and other prevention campaigns related to HIV/AIDS.<sup>21</sup> Male partner's income was not associated with condom use in either model.

The variables for female partner's characteristics showed interesting results. First, neither the dichotomous nor the continuous measure of female partner's age was significantly associated with condom use. This finding runs contrary to the view that adolescent women are at particularly high risk for unsafe sexual behavior.<sup>22</sup> Second, partnerships with commercial sex workers were significantly more likely than other relationships to have involved condom use at last intercourse (odds ratios, 3.9 and 4.0). Numerous studies of commercial sex workers in Africa have revealed increasing levels of condom use, which may be attributable to HIV/AIDS interventions.<sup>23</sup> Our conversations with commercial sex workers suggested a similar response in Kisumu. It is also notable that

the difference between sugar daddy and sugar daddy "other" partnerships was at least marginally significant even when we controlled for commercial sexual relationships. Thus, the increased condom use associated with sugar daddy "other" partnerships cannot be explained by the fact that many of these partners may have been commercial sex workers.

Both models revealed a significant decrease of 1% in the odds of condom use for every additional month of relationship duration. This finding is supported by results of other studies,<sup>24</sup> which indicate that as partners know each other longer, trust increases and condom use decreases.

Our second set of models is presented in Table 5 (page 12); here, sugar daddy partnership dummy variables are replaced with variables that independently measure age and economic asymmetries. Individual control variables for male partner's education and income, whether the female partner was a commercial sex worker and partnership duration are included in the models but not reported in the table, because their coefficients and significance levels are essentially the same as those in Table 4.

Model 1 includes the measures that capture the smallest age and economic asymmetries we calculated: an age difference of five years or more compared with a difference of fewer than five years, and the occurrence of any material assistance compared with none. Assistance of any value was negatively and significantly associated with condom use (odds ratio, 0.8), but age asymmetry was not. In addition, the dichotomous variable for an adolescent female partner was nonsignificant in these models.

Model 2 includes the larger age and economic asymmetries that form the primary definition of a sugar daddy in this study. Our analysis indicates that partnerships displaying an age difference of 10 years or more were not significantly less likely to have involved condom use at last

**TABLE 4. Odds ratios from logistic regression analyses examining relationships between condom use at last sexual intercourse and sugar daddy partnership categories and selected characteristics**

Characteristic	Model 1	Model 2
<b>Partnership categories</b>		
Sugar daddy (ref)	1.00	1.00
Sugar daddy "other"	2.61†	2.63*
Non-sugar daddy	1.73	1.72
<b>Duration of partnership (mos.)</b>	0.99**	0.99**
<b>Respondent</b>		
Education (yrs.)	1.20***	1.20***
Income in last month (Ksh)	1.00	1.00
<b>Female partner</b>		
<b>Adolescent</b>		
No (ref)	1.00	na
Yes	0.96	na
Age	na	1.00
<b>Commercial sex worker</b>		
No (ref)	1.00	1.00
Yes	3.90***	4.00***

\*p<0.05. \*\*p<0.01. \*\*\*p<0.001. †p≤.10. Note: ref=reference category.

**TABLE 5. Odds ratios from logistic regression analyses examining relationships between condom use at last sexual intercourse and age and economic asymmetries**

Characteristic	Model 1	Model 2	Model 3
<b>Age asymmetries</b>			
<5 yrs. older (ref)	1.00	na	na
≥5 yrs. older	0.91	na	na
<10 yrs. older (ref)	na	1.00	na
≥10 yrs. older	na	0.74	na
≤0 yrs. older (ref)	na	na	1.00
1–4 yrs. older	na	na	0.70
5–9 yrs. older	na	na	0.70
≥10 yrs. older	na	na	0.53*
<b>Material assistance</b>			
None (ref)	1.00	na	na
Any	0.76*	na	na
≤mean (ref)	na	1.00	na
>mean	na	0.78†	na
Ksh 0 (ref)	na	na	1.00
Ksh 1–200	na	na	0.83
Ksh 201–700	na	na	0.80
≥Ksh 701	na	na	0.61**
<b>Adolescent partner</b>			
No (ref)	1.00	1.00	1.00
Yes	0.96	0.94	0.97

\*p<.05. \*\*p<.01. \*\*\*p<.001. †p≤.01. Notes: ref=reference category. All models control for male partner's education and income in the last month, whether the female partner was a commercial sex worker, and duration of partnership.

sexual intercourse than partnerships with a smaller age difference. There was a marginally significant, negative relationship between condom use and an amount of assistance that exceeded the mean.

Finally, Model 3 includes categorical variables for age differences and exchange. Partnerships involving age differences of 10 years or more were significantly less likely to have involved condom use at last sexual intercourse than partnerships in which there was no age difference or the female partner was older (odds ratio, 0.5). Smaller age differences were not significantly different from the reference category with respect to condom use.

The largest category of material assistance was significantly associated with decreased odds of condom use: Relative to partnerships in which no assistance was given, those in which the value of assistance was greater than Ksh 701 had 39% lower odds of condom use at last sexual intercourse. The smaller exchange categories were not significantly different from the reference category. These results indicate that the largest asymmetries are driving the significant patterns across age and economic asymmetries that were reported earlier. This underscores the importance of disaggregating the levels of age differences and material assistance to account for nonlinearities in relationships between asymmetries and condom use.

**CONCLUSIONS**

This article examines age and economic asymmetries as particular types of power differentials within nonmarital sexual relationships. The combination of these asymme-

tries in a single partnership has been labeled “the sugar daddy phenomenon” in Sub-Saharan Africa. Using data from urban Kenya, we investigated whether sugar daddy relationships are as widespread and as risky as commonly believed, and if age and economic asymmetries are independently linked to decreased condom use.

Several of our results contest common perceptions. First, our findings reveal that the sugar daddy phenomenon may not be as widespread as generally assumed. Although the sugar daddy is a familiar stereotype, a small minority of men in Kisumu fit our primary definition. Moreover, because definitions of sugar daddies vary, we have attempted to provide an array of prevalence rates of sugar daddies and their partnerships in one urban African population. We should also note that sexual behavior may be different in Kisumu than in other cities. Nevertheless, it is interesting to find such a low prevalence of sugar daddies and sugar daddy partnerships in a setting where the rate of HIV infection is so high.

Second, it is commonly believed that one major reason female adolescents are vulnerable within sexual relationships is their inability to insist on condom use. However, our results show that men's partnerships with adolescents do not necessarily entail lower levels of condom use than their partnerships with older women. We found that condom use is linked to the age difference between partners, not the age of the female partner. This implies that adult women who partner with much older men may be exposed to greater risk than previously thought.

However, our findings do support the common perception that sugar daddy partnerships can pose serious health risks for women, as gauged by the decreased probability of condom use. Interestingly, sugar daddies reported safer behavior in partnerships that did not include both age and economic asymmetries. In sum, it appears that sugar daddies do not practice unsafe sex with all of their partners, but mostly in those partnerships that combine large age and economic disparities.

Our results also show that age and economic asymmetries occur in greater proportions independently than combined in sugar daddy partnerships. Large age differences between sexual partners and relatively large amounts of exchange are frequent occurrences in Kisumu. We also conclude that age and economic asymmetries are independently related to risk behavior. In particular, the largest age and economic asymmetries are associated with the lowest probabilities of condom use. Past studies have yielded similar conclusions about the positive association of age differences between partners with HIV infection and unsafe sexual behavior.<sup>25</sup> However, this study is the first to show statistically that the amount of assistance is linked to unsafe behavior within sexual partnerships.

Overall, our findings provide evidence that sexual behavior is an outcome dependent on the characteristics of both partners and the differences between them. Sugar daddies do not appear to make choices regarding sexual behavior independently of their partners. They are more like-

ly to use condoms in partnerships where women are closer in age and receive less material assistance. In sum, when women have greater relative power—measured by smaller age differences and receipt of less material assistance—condom use is more probable.

These results have implications for policies and programs. The emphasis on “the sugar daddy phenomenon” as a major health concern is without doubt overstated. Continued focus on stereotypical sugar daddies and their adolescent victims may deflect attention from more common age and economic asymmetries, and may cause many women to deny that their relationships involve any risk at all. One approach is to encourage women of all ages to recognize the potential risks associated with their sexual relationships, particularly those that entail large asymmetries. A second opportunity involves increasing women’s relative power by improving negotiating skills; increasing access to education, employment and information; and decreasing women’s reliance on material assistance. Finally, future research and programming should focus on men and their responsibility for unsafe behavior in asymmetric sexual partnerships.

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## RESUMEN

**Contexto:** Las relaciones con los “sugar daddies,” hombres amantes maduros y ricos que mantienen relaciones con jovencitas, presentan grandes asimetrías de edad y de ingresos, lo cual constituye un importante factor de diseminación del VIH en el África Subsahariana. Es necesario disponer de información sobre estas relaciones—y acerca de las asimetrías económicas y de edad—para determinar su generalización y evaluar su relación con respecto a un comportamiento sexual inseguro.

**Métodos:** La muestra incluyó a 1.052 hombres de 21–45 años que fueron entrevistados en Kisumu, Kenya, en 2001. Los datos sobre estos hombres y sus 1.614 parejas recientes con las cuales no estaban casados fueron analizados para calcular la prevalencia de los casos de “sugar daddies” y las relaciones de “sugar daddies,” así como la prevalencia de una amplia gama de disparidades de edad y de nivel económico entre las parejas no casadas. Se crearon modelos de regresión logística para evaluar las relaciones entre el uso del condón durante el último coito y varias medidas de asimetría etaria y económica.

**Resultados:** El promedio de diferencia de edad de las parejas sexuales no casadas fue de 5,5 años y el 47% de las mujeres eran adolescentes. El 14% de las parejas presentaban una diferencia de edad de por lo menos 10 años y el 23% representaron más de la cantidad media de asistencia material que proporciona el hombre a la mujer en una relación íntima. Los hombres que indicaron que tenían por lo menos una relación con ambas características fueron definidos como “sugar daddies,” y éstos ascendían al 5% de la muestra; las relaciones con “sugar daddies” constituyeron el 4% de las relaciones. Las relaciones de “sugar daddies” y las más elevadas asimetrías de edad y económicas estuvieron asociadas con una menor probabilidad del uso del condón.

**Conclusiones:** Si bien las relaciones de “sugar daddies” no están tan difundidas como generalmente se asume, las asimetrías de edad y económicas de las parejas no casadas son relativamente comunes. Estas asimetrías están relacionadas con el no uso del condón. Si se incrementa el poder de las mujeres que mantienen relaciones sexuales asimétricas se podría mejorar su capacidad para negociar con su pareja un comportamiento sexual más seguro, como por ejemplo el uso del condón.

## RÉSUMÉ

**Contexte:** Les relations de type «sugar daddy», caractérisées par d'importantes dissymétries d'âge et de ressources économiques entre les partenaires, sont souvent considérées tel un

facteur majeur de propagation du VIH en Afrique subsaharienne. Ces relations—et, plus généralement, ces dissymétries—doivent être documentées afin de déterminer leur fréquence et leur association ou non avec les comportements sexuels à risques.

**Méthodes:** L'échantillon compte 1.052 hommes de 21 à 45 ans interviewés à Kisumu (Kenya) en 2001. Des modèles de régression logistique ont été élaborés pour évaluer les rapports entre l'usage du préservatif aux derniers rapports sexuels et diverses mesures de dissymétrie d'âge et de ressources économiques.

**Résultats:** La différence d'âge moyenne entre les partenaires sexuels non conjugaux s'est avérée de 5,5 ans, tandis que 47% des partenaires féminines étaient adolescentes. Dans 14% des relations, la différence d'âge était d'au moins 10 ans et, dans 23%, la relation impliquait plus que la moyenne d'assistance matérielle de l'homme à la femme. Les hommes ayant déclaré au moins une relation combinant ces deux caractéristiques ont été définis comme «sugar daddies», représentant 5% de l'échantillon. Ce type de relation représentait 4% des relations. Les relations de type «sugar daddy» et les plus grandes dissymétries d'âge et de ressources économiques se sont révélées associées à une probabilité moindre d'usage du préservatif.

**Conclusions:** Bien que les relations de type «sugar daddy» ne soient pas aussi répandues qu'on le croirait généralement, les dissymétries d'âge et de ressources économiques des relations non conjugales sont relativement courantes. Tous ces types de dissymétries sont associés au non usage du préservatif. Une plus grande autonomisation des femmes au sein des relations sexuelles dissymétriques pourrait améliorer leur aptitude à la négociation de comportements sexuels plus sûrs tels que l'usage du préservatif.

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