VULNERABILITY TO HIV: YOUNG GIRLS AND THEIR PERCEPTIONS

Abstract

HIV / AIDS is a phenomenon that is usually discussed in the context of prevention and treatment. In the field of prevention, the literature points to the existence of several factors that expose mainly women and girls to a high risk of acquiring the virus. In addition to biological and psychological factors, girls' vulnerability is exacerbated by social, economic and cultural factors, especially when inserted in socio-cultural contexts, where the relationship between both sexes is marked by inequality and lack of information. The study was carried out by researchers at the Catholic University of Mozambique as part of a project funded by PEPFAR (the U.S. President's Emergency Plan for AIDS Relief). The study approach was quantitative and involved 281 girls, 13 to 21 years old (20% of whom were orphans), from three secondary schools in Chimoio, in central Mozambique. The survey measured the level of vulnerability of the stakeholders and found that only 6% have satisfactory resilience, while 94%, to varying degrees, can be considered vulnerable and, per se, exposed to the risk of HIV-AIDS infection. The results revealed weaknesses in the quality of the girls' knowledge about infection and gender equality, as well as the existence of risk behaviors related to an active, early and intergenerational sex life. Additionally, it was found that both girls who feel they have no one to talk to about sexuality, and those who are orphans, have a higher vulnerability index, possibly due to a precarious social condition.

Keywords: HIV, Vulnerability, Girls, Orphans

Acknowledgements:

Special thanks to the secondary schools for openness and collaboration and, above all, to the girls who were willing to complete the survey.

Thanks to PEPFAR (the U.S. President’s Emergency Plan for AIDS Relief) for funding the Project.
INTRODUCTION

Studies on vulnerability in relation to HIV/AIDS have been distinguished by their importance in terms of disease prevention as they permit us to assess the probability that each person or each group has to protect themselves from infection in a comprehensive and dynamic way. That is, embracing not only the analysis of epidemiological or individual aspects, but also aspects of a social, cultural or programmatic (political-institutional) nature (Takahashi, De-La-Torre-Ugarte-Guanilo, 2011; Bezerra, Chaves, Pereira & Melo, 2012; Estavela & Siedl, 2015; Maünge, 2015; Maia & Reis Junior, 2019).

The present study seeks to assess the degree of vulnerability of girls, with a focus on adolescents, since this stage of their development is characterized by a greater motivation for new experiences, challenges and risks. Before 2011, about 25% of adolescents between the ages of 15 and 19 had already started their sexual activity, 5% married and 20% pregnant (Doyle et al., 2012). All these aspects, with a higher incidence in rural adolescents and girls without access to education (INS, INE & ICF Macro, 2010; Doyle et al., 2012). A few years later, the epidemiological picture remains far from encouraging. According to the survey of indicators on Immunization, Malaria and HIV/AIDS (IMASIDA) 2015 (Ministry of Health [MISAU], INE & ICF Internacional, 2016), 46% of adolescents within this age group, are pregnant or have already had one child. Compared to the rest of Sub-Saharan African countries, Mozambique emerges as the second country with the highest rate of girls (75%) who had their first sexual intercourse before 18 (below Liberia) and before 15 (25%) (below Chad) (data for the period 2013 to 2017) (UNICEF, 2018).

Alongside the above-mentioned objective, the study also seeks to assess the existence of differences in vulnerability between orphaned and non-orphaned adolescent girls. Orphanhood is also a focus of vulnerability insofar as it has associated limitations on access to basic living conditions such as food, health care, protection, education and housing. UNICEF (2006) estimated, already 11 years ago, that there were more than 1.6 million orphans out of 10 million Mozambicans under the age of 18, more than 20 percent, as a result of AIDS and warned of a significant trend in increasing these numbers. The Demographic and Health Survey (IDS), which covered the period 2003 and 2011, confirmed that the percentage of children who are orphans, from one or both parents, increased by approximately one third, from 10% to 13% and that they are, especially orphans, particularly vulnerable to educational deprivation (UNICEF, 2014).

Both the epidemiological data and the results of the set of scientific investigations carried out around HIV/AIDS, justify the investment in studies on vulnerability in women. The global number of infections is high, with a higher incidence in women, and it is extremely relevant to deepen understanding of the reasons for this discrepancy, as well as the knowledge around holistic preventive approaches, which are not limited to the clinical aspects of the disease.

THEORETICAL-CONCEPTUAL FRAMEWORK

The concept of vulnerability in the context of public health should be understood as referring to the situation of fragility that some people and groups face in a situation according to three fundamental dimensions: individual, social and programmatic. Individual vulnerability is related to the individual’s access and ability to process information about health and prevention, which vary according to their values and beliefs and their knowledge of protection practices and the possibilities of applying that knowledge to protective practices. Social vulnerability concerns the collective and social conditions that influence individual and programmatic vulnerability, such as living and working conditions, gender, generational class relations, among others. And, programmatic or institutional vulnerability refers to public policies and how institutions are organized and committed to preventive and educational actions. As this situation of fragility is not limited to the essence of some people or groups, but to more comprehensive conditions and circumstances, which can be reversed, it is understood that the possibilities of being infected and acting preventively are different between countries, regions, groups or individuals (Fundação Faculdade de Medicina [FFF], 2013; Maia & Reis, 2019).

Women are one of the groups that national and international literature points out as being highly vulnerable to HIV, especially in the context of disadvantaged circumstances (Patrão, McIntyre & Costa, 2015; UNICEF, 2018), which means, therefore, that there is a set of conditions from a cultural, socioeconomic and political point of view,
overlapped with biological and psychological factors that make them more susceptible to infection (Taquette, 2009, cited by Maúngue, 2015).

Epidemiological data in Mozambique are very clear. HIV/AIDS has a mostly female and young face. There is a disproportionate probability of infection of women in relation to men, which is three times greater in the age group of 15 to 24 years old (National Council for Combating HIV and AIDS [CNCS], 2015, p.11), which remains, despite of a slight decrease in new infections in both sexes, as found in the report on the rapid assessment of the national HIV response in adolescents (CNCS, 2017). In Sub-Saharan Africa, by June 2019, four out of five new infections in adolescents (15-19) occurred in girls, and women between the ages of 15 and 24 are characterized as twice as likely to live with HIV than men (UNAIDS, 2019). The latest data from the World Health Organization (WHO), referring to 2018, place the total number of infected women in Mozambique (over the age of 15) at 1.2 million (WHO, 2019), a number considerably higher than that of men (under a million).

A first aspect to be taken into account as placing women in a situation of vulnerability is the state of ignorance. Studies indicate that the level of knowledge that the young female population has in Africa about HIV (ways of infection, ways of prevention) is below 40% and in the specific case of Mozambique only 20% is able to recognize the measures prevention, compared to 33% of the male population (Patrão, McIntyre & Costa, 2015).

The proliferation of beliefs in African culture that having sex with a young virgin eliminates the virus and that AIDS is not fatal and can be cured in a traditional way (via healers) also has a harmful effect on the behaviors adopted (Boss, McIntyre & Costa, 2015). Another factor considered to aggravate women's vulnerability is related to the relational context of devaluation, submission and dependence on men.

Studies indicate that women are not prepared to negotiate condom use or even address issues related to their sexuality with the partner, both in terms of pleasure and reproduction, sometimes for reasons of economic dependence on the partner, sometimes because of customs and traditional cultural practices (polygamy, premature marriages, initiation rites, rituals for the purification of widows - kupita kufa) (Maúngue, 2015; Patrão, McIntyre & Costa, 2015). According to Maúngue (2015), both in patrilineal and matrilineal communities, women are in subordinate positions; they can be key elements, but constrained in their decision-making power, in their economic, social and labor activity, in access to resources, and in their freedom of action.

Intergenerational sex is also an aspect of special relevance in this context. It is identified as a significant cause of the high prevalence of the disease in women, as it exposes them more to infection, without negotiating power (Bagnol & Chamo, 2004; Leclerc-Madlala, 2008; UNAIDS, 2008; UNICEF, 2018).

In Mozambique, the National Survey on Prevalence, Behavioral Risks and Information on HIV and AIDS (INSIDA) 2009 (National Institute of Health [INS], National Institute of Statistics [INE] & ICF Macro, 2010), revealed that 2% of women, aged 15-19, expressed having had sex with a partner at least 10 years older, in the 12 months prior to the survey. In sub-Saharan African countries, this percentage was estimated between 2 and 6% (Doyle, Mavedzange, Plummer & Ross, 2012). More recent data, based on surveys completed between 2013 and 2017, place this percentage at 11% (UNICEF, 2018).

The authors Nkosana and Rosenthal (2007) identify two main reasons that lead girls to this type of practice. One is the poverty that is manifested by the lack of access to education, health, employment. In this case, adolescents feel compelled or coerced to become involved with older men. Another cause is the desire to use your own desirability to obtain economic benefits through money, luxury or fashion gifts to support a modern lifestyle. This reason is also corroborated in several other studies and programs such as Bagnol and Chamo (2004), Joint United Nations Program on HIV/AIDS (UNAIDS, 2005), UNICEF (2018), where these older men sometimes appear referred to as “sugar daddies”.

**METHODOLOGY**

The methodological approach of this study is quantitative and exploratory. The cross-sectional study was conducted in 2016 in Chimoio, Central Mozambique, covering 281 teenage girls from three secondary schools, aged between 13 and 21 years old, with an average age of 15.81 and a standard deviation of 1.6.

In addition to sex and age, the inclusion criteria for the study were that participants were in the ninth and tenth grade, and the informed and informed participation in relation to the study.
A structured questionnaire with closed questions was used, mostly with a Likert-type scale of four points (in order to verify the level of agreement of the individual with a proposition that expresses something favorable or unfavorable in relation to an object), whose content was about perceptions and attitudes around the following main themes: means of contamination and prevention, power relationship between men and women, intergenerational sex and the position of women in society.

All respondents to the questionnaire participated in the awareness program that the Catholic University of Mozambique carried out under the PEPFAR program (The U.S. President’s Emergency Plan for AIDS Relief).

The study tested a main directional hypothesis: \( H_1: \beta \) Adolescent girls have a high level of vulnerability to HIV/AIDS and a secondary hypothesis: \( H_2: \beta \) Orphaned girls are more vulnerable than girls living with their families.

Statistical analyzes were performed using the Statistical Package for the Social Sciences (IBM SPSS) software. The authors performed descriptive and inferential analyzes, using the former for the purpose of characterizing the vulnerability index and determining possible links between the variables under study. To measure the vulnerability index, four different degrees of assessment were determined: non-vulnerable, slightly vulnerable, moderately vulnerable and very vulnerable. Inferential analyzes were conducted based on correlation tests (Pearson and Spearman test) and differences (T test), in order to confirm/disprove the secondary hypothesis. The pre-defined level of statistical significance was \( p < 0.05 \).

RESULTS AND DISCUSSION

The results obtained regarding the index or degree of vulnerability of adolescent girls reveal that only 6% of the girls in the study show some resilience to the risks associated with HIV infection and gender-based violence. The rest (94%) are at risk, with 15% showing a very significant vulnerability index (Figure 1).

Figure 1: Vulnerability index of adolescents (N=281)

For a more accurate analysis of the nature of this vulnerability, three dimensions interwoven with the evidence found in the literature on the personal and social aspects that arise related to a greater vulnerability to infection were determined: knowledge about the infection and preventive attitudes; submission and dependence on the male gender; and, intergenerational sex.

Table 1 shows the identification of the final items that made up these three dimensions, as well as the percentages obtained based on the sum of the response options that indicate vulnerability.
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Variables in study</th>
<th>Vulnerability (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge</strong></td>
<td>Most of the girls my age don’t know what a sexually transmitted disease is.</td>
<td>54.8</td>
</tr>
<tr>
<td></td>
<td>If we kiss someone who has HIV/AIDS we can become infected.</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>HIV can be transmitted by mosquito bites.</td>
<td>24.6</td>
</tr>
<tr>
<td></td>
<td>The contraceptive pill protects me from pregnancy and HIV.</td>
<td>43.4</td>
</tr>
<tr>
<td></td>
<td>I don’t think there is any reason to use a condom if I know my partner well</td>
<td>34.8</td>
</tr>
<tr>
<td></td>
<td>During sex, if we do it little bit and then withdraw the penis there is no risk.</td>
<td>50.4</td>
</tr>
<tr>
<td><strong>Submission to masculine power</strong></td>
<td>The person who decides if we should use a condom during sex is the boy, not the girl.</td>
<td>34.2</td>
</tr>
<tr>
<td></td>
<td>Imagine if a husband or boyfriend is hitting his wife or girlfriend. This situation is justified because maybe the woman has behaved badly and has offended the man.</td>
<td>33.8</td>
</tr>
<tr>
<td></td>
<td>I would accept if my boyfriend asks to have sex because it is proof of love.</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>The job of the woman at home is to have children and carry out all the domestic work to make sure everyone lives together without conflict.</td>
<td>39.6</td>
</tr>
<tr>
<td><strong>Intergenerative Sex</strong></td>
<td>There are many girls of my age who date older men.</td>
<td>83.6</td>
</tr>
<tr>
<td></td>
<td>A relationship with an older, richer man brings many benefits for the girl.</td>
<td>28.5</td>
</tr>
<tr>
<td></td>
<td>One of the most frequent reasons for a girl to date an older man is to have a sense of distinction among her friends</td>
<td>37.7</td>
</tr>
<tr>
<td></td>
<td>It’s a good idea to date an older man who can offer me presents in return for sex.</td>
<td>13.1</td>
</tr>
<tr>
<td></td>
<td>One of the most frequent reasons for a girl to date an older man is the lack of money.</td>
<td>70.1</td>
</tr>
</tbody>
</table>

The responses demonstrate that girls do not have enough information about sexually transmitted diseases (STDs). This can be seen by taking into account: their own perception in this regard (54.8%); the existence of cases that consider HIV transmissible by kissing (45%) or mosquito bites (24.6%); and the high risks of infection to which they
are subject due to lack of knowledge about the effects of taking the pill (50.4%) and disregarding the consequences of an “interrupted intercourse” (43.4%) without using a condom. These results are in line with the study by Patrão, McIntyre & Costa (2015), which considers that only 20% of the female population has adequate knowledge regarding the prevention of HIV/AIDS.

In the dimension that addresses issues of submission and dependence in relation to the power of the male gender, 39.6% of the respondents consider that women can avoid conflicts in the home by performing their domestic tasks well and 33.8% consider that violence against a woman is justified. A considerable number of adolescent girls show that they believe that the authority and power of men are superior to that of women.

The third grouped dimension, under the name intergenerational sex, shows some worrying results. Most respondents (83.6%) believe that many girls date older men and 70.1% consider lack of money as the reason for this risky behavior. This result is in agreement with the study by Nkosana and Rosenthal (2007).

However, it should be noted that, researchers believe that this high perception of the phenomenon may occur due to the cultural factor, which, in fact, sanctions relationships between older men and younger girls. As for the reasons behind this behavior, although the main motivation appears to be the lack of money, research has shown that it cannot be dissociated from the level of moral education inside and outside the family and from the crisis of values.

In addition to the grouping of these items, exploratory analyses made it possible to find results in relation to aspects of girls’ perception of dating and sexuality, which seem to be worthy of attention and which are shown in Table 2.

### Table 2: Item by item analysis of vulnerability variables (in %), in isolation (N = 281)

<table>
<thead>
<tr>
<th>Variables in study</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The most important thing for a girl of my age is to have a boyfriend with whom I can enjoy free time with and receive presents.</td>
<td></td>
</tr>
<tr>
<td>I don’t have anybody that I feel comfortable with to talk about sexuality.</td>
<td></td>
</tr>
<tr>
<td>Most of the girls my age have already had sexual relations.</td>
<td></td>
</tr>
</tbody>
</table>

The study reveals that the majority of the girls surveyed (51.6%) conceive of dating as enjoyment and perceive the beginning of sexual activity as frequent in their age group (83.2%). These data are in line with government reports, which report that girls in Mozambique become involved in sexual relations very early.

Another important fact is that 52.3% of girls live relatively isolated, that is, without an adequate and constructive forum where they can talk about the problems related to their sexuality, alerting to a gap in terms of family and school education and ignorance or ineffectiveness of some of the city’s counseling points.

Among the correlational analyzes carried out, a significant association can be found between the degree of vulnerability and the lack of a support network around the girl that favors the discussion of these themes (r_s = 0.14, p = 0.022). This means that the adolescents who feel most without social support to be able to talk about sexuality, are the ones who reveal the highest degree of vulnerability.

After discussing the results related to the directional hypothesis, we proceed to the interpretation of data on the secondary hypotheses.

To guarantee homogeneity in the study group, the universe of respondents was reduced to 106 (53 orphans and 53 non-orphans). That said, it was found that there are significant differences between orphaned and non- orphaned girls with regard to vulnerability (t (104) = - 2.20, p = 0.030), with the former being more vulnerable than the latter.
These data prove to be important because they demarcate, in fact, this group as especially vulnerable, even when we are facing a universe of girls who live close to the city and are framed at school level. This draws attention to the fact that vulnerability in orphans takes on more serious features which are not solved only by access to education.

CONCLUSION

The high level of ignorance of girls in relation to different aspects related to the prevention of HIV/AIDS (both in terms of protection, transmission of infection and safe sexual practices), associated with the confirmation of a general perception of their own that the beginning of sexual activity should occur in the adolescence or pre-adolescence phase, places these adolescents at a high risk level for infection and spread of the disease, stressing the need to adopt measures that provide them with greater knowledge and security to manage their sexuality.

It is also evident that the preventive measures, particularly among the adolescent public, must be broad and include the discussion of social and cultural aspects, since there are gender representations that confine greater power to the male figure in the relationship.

An aspect that emerges, equally relevant, is the finding that most girls do not have someone with whom they feel safe to clarify issues related to their sexuality and the significant way in which this seems to be associated with greater vulnerability. This suggests the intensification of measures to promote spaces for this purpose. It would be important to assess how educational and health facilities can promote access to safe and regular information and support and counseling services for adolescents and young people; measure the impact of greater flexibility in terms of time (without appointment, for example) and breadth (in person, but also through mobile helplines and online platforms); assess whether the principles of confidentiality and privacy are properly ensured in this type of interventions; and perceive with the communities their sensitivity to the multiple and evolving needs of adolescents (including the need for social support and clarification on sexuality, gender and rights, in appropriate forums).

Given the high percentage of girls who perceive intergenerational relationships as frequent (couples who engage with older individuals), it would also be important to assess, more rigorously, the dimension and dynamics of this phenomenon.

With regard to orphans, it could be confirmed that we are facing a particularly vulnerable group, demanding that specific supportive pragmatic measures be taken and investigations reinforced in order to deepen the nature and dimension of the risk they are in.

From a social and programmatic point of view, this requires investing in the study of programs focused on creating or strengthening social support / protection networks for orphans (network of caregivers, counselors, among others) and promoting their participation and involvement in activities and interest groups where these topics can be discussed.

REFERENCES


