

**Proceedings of the 13th International Conference on
Private Higher Education in Africa**

Organized by:

**The Research and Knowledge Management Office
(RaKMO) of**

St. Mary's University (SMU)

24 August 2015

UNECA Conference Center

Addis Ababa, Ethiopia



Integration of Sexual and Reproductive Health and HIV Prevention into the Curriculum: Case Study of the Catholic University of Mozambique

Prof. Hemma Tengler, PhD HIV Advisor

Abstract

Acknowledging the importance of a holistic model of education centered on the needs of its students and recognizing its Christian obligation to foster social justice, health and gender equality, the Catholic University of Mozambique (UCM) approved three policies, namely the HIV&AIDS policy (2008), the Sexual Harassment policy (2008) and the Gender Policy (2014). In 2012, the Catholic University of Mozambique introduced a discipline with 3 academic credits on HIV, sexual and reproductive health, gender and life skills which is part of the curriculum of every course. The Catholic University currently has 20.000 students, all of whom attend this discipline during their first year of study. It is the only tertiary education institution in the country that has developed a curriculum for comprehensive sexuality education.

This paper characterizes the curriculum development and implementation process of the discipline. It is based on the study of documents like workshop reports, didactic material and monitoring reports and on two surveys conducted in 2014 to collect opinions of lecturers and students on the methodology and content of the discipline. Lecturers were also consulted in a focus group discussion.

Results: The process of developing the curriculum was facilitated by experts and involved university chaplains, lecturers and students. The curriculum itself has clearly defined goals and objectives, activities and a clear methodological approach. The implementation process was characterized by initial capacity building workshops of 30 lecturers and monitored through semestral monitoring visits.

Lecturers and students who responded to the survey recognized the importance of the comprehensive sexual education discipline. Students emphasized the relevance of the issues addressed in the lessons for their future lives, health, mutual respect of partners and responsible sexual behavior. They stated that the discipline prepared them for responsible and equitable relationships and provoked attitude and behavior changes. The teaching methods that privileged participatory methods like the discussion of stories, case studies, role plays and self-assessment exercises were highly appreciated by students and lecturers alike. Given the importance of the subject, lecturers proposed an increase of lesson time from two to four hours per week.

The Sexual and Reproductive Health and HIV Prevention Discipline introduced by the Catholic University in all academic courses bears all of the necessary



Proceedings of the 13th International Conference on Private Higher Education in Africa, August 2015

characteristics of effective programmes of comprehensive sexuality education: the participatory process of curriculum development, a well-designed curriculum and capacity building and monitoring during implementation. Acceptance and outcome of the discipline show that the Catholic University distinguishes itself as a tertiary education institution that contributes to improving health and social wellbeing of its students.

Keywords: Curriculum development, comprehensive sexuality education (CSE), HIV prevention, Life skills, logic model



1. Introduction

The Catholic University of Mozambique (Universidade Católica de Moçambique, in the article referred to as UCM) was founded in 1995 as the first university in Mozambique with headquarters outside Maputo to facilitate access to tertiary education and balance education inequalities in the central and northern provinces of the country which had been hit very hard by the country's civil war.

UCM currently runs 9 different faculties, one delegation, one extension and the Centre of Distance Learning at 9 different locations in the centre and north of Mozambique. In 2014 it offered 57 undergraduate and 27 post-graduate courses to approximately 20.000 students, thus being a major private higher education institution in the country.

As a part of its mission to contribute to the social development of the country and of its corporate social responsibility, the institution approved an HIV and AIDS policy and a Sexual Harassment policy in 2008 and in 2014 a Gender Policy. HIV and AIDS activities on campus started in 2004, expanded to all faculties and reached out to communities and schools in the course of the years, integrating sexual and reproductive health and gender.

The commitment of UCM to health promotion, gender equality and a discrimination-free academic environment manifested itself in the approval of three policies: the HIV&AIDS policy of 2008, the Sexual Harassment Policy of 2009 and the Gender policy in 2014.

The present study investigated the curriculum development process, implementation and outcomes of the integration of Comprehensive Sexuality Education and HIV prevention in the curriculum. After the discussion of the context and theoretical concepts underlying the study the article presents the results of a peer review of the Comprehensive Sexuality Education Discipline introduced by UCM in 2015 and discusses their implications and significance of the disciplines.

1.1 Context

The three major health problems in Mozambique are Malaria, HIV&AIDS and Tuberculosis. HIV&AIDS is the major cause of death in adults (WHO, 2014). Mozambique belongs to the ten countries in the world with the highest HIV prevalence rates. HIV&AIDS mainly affects the young and



economically active. The reduction of productivity and the burden of the disease on families, social services like health and education make HIV an obstacle to development. Most new infections occur in young people. The latest reported national prevalence rate (MISAU & INE, 2010) is 11.5% with regional differences, due to different geographical, socio-cultural and historical factors. HIV prevalence is lowest in the northern provinces of Cabo Delgado, Niassa and Nampula (average of 6%) and highest in the southern provinces (19%), followed by the central provinces of Sofala, Manica, Tete and Zambezia (12.6%). Beira, the capital of Sofala reports very high prevalence rates of 34% (CIDI, 2012).

University students are at risk of contracting HIV because of risk-taking sexual behavior in a new and liberal living environment, considerable degree of freedom, economic needs and aspirations and peer pressure. There are many links between HIV and gender. Young women are particularly vulnerable to HIV infection. According to INSIDA, HIV prevalence is higher in women (13.1%) than in men (9.2%). The prevalence of HIV is three to five times higher in young women than in young men aged 15-24 years in the provinces of Sofala, Zambezia, Maputo and Gaza. The biological factor is compounded by social, cultural and economic factors. Female adolescents are more vulnerable than young males to contract HIV due to gender inequalities, the social and economic status of women, lack of negotiating power of safe sex practices, intergenerational and transactional sex. Men are less likely to go for HIV testing and for antiretroviral treatment. However, the burden of care is shouldered mainly by women.

1.2. Sexual and reproductive health

Sexual health requires a positive approach to human sexuality and mutual respect between partners. A sexual life free from fear, shame, guilt, discrimination, and false beliefs as well as from disease, injury, coercion, violence or risk of death and constitutes the main elements of sexual health. Reproductive health implies the right of men and women to be informed of and have access to safe, effective, affordable and acceptable methods of family planning of their choice.

The reality in Mozambique poses a number of difficulties and threats to SHRH: gender relations, social norms and socio-economic factors put especially young women in a weaker position to negotiate safe sexual practices, resist coercion, refuse intergenerational and transactional sex and make decisions on their reproductive health. People with sexual



identities other than heterosexuality face discrimination and lack of health services tailored to their specific needs.

The National Health System offers testing and counselling services on HIV, STI screening, family planning and reproductive health for young people. However, they are not frequented by many young people as quality of services and attendance to the need of the youth is poor. Information, education and communication activities lack appeal to the youth and the more educated and hardly are critical of prevailing values and practices and blind to underlying social and structural causes of SHRH problems.

1.3. Issue/problem

Acknowledging the size of the HIV epidemic, its negative impact on development (UNAIDS 2006, UNAIDS 2013, Barnett & Whiteside, 2006) and its linkage with gender roles and relations, UCM has committed itself to actively contribute to HIV prevention and mitigation. Convinced that comprehensive sexuality education is an effective instrument in the promotion of health and social well-being, UCM introduced a discipline with 3 academic credits on HIV, sexual and reproductive health, gender and life skills which is part of the curriculum of every course in 2012.

The mainstreaming of HIV into the curriculum and the introduction of a module on HIV had been envisaged by the HIV&AIDS policy of 2008. The module reflects the ethic and moral values of the Catholic Church and its social teachings to foster social justice, the right to life, health and gender equality. UCM is the only tertiary education institution in the country that has developed a curriculum for comprehensive sexuality education.

The Strategic Plan 2012-2016 reiterates the commitment of UCM to gender equality and awareness raising to behavior change.

1.4. Objective of the study

The objective of the study is to assess the curriculum development and the implementation process of integrating comprehensive sexuality education and HIV prevention at UCM.

The study has these specific objectives:

- Characterize the curriculum development process of integrating sexuality education and HIV prevention into the curriculum of UCM.
- Assess the implementation of the curriculum project.



- Conduct a peer review on the outcome of the discipline, student's satisfaction, attitude and behaviour changes.

1.5. Study object

The object of the study was the curricular discipline "Comprehensive Sexuality Education and HIV prevention": the curriculum development, didactic model, content, capacity development of lecturers, acceptance and satisfaction level, criticism, attitude and behaviour change.

2. Theoretical concepts

The traditional and most common view refers to the curriculum as the collection of syllabi and study plans per discipline. The curriculum document normally contains the philosophy, goals, objectives, learning experiences, instructional resources and assessments that comprise a specific educational program and thus provides guidance to teachers of what students should know and be able to do and how to achieve these goals.

According to UNESCO (2013), in the past curricula were designed with the principal objective of cultural transmission reflecting discrete areas of knowledge. A contemporary approach to curriculum exceeds the understanding of curricula as mere study plans and lists of content and acknowledges the complexity of today's ever-changing world. In Amado & Opertti & Tedesco's perspective (2014), the curriculum reflects a political and societal agreement and provides a reference framework for learner welfare and development. The important point made by these authors is that what is selected to become part of the curriculum is a political and social rather than a technical question. According to them, the curriculum should reflect profound changes of our societies and the dilemmas and tensions faced by young people.

Conceiving the curriculum in this new way implies answering the question of the kind of values that education promotes and for what kind of society it promotes these values (IBE&UNESCO, 2013). In other words, curricula are value based. Tedesco et.al (2013) point out that there is a link between knowledge and ethical values in two ways: knowledge alone does not make people good, on the other hand, information and knowledge is required for ethically fair behaviour. There is the necessity of a synergy between cognitive, emotional and social aspects that overcomes the traditional differentiation between the cognitive and the emotional dimensions in the teaching and learning process.



Among the recent approaches to the curriculum stand out the following:

➤ *Inclusive curriculum, schools and teachers* (UNESCO-IBE, 2009):

An inclusive education system provides a diversity of students with personalized learning of high quality shared by teachers with students and opportunities to apply knowledge competently to real life problems, with an emphasis on values like freedom, solidarity, peace and justice. It requires teachers to use a holistic approach and adapt the learning process to the specific needs of the students (Tedesco et.al, 2013).

➤ *Competency-based approach* (Tedesco et. al, 2013):

In the last decades the emphasis has been moved from the necessary inputs to the outputs of the educational process. In the European Union competency is defined “a combination of knowledge, skills and attitudes appropriate to the context” (European Parliament, 2006), or referred to as the four ‘Cs’, i.e. communication, creativity, collaboration and critical thinking.

➤ *Simultaneous development of ‘soft’ and ‘hard’ skills*

Recent analyses show that the division between hard and soft sciences, or between scientific disciplines on the one side, and arts and humanities on the other, has to be overcome as obsolete and reductionist. Countries that design their curriculum on the basis of a diversity of learning experiences connected to the demands and expectations of society and to students’ motivations are making more progress in education.

Curriculum development

The development of an effective curriculum is a multi-step, ongoing and cyclical process. Several guides to Curriculum Development (Wiles & Bondi, 1984; Kern et al, 1998; Finch & Crunkilton, 1999) identify the principal components of effective curriculum development as follows:

- a. Problem identification and needs assessment
- b. Articulating and Developing: program philosophy, defining goals and objectives, content sequencing, identifying resource materials and assessment instruments
- c. Implementing: putting the program into practice
- d. Evaluating: Updating, determining the success.

Amado & Operti & Tedesco (2014) point out some new tendencies in the ongoing discussion of Curriculum Development such as:

➤ Shift in emphasis from content and input to educational results



Proceedings of the 13th International Conference on Private Higher Education in Africa, August 2015

and transferable competencies;

- Rethinking the traditional disciplinary structure of the curriculum, the organization of learning experiences, teaching methods and assessment systems;
- The relevance of the learning content to society and individuals;
- The acquisition of a set of values and life skills that strengthen citizenship;
- The need to regularly evaluate and adapt curricula to societal changes;
- Extension of participation in curriculum design processes beyond the traditional technical, academic and pedagogical contexts;
- Growing influence of transnational frameworks and international comparisons.

There are events that radically transform the world, including the world of education. According to Kelly (2000a Dec), in a world with HIV/AIDS the contents, structures and programs of education of a world without AIDS no longer suffice. Education can be a powerful ally to tackle HIV/AIDS and related areas like sexual and reproductive health and gender by helping to translate information into behaviours and social (cultural) norms that promote a healthy state of mind, body and spirit (Kelly, 2000b, Encounter).

The two major perspectives in planning for education in the context of HIV/AIDS according to Kelly (2000c, Planning) are the role of education in reducing the spread of the epidemic and the impact of the disease on education systems. The first perspective is mainly concerned with the curriculum (its content and delivery), the second is concerned mainly with organizational issues (demand and supply).

HIV prevention and mitigation is an integral part of Comprehensive Sexuality Education (CSE). Comprehensive Sexuality Education is defined as an age-appropriate, culturally relevant approach to teaching about sex and relationships by providing scientifically accurate, non-judgmental information. Sexuality education provides opportunities to explore one's own values and attitudes and to build decision-making, communication and risk reducing skills (UNESCO, 2009a:2).

The primary goal of sexuality education is that young people become equipped with the knowledge, skills and values to make responsible



Proceedings of the 13th International Conference on Private Higher Education in Africa, August 2015

choices about their sexual and social relationships which is particularly important in a world affected by HIV.

Another important concept to refer to in relation to comprehensive sexual education is the

“life skills education”. UNICEF (2003) defines life skills as “psychosocial abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life”. They can be grouped into cognitive skills, personal skills for managing oneself and inter-personal skills for interacting effectively with others. Life skills education is a structured programme of needs- and outcomes-based participatory learning that increase positive behaviour and develop the skills to minimize risk factors (e.g. HIV infection, unwanted pregnancy) and maximize protective factors (e.g. practice of protected sex). Life skills education addresses specific content, it is learner-focused and includes knowledge, skills, behaviour, attitudes and values. It is important that life skill education is delivered by competent facilitators and appropriately evaluated to ensure continuous improvement of documented results. Findings of the global evaluation of life skills Education Programmes of UNICEF (2012) show that Life Skills Education Programmes address priorities relevant to the lives of learners, that effective participatory methodologies provide a potential, social norms have an impact on the design, implementation and outcomes of life skills education (conservative norms can seriously limit adolescents’ access to reliable knowledge on sexual and reproductive health). Evidence shows that LSE has impact on developing knowledge, skills and attitudes among learners in risk areas. LSE suffers from several constraints such as a lack of standards, benchmarks and systematic monitoring and evaluation, human resources.

The questions to answer for curriculum developers are whether sexuality education programs are effective and if yes, what makes them effective. Reviews of sex and STD/HIV education programs conducted in the United States, Africa and elsewhere (Johnson, Carey et al. 2003; Robin, Dittus et al. 2004; Kirby 2007; Underhill, Operario et al. 2007, UNESCO 2009) concluded that such programs do not increase sexual behaviour and are effective in delaying the onset of sexual activity, reducing the frequency of sex and sexual partners and increase of use of condoms and contraceptives. Kirby (2009) estimates that about two-thirds of the programs had a positive impact and one third did not.



For Kirby (2009), the characteristics that distinguish the effective sexuality education programs from the ineffective ones are the use of psychological theory and research to identify the cognitive risk and protective factors that affect behaviour, the development of program activities to change those factors, clear messages about behavior and teaching skills to avoid undesired and unprotected sexual activity.

Fig 1 The 17 characteristics of effective programmes of CSE

The Process of Developing the Curriculum	The Contents of the Curriculum Itself	The Process of Implementing the Curriculum
<ol style="list-style-type: none"> 1. Involved multiple people with different backgrounds in theory, research and sex and STD/HIV education to develop the curriculum 2. Assessed relevant needs and assets of target group 3. Used a logic model approach to develop the curriculum that specified the health goals, the behaviors affecting those health goals, the risk and protective factors affecting those behaviors and the activities addressing those risk and protective factors 4. Designed activities consistent with community values and available resources (e.g., staff time, staff skills, facility space and supplies) 5. Pilot-tested the program 	<p>Curriculum Goals and Objectives</p> <ol style="list-style-type: none"> 6. Focused on clear health goals—the prevention of pregnancy and/or STD/HIV 7. Focused narrowly on specific behaviors leading to these health goals (e.g., abstaining from sex or using condoms or other contraceptives), gave clear messages about these behaviors and addressed situations that might lead to them and how to avoid them 8. Addressed multiple sexual psychosocial risk and protective factors affecting sexual behavior (e.g., knowledge, perceived risks, values, attitudes, perceived norms and self-efficacy) <p>Activities and Teaching Methodologies</p> <ol style="list-style-type: none"> 9. Created a safe social environment for youth to participate 10. Included multiple activities to change each of the targeted risk and protective factors 11. Employed instructionally sound teaching methods that actively involved the participants, that helped participants personalize the information and that were designed to change each group of risk and protective factors 12. Employed activities, instructional methods and behavioral messages that were appropriate to the youths' culture, developmental age and sexual experience 13. Covered topics in a logical sequence 	<ol style="list-style-type: none"> 14. Secured at least minimal support from appropriate authorities such as departments of health, school districts or community organizations 15. Selected educators with desired characteristics (whenever possible), trained them and provided monitoring, supervision and support 16. If needed, implemented activities to recruit and retain youth and overcome barriers to their involvement, e.g., publicized the program, offered food or obtained consent 17. Implemented virtually all activities with reasonable fidelity

Source: Kirby, D. B. (2007). *Emerging Answers 2007: Research Findings on Programs to Reduce Teen Pregnancy and Sexually Transmitted Diseases*. National Campaign to Prevent Teen and Unwanted Pregnancy: Washington DC.

A review of comprehensive sexual education programs shows that all the effective programs used a public health and logic model approach (Kirby, 2011). One form of the logic model is the behavior-determinant-intervention model, or “BDI model”.

Logic models are causal models, created in four steps in the following “logic” order:

1. Identify health goals (examples: prevention of HIV, other STIs or



pregnancy).

2. Specify potentially important behaviors that affect the health goal (cause or prevention of HIV, other STIs or pregnancy).
3. Identify determinants of the selected behaviors and target them (risk and protective factors affecting those behaviors).
4. Design activities that have sufficient strength to improve each selected determinant.

Logic models are similar to, but different from, logframe models. Logframe models typically do not identify the determinants of behaviour, but this is a strength of BDI logic models (Kirby, 2004).

According to Kirby (2004), BDI Models assume that behaviours of individuals, groups and institutions largely determine health goals and that a variety of determinants like psychological factors have an impact on these behaviours. Interventions by the curriculum cannot directly control behaviours because of individual freedom, but they can affect the determinants affecting behaviours.

The most frequently used theories and models of behavioural change are of three types:

a. Theories that focus on the individual's psychological process, such as attitudes and beliefs: individual behavioural change generally describe stages the individual pass through while trying to change behaviour. The understanding of behaviour change of the BDI Model is based on individualistic and cognitive models of behaviour change.

These theories are criticized for their overemphasis of the cognitive level and social blindness as they do not consider the interaction of social, cultural and environmental issues as influential on individual factors. They assume that behaviour change occurs by altering risk perception, attitudes, risk producing situations, intentions, efficacy beliefs and outcome of expectations (Kalichman, 1997). As for HIV prevention, they centre in the practice of risk-reduction skills. Examples of these models are the Health Belief Model of the 1950s, the Social Cognitive or Learning Model (Bandura, 1977), the Theory of Reasoned Action (Fishein & Ajzen, 1960), the stages of change model (Prochaska, 1992) and the AIDS risk reduction model (Catania et al, 1990).

b. Theories emphasizing social relationships: they recognise the complexity of HIV transmission and control, societal norms, religious criteria and gender-power relations which enable positive and negative changes. The models aim at changes at the community level which can



only take place with larger societal support. Examples are the Diffusion of innovation theory (Rogers, 1982), Social influence or inoculation model (Howard, 1990), the Social Network Theory (Morris, 1997) and the Theory of gender and power (DiClemente, 1995).

c. Theories focusing on structural factors in explaining human behaviours: Structural and environmental factors like poverty, job opportunities, access to health services are also determinants of sexual behaviour, besides the individual and social ones. Examples: Theory for individual and social change or empowerment model (Werner, 1997), Social ecological model for health promotion (McLeroy, 1988).

There is of course an overlap in categories. Therefore it is preferable to see the theories as a continuum of models moving from strictly individually-centered to the macro-level of structural factors.

3 Methodology of the study

The study is descriptive and exploratory and uses a combination of quantitative and qualitative methods of data collection.

The descriptive part refers to study of documents about the curriculum development process and the goals, objectives, content and teaching methodologies of Comprehensive Sexual Education Discipline that was introduced at UCM.

The exploratory part of the study presents the quantitative and qualitative results of two surveys and a focus group discussion which were part of a peer review of the Discipline in October 2014.

3.1 Data collection and analysis

Data collection was conducted in the following ways:

- Study of documents: Workshop and meeting reports, the curriculum, the didactic material of the Comprehensive Sexual Education Discipline, Training reports and monitoring sheets of lecturers during the implementation of the Discipline.
- Peer review of the discipline: a questionnaire for lecturers was conducted with multiple choice and open questions.
- The study population was 28 lecturers. 14 lecturers Responded to the questionnaire (auto-selection or convenience sample).

Complementary to the questionnaire a focus group discussion was held to discuss opinions and perceptions via skype in which six lecturers participated.

- Students were involved in the study through an online questionnaire using Survey Monkey with structured and open questions



to which 75 students responded (convenience sample).

Data analysis of the quantitative data was done by excel and by using the Survey Monkey Software which exports data to excel. Qualitative data was analysed by codification of answers and quantification of frequency using excel.

3.2 Limitations of the study

The major challenge was to get a representative sample of the student population, due to the huge population size of 20.000 students and the geographical distribution of students in ten faculties at eight different locations. The convenience sample may have led to bias in the results, as it is more likely that the more interested students and students with access to internet responded to the questionnaire and other students were not reached by the survey.

Budgetary constraints did not allow to travel to all the faculties and conduct face-to-face interviews and focus group discussions at all the faculties.

4 Results

4.1 Curriculum development and implementation of comprehensive sexual education at UCM

The starting point of the curriculum development process was the institutional commitment to mainstreaming HIV into the curriculum in the HIV policy of UCM of 2008 which foresees the introduction of what it called a “Basic Module on HIV” in the courses of HIV.

In February 2010 a retreat was convened in which participated HIV Focal Points (lecturers) of five faculties of UCM, the university chaplain, technical advisors and students’ representatives (HIV activists). The participants discussed and reformulated a draft concept paper of the curriculum, decided on the goals, objectives, content and structure of the syllabus. Five objectives of the curriculum were identified; each would correspond to a learning unit of the Comprehensive Sexual Education discipline:



Proceedings of the 13th International Conference on Private Higher Education in Africa, August 2015

Unit	Objective	Content
1	Enhance the understanding of one's personality and foster self-esteem	Personality and its development, tempers, self-esteem, Culture, Gender
2	Make safe choices of sexual and Reproductive health and promote relationships that respect gender equity	Sexual and Reproductive Health and Rights. Characteristics of healthy relationships.
3	Increase protection against HIV infection and adherence to treatment, combat stigma & discrimination	The basics of HIV&AIDS transmission, prevention, treatment, Stigma & discrimination
4	Identify choices and strategies to overcome vice and dependencies	Vice and dependencies, causes and effects of drug and alcohol abuse
5	Deal effectively with demands and challenges of everyday life	My plan for Life, Life skills: Time, Money, Conflict Management

A decision was made to employ participatory methods. Activities and case studies were designed and tested. The retreat ended with the distribution of tasks to elaborate two manuals: a Student's and a Facilitator's Manual.

The compilation of the two manuals was intensive work. It passed through a testing phase in March 2011 in which 11 lecturers participated and recommended improvements. The manuals and the study plans were finalised in 2011.

The implementation process of the curriculum commenced with a decree of the University Rector which ordered the integration of the discipline into the curriculum of all courses at all campuses with 3 ECTU in the study year 2012.

To guarantee the quality of facilitation of the discipline and the application of its participatory methodology as well as to make lecturers knowledgeable in Sexual and Reproductive Health and HIV&AIDS, a three day training workshop was held for a total 20 lecturers, two from each faculty/centre/delegation of UCM in February 2012. The methodology of the workshop, its contents, the material distributed were highly acknowledged and lectures left the event well prepared for the start of the lessons.

All the faculties introduced the discipline in 2012, however not in all of



Proceedings of the 13th International Conference on Private Higher Education in Africa, August 2015

the academic courses as the decree had envisaged. Lessons were monitored at seven of the ten faculties of UCM in the course of 2012 by the Programme Officer and the HIV Advisor of the HIV Department of the Rectorate, using a monitoring instrument that had been elaborated and tested prior to the visits. Feedback to the lecturers was provided after each lesson visited. In general, the quality of the lessons was satisfactory and the response of students to methods and content were very positive. The major constraints for quality and impact of the discipline were the existence of very large classes (50-60 students), the lack of technical devices like datashow projectors in the classrooms, the lack of copies of manuals for students and in some cases the absence of sound preparation of the lesson by the facilitators/lecturers. Facilitators also struggled with the control of lesson time, as some of the topics gave raise to very intensive and prolonged discussions.

The recommendations of the monitoring report were acknowledged by the Rector who ruled in a letter to the Deans to reduce the number of students per class to 30 in 2013.

25 lecturers participated in two regional refresher-trainings in February 2013.

2014 saw a rising number of students and the introduction of new courses at UCM. Lecturers requested the revision and up-dating of the manuals and the training of more lectures. Before revising the manual a peer review was conducted and the recommendations were incorporated in the new manual. A one-week training workshop for 30 lecturers on the use of the methodology and the new manual was held in July 2015. Conditions are prepared for the improvement of quality of the discipline in terms of methodology and content from the second semester of 2015 onwards.

4.2 Results of the Peer Review of the Discipline - Survey of students and lecturers and focus group discussion

The review of the existing module took place in October 2014. It was conducted with the means of an online questionnaire of students, a questionnaire for lecturers and a focus group discussion via skype with lecturers. The questionnaire and the focus group discussion collected participants' opinions on the structure, content, methodology, activities/exercises, assessment methods and necessities of improvement of the discipline.



Structure of the discipline:

One of the focuses of the investigation was the adequacy of the structure of the discipline and the weight of the units in terms of time allocation.

Table 1: Importance of Study Units – Responses of Students

Study Unit	Very important	Important	Less important	Rating Average
Personality	43	24	3	2.57
Sexual and Reproductive Health	58	12	2	2.78
HIV	57	13	2	2.76
Dependencies, Substance Abuse	40	20	13	2.37
Life skills	35	28	5	2.44

The responses of the students show that the units about Sexual and Reproductive Health and about HIV are considered most important, followed by the unit on personality. The unit about dependencies was considered the least important of the five units. 89% of the students saw no need to change the structure of the discipline.

The responses of the lecturers show similar results compared to those of the students. 64% of the interviewed lecturers agreed that the structure of the module should remain unchanged. Sexual and Reproductive Health received the highest average rating, followed by dependencies/substance abuse and HIV. In the opinion of the lecturers these are most important as there is a lot of risk taking behaviour. Interestingly the unit on personality was considered by teachers the least important of the five units. Suggestions were to include life skills in the unit on personality or to introduce a separate unit on marriage. In the focus group discussion a consensus was reached that there would be no change of structure and that the unit about personality should remain the first unit as it provides a basis for the other units.



Table 2: Importance of Study Units – Responses of Lecturers

Study Unit	Very important	Important	Less important	Rating Average
Personality	6	6	2	2.29
Sexual and Reproductive Health	12	2	0	2.86
HIV	9	5	0	2.64
Dependencies, Substance Abuse	10	4	1	2.79
Life skills	9	3	2	2.50

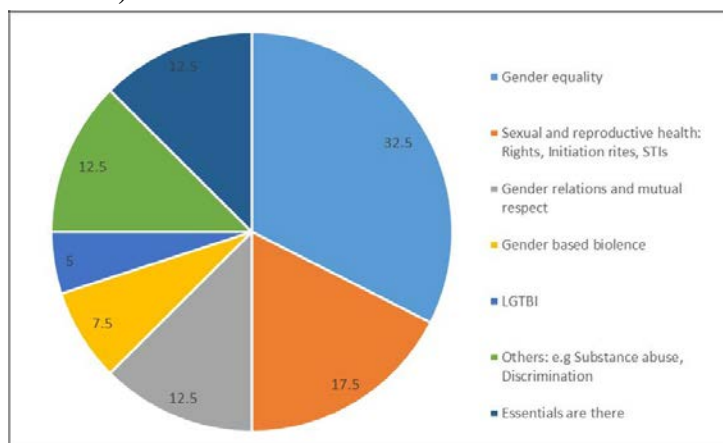
In terms of time allocation to the interviewed lecturers reached the following consensus:

- a. Personality: 15% of the lesson time.
- b. Sexual and reproductive health: 25%
- c. HIV: 25%
- d. Dependencies and substance abuse: 20%
- e. Life skills: 15%

Gender sensitivity of the module:

40 of the 75 students responded the question whether gender related aspects were missing and identified aspects that needed more discussion:

Figure 2: Gender related aspects to be discussed more (in % of responses of students)



Lecturers also gave priority to discuss in more depth gender equality and empowerment of women as well as cultural aspects of gender relations.



61% of students and of lecturers considered the integration of gender aspects high or very high and stated that gender issues were discussed in the study units on personality, sexual and reproductive health and HIV. However, two thirds of the students and 58% of lecturers proposed a separate unit on gender. It was then agreed in the focus group discussion that no separate unit on gender would be introduced as gender was seen as a cross-cutting issue.

Content in need of:

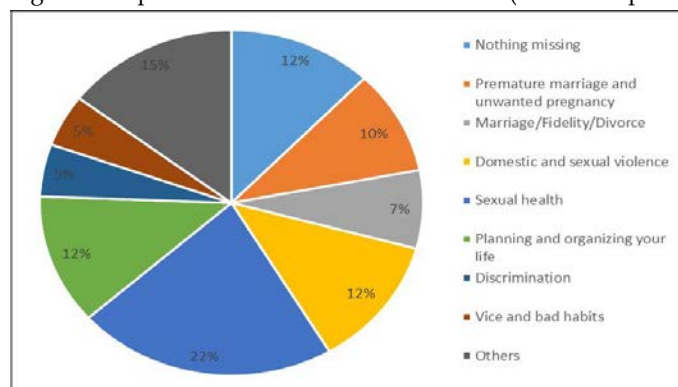
Table 3: Topics to be revised or updated – Responses of students

Topics	Yes	No	Rating Average
HIV prevention methods	34	33	1.49
Life skills	36	27	1.43
Family Planning	35	25	1.42
Others: not specified	19	13	1.41
PMTCT (Prevention of Mother-to-Child Transmission)	34	23	1.40
Gender Based Violence	39	22	1.36
Drugs, Substance abuse	42	22	1.34
Antiretroviral Treatment	45	16	1.26

In the opinion of the students the three topics with the highest need for updating or revision were HIV prevention methods, life skills and contraceptive methods, the least important topic to be updated is antiretroviral treatment.

Lecturers identified Antiretroviral Treatment, Gender Based Violence and PMTCT as the three topics in most need for updating.

Figure 3: Topics in need of more consideration (in % of responses of students)





Lecturers suggested to focus on sexuality education particularly for young people, the challenges of HIV prevention, the discussion of ethics and the position of the Catholic Church concerning marriage, parenthood, abortion and the combat of discrimination on the basis of gender, HIV status, and ethnicity.

Methodology:

As can be seen from figure 5, there is no consensus among students when it comes to the preference of the methodological approach: Lectures versus tutorials with exercises or activities? While some number of students suggested that the discipline should be conducted in the traditional form of lectures, more students had a preference for interactive methods. Lecturers in general embraced the participatory methods. They stated that discussions and activities are more important and that theory should be limited to the core information necessary. Lecturers proposed the use of theatre, illustrations, the encouragement of reading as ways to increase interest and reflection. Students requested more use of realistic life stories, practical exercises and theatre.

Exercises:

98% of students responded that the exercises/activities corresponded with the necessities of the students.

In general, lecturers found the exercises adequate for day students. 60% of the lecturers agreed that the exercises were also adequate for adult students of the night courses. However, lecturers suggested to improve the language and to adapt the Case Studies to the needs of adults. The consensus in the focus group discussion was that some exercises and case studies should be earmarked for adults/night courses in the revised manual.

There was a high level of coincidence about the most and the least popular exercises in the opinion of the students and the lecturers. It was agreed in the focus group discussion to reduce the number of exercises by taking out the least popular ones in the new manual.

The use of Case Studies based on real life stories was highly appreciated and considered relevant. The respondents recommended to revise/shorten the texts of the Case Studies and select the most relevant ones. It was seen from the responses of students, that a number of Case Studies were not discussed in the lessons due to time



constraints. This problem occurred particularly in connection with the exercises in units 4 and 5. Some lecturers asked students to do them as homework. In the focus group discussion it was pointed out that the Case Studies are important for debate and reflection and therefore should be done. Lecturers agreed that there is a need of better time management on their part so that the exercises of the last two units also can be done.

Students' assessment methods:

80% of students suggested to include the marks of homework into the final mark of the discipline. 70% were of the opinion that exams should consist of a combination of multiple choice and open questions.

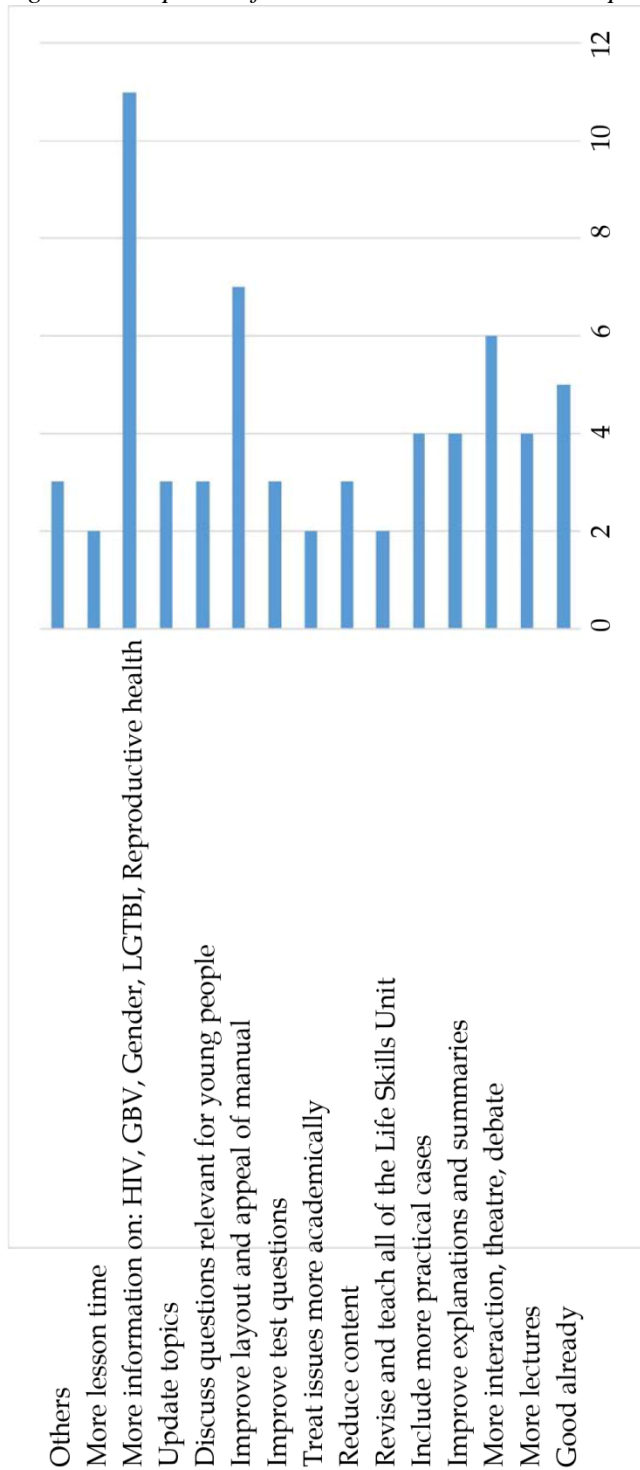
Two thirds of teachers agreed that homework should be included in the final mark. Teachers also said that tests and exams should not be exclusively composed of multiple choice questions. The consensus in the focus group discussion was that the weight and distribution of open question and multiple choice questions in an exam should be left to the discretion of the each lecturer.

Suggestions for improvement

The suggestions for improvement made by students are presented in figure 4.



Figure 4: Response of student s: What should be improved?





From these suggestions it becomes clear that there are some *didactic issues* that need to be dealt with like the improvement of explanation and summary, improvement of test question, decongestion of the module and better time management, e.g. to be able to teach the complete syllabus including the last unit on life skills. It is also obvious that there is demand for more relevance of the topics for young people and for updating and increase of information on some topics. It will be a challenging task to reconcile these demands with the available lesson time.

The majority of lecturers requested an increase of the lesson time from two periods per week to four periods per week. In terms of the relevance of the discipline for health and social wellbeing of the students and in terms of the amount of information and activities, this is a legitimate proposal. However, it is quite unrealistic to get it approved by the Academic Council due to lack of room for change in the curricula of the courses.

Other recommendations of lecturers were to increase the quality of the texts in the manual and using literature from psychology.

General comments of students about the discipline:

The students' general comments about the discipline were overwhelmingly positive. 80% of the responses of students said that the discipline was very important, educating, motivating. They had learned a lot for their lives and for solving their problems and changing their attitudes. 8% of respondents suggested to improve the topics, 4% recommended a better choice of lecturers. Only 8% made negative comments like that the manual needed a complete revision and the topics were out-of-date.

4.3 Discussion of implications and significance of results

4.3.1. Conception of the curriculum

The integration of sexual and reproductive health and HIV prevention into the curriculum of the courses of UCM was a "political" decision responding to the needs of the youth and to a priority societal problem (namely the HIV epidemic), aiming at learner welfare and development of future



leaders. Following Kelly (2000a), the institution realized that education in a world of AIDS must be different and related not only to HIV but also do sexual and reproductive health and gender. According to Amado, Operti and Tedesco (2014), this conception of UCM of a curriculum goes beyond the traditional concept of a curriculum in terms of just being a study plan. The curriculum of the Comprehensive Sexuality Education discipline is based on and promotes values, in this case ethical and social values of the Catholic Church. It reflects the thinking of Tedesco et al (2013) who points out a double link between knowledge and ethical values that knowledge alone does not make people good but that information is required for ethically fair behaviour.

The curriculum of the Comprehensive Sexuality Education discipline applies three of the recent approaches to the curriculum as proposed by UNESCO-IBE (2009) and Tedesco et al (2013):

- inclusive education with personalized learning,
- creation of competencies in order to equip students with the competency to deal with real life problems in their social and cultural context.
- Combination of the development of soft (non-cognitive dimensions like emotions, attitudes, values, personal qualities) and hard skills (cognitive-dimensions).

4.3.2. Curriculum Development Process:

The curriculum development process of the discipline on Sexual and Reproductive Health and HIV Prevention was inclusive: as recommended by Kelly (2000a) and Kirby (2007) a variety of stakeholders were involved, such as students, community/religious leaders, lecturers, technical advisors, medical doctors. During this process the needs of the target group were assessed.

The compilation of the curriculum used a logic model in the form of a BDI model (Kirby, 2004) with clear health goals, important behaviours and risk & protective factors or determinants of behaviours and activities that could address those factors.

Participatory methods and experimental learning techniques were tested and then used in the program.

In case Kirby's (2007) research on effective programmes of Comprehensive Sexuality Education is correct, the UCM Case Study of integrating Sexual



and Reproductive Health into the curriculum can be considered an effective comprehensive sexual education programme. It bears the majority of the characteristics of effective programmes of Comprehensive Sexuality Education as defined by Kirby (2007).

4.3.3. Goals and contents:

Effective CSE programmes must have clearly defined health goals and objectives (Kirby, 2007). This is the case with the CSE discipline of UCM whose goals and objectives are focused on health, rights and values. The discipline creates knowledge necessary for informed choices on the basis of Christian values: students confirm that the discipline helps them to reflect about their attitudes and behaviours. Sexuality Education cannot be dissociated from ethical values.

The results of the peer review indicate that the discipline deals with topics that are relevant for the audience and develops skills to tackle sexual and reproductive health problems, some of which need more profound discussion or updated information on recent scientific findings.

The units discuss many examples of the link between sexual behaviour and its determinants like social norms, cultural norms, perceived risks and attitudes. In particular social and cultural norms related to gender. Although some aspects of gender need more emphasis, the integration of gender as cross-cutting theme of the discipline shows a satisfactory level.

The structure of the discipline and the logic of the contents has been approved by students and lecturers alike.

4.3.4. Activities and teaching methodology:

The discipline uses a range of activities from risk appraisal, self-evaluation, case studies, role plays, interpretation of posters, interpretation & completion of illustrations, to the design of a plan of life and workplan. As the peer review shows, the activities are highly appreciated by students, with few being less popular.

As recommended for effective CSE programmes (Kelly, 2000a) UCM uses participatory methods for the discipline. The purpose of the participatory methodology has been well received. It seems to be better understood by lecturers than by students. Not all of the students are convinced of the usefulness of the participatory methods, they suggest more lectures as this is the common teaching methodology in the country. The major problem of the



methodology is that it is time-consuming and that time constraint is a challenge that can be resolved in the first place only through better time management and planning by the lecturers and less likely by the increase of time allocated to the discipline in the overall curriculum of the courses.

The methodology of the discipline enhances the creation of life skills in the definition of UNICEF (2003), starting from cognitive skills to personal and inter-personal skills to manage oneself and interacting with others, e.g. the partner.

4.3.5. Behavioural change model

The model applied by the discipline goes beyond risk perception and cognitive individual behaviour change and recognises the importance of social relationships and norms. However, it is obvious that the teaching cannot change social norms, but empower students to be aware of the negative impact of some of the established norms on health and empower them to self-protection (cf. Social learning theory, changes at community level, Morris, 1997 Theory of gender and power of DiClemente, 1995)

4.3.6. Implementation process:

The introduction of the discipline was secured through the support from the top management level of the institution. Selected educators were trained and refresher trainings held. The capacity development has to be an ongoing process as the peer review shows that some didactic issues like lesson planning, time management, skills to summarize and provide clear messages and up-to-date information have to be enhanced in teachers.

A monitoring and evaluation system exists and has produced new improved didactic material for the discipline.

5 Conclusion

The example of UCM is a successful example of integration of sexual and reproductive health and HIV prevention into the curriculum of an institution of higher education. UCM is the only higher education institution in the country with such a discipline. Its experience could serve as a model to replicate in other institutions of higher education.

The UCM Case Study of can be considered an effective comprehensive sexual education programme as it bears all of the characteristics of effective programmes of Comprehensive Sexuality Education as defined by Kirby (2007) in terms of the process of curriculum development, content,



methodology and implementation such as:

- inclusiveness of the process of developing the curriculum,
- logic model approach,
- focus on health goals and values and address of determinants of behaviour factors,
- relevance of topics
- variety of participatory activities,
- trained facilitators,
- monitoring and evaluation of the curriculum.

The impact of the discipline is great: in quantitative terms the discipline reaches all students of UCM, normally in the first year of study, and in qualitative terms students acknowledge its importance for their health and wellbeing.

References

Ajzen I, Fishbein M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, New Jersey: Prentice-Hall.

Amadio, M., Operti, R. and Tedesco, J. C. (2014). *Curriculum in the Twenty-first Century: Challenges, tensions and open questions*. ERF Working Papers Series, No. 9. UNESCO Education Research and Foresight: Paris.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, New Jersey: Prentice-Hall.

Barrows, H.S.(1994). *Problem-Based Learning Applied to Medical Education*. School of Medicine.Southern Illinois University: Springfield.

Catania J., Kegeles S., Coates T. (1990). Towards an understanding of risk behavior: an AIDS Risk Reduction Model (ARRM). *HealthEducationQuarterly*, Vol 17 (1), pp. 53-72.

CIDI & UCM (Ed.). (2012). *Relatório preliminar de estudo de incidência*. Beira:UCM.

Coombe, C., Kelly, M.J. (2001). Education as a vehicle for combating HIV/AIDS. *Prospects*, Vol. 31, Issue 3, pp.435-445.

CREA, Girls Power Initiative, IPPF, International Women's Health Coalition, Mexfam&



Population Council (2011). *It's all one curriculum*. Volume 2, Activities for a unified approach to sexuality, gender, HIV and Human Rights Education. Revised Edition: Population Council. New York.

DiClemente, R., Wingood, G. (1995). A randomized controlled trial of an HIV sexual risk-reduction intervention for young African-American Women. *JAMA*, vol 274 (16), pp. 1271-1276.

Finch, C.R. & Crunkilton, J.R. (1999). *Curriculum Development in Vocational and Technical Education, Planning, Content, and Implementation*. 5th Ed. Boston: Allyn and Bacon.

Hedberg, J. G. & Harper, B. (1995). Exploring Interactive Multimedia Information Landscapes. Educational Multimedia and Hypermedia, Proceedings of ED-MEDIA 95 World Conference on Multimedia and Hypermedia, Graz, Austria; June 17-21, pp. 301-305.

Howard, M., McCabe J. (1990). Helping teenagers postpone sexual involvement. *Family Planning Perspectives*, 22 (1), pp.21-26.

Instituto Nacional de Saúde & Ministério de Saúde. (2010). *INSIDA 2009. Inquérito Nacional de Prevalência, Riscos Comportamentais e Informação sobre o HIV e SIDA em Moçambique*, Relatório Final, Maputo: MISAU.

Johnson BT, Carey MP, Marsh KL, Levin KD, Scott-Sheldon LAJ. (2003). Interventions to reduce sexual risk for the human immunodeficiency virus in adolescents, 1985–2000. *Arch Pediatr Adolesc Med*. 2003; Vol 157, pp. 381–388.

Kalichman, S., Hoppers, H. (1997). Efficacy of behavioral–skills enhancement HIV risk-reduction interventions in community settings. *AIDS*, 11 (suppl A): S191-S199.

Kelly, MJ., SJ. (2000a). Standing Education on its Head: Aspects of Schooling in a World with HIV/AIDS. *Current Issues in Comparative Education*, 3(1). Teachers College: Columbia University.

Kelly, M.J. (2000b). *The Encounter Between HIV/AIDS and Education*. University of Zambia: Lusaka.



Kelly (2000c). Planning for education in the context of HIV/AIDS. *Fundamentals of Educational Planning* 66. International Institute for Educational Planning, UNESCO: Paris.

Kern, L., & Dunlap, G. (1998). Curricular modifications to promote desirable classroom behavior. In J. K. Luiselli & M. J. Cameron (Eds.), *Antecedent control: Innovative Approaches to Behavioral Support*. Baltimore: Paul H. Brookes.

Kirby D. (2004). *BDI Logic Models. A Useful Tool for Designing, Strengthening and Evaluating Programmes to Reduce Adolescent Sexual Risk-Taking, Pregnancy, HIV and other STIs*. ETR Associates: Scotts Valley California.

Kirby, D. et al. (2011). *Reducing Adolescent Sexual Risk. A Theoretical Guide for Developing and Adapting Curriculum-based Programmes*. ETR Associates: Scotts Valley, California.

Kirby, D., et al. (2012). *Promoting Partner Reduction*. FHI 360. Durham.

Levin, H. (2012). More than just test scores. *Prospects, Vol. 42, No.3*, pp. 269-84.

Lynn, L.E. (1996). *What is the Case Method? A Guide and Casebook*. Japan: The foundation for Advanced Studies on International Development.

McLeroy, K. Bibeau, D., Steckler A., Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Ed Quarterly* 1988, 15(4), pp. 351-377.

MISAU, Instituto de Ciências de Saúde, Instituto Nacional de Estatística. (2010).

INSIDA Inquérito Nacional de Prevalência, Riscos Comportamentais e Informação sobre o HIV e SIDA em Moçambique, INE: Maputo.

Morris, M. (1997). Sexual networks and HIV. *AIDS. Suppl. A*, pp. 209-S216.

Prochaska J, Di Clemente C. (1992). Stages of change in the modification of problem behaviors. Hersen, M., Eisler, R. & Miller, P. (Eds.). *Progress in Behavior Modification*. Sycamore, Illinois: Sycamore Publishing Company, p. 28.



Robin, L., Dittus, P., Whitaker, D., Crosby, R., Ethier, K., Mezoff, J., et al. (2004). Behavioral interventions to reduce incidence of HIV, STD, and pregnancy among adolescents: a decade in review. *Journal of Adolescent Health, 34*, pp.3-26.

Rogers, E.M. (1983). *Diffusion of Innovations*. Third Edition. New York: The Free Press.

Rosenstock I., Strecher, V., and Becker, M. (1994). The Health Belief Model and HIV risk behavior change. DiClemente, R.J. & Peterson, J.L. (Eds.), *Preventing AIDS: Theories and Methods of Behavioral Interventions*. New York: Plenum Press, pp. 5-24.

Tedesco, J., Opertti, R., Amadio, M. (2013). *The curriculum debate: why it is important today*. IBE Working Papers on Curriculum Issues No 10. UNESCO International Bureau: Geneva.

UCM. (2008). *Política de HIV&SIDA*. UCM: Beira.

UCM. (2009). *Política de Assedio Sexual*. UCM: Beira.

UCM. (2012). *Plano Estratégico 2012-2016*. UCM: Beira.

UCM. (2014). *Política de Género*. UCM: Beira.

UCM. (2014). *Plano Estratégico do Departamento HIV 2014-2018*. UCM: Beira.

UNAIDS. (2014). *Report on the Global AIDS Epidemic*. UNAIDS: Geneva.

UNAIDS. (2011). *Terminology Guidelines*. UNAIDS: Geneva.

Underhill, K., Operario, D., Montgomery, P. (2007). Systematic Review of Abstinence-Plus HIV Prevention Programs in High-Income Countries. *Plos Medicine, Vol.10*.

UNDP, UNESCO, UNFPA, UNICEF & UNWOMEN. (2011). *Looking Towards 2015: Breakthrough Strategies for Women, Girls, Gender Equality and HIV in Eastern and Southern Africa*. UNDP: New York.

UNICEF. (2003). Definition of Terms: Knowledge, attitudes, life skills, life skills education. Available from http://www.unicef.org/lifeskills/index_7308.html.

UNICEF. (2012). *Global Evaluation of Life Skills Education Programmes*.



UNICEF: New York.

UNESCO International Bureau of Education (UNESCO-IBE). 2009. *Defining an inclusive education agenda: Reflections around the 48th session of the International Conference on Education*. UNESCO-IBE: Geneva.

UNESCO, UNAIDS. (2009). *International Technical Guidance on Sexuality Education. An Evidence informed approach for schools, teachers and health educators*. Vol 1. The rationale for sexuality education. Vol 2. Topics and Learning Objectives. UNESCO: Paris.

Werner, D., Sanders, D. Weston, J., Babb, S., Rodriguez, B. (1997). *Questioning the Solution: the politics of primary health care and child survival with an in-depth critique of oral rehydration therapy*. Palo Alto, California: Healthwrights.

Wiles, J. & Bondi, J.C. (1984). *Curriculum development: a guide to practice*. 2nd Ed., Columbus:Merril.