
Education about HIV/AIDS—theoretical underpinnings for a practical response

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Abstract

Human immunodeficiency virus (HIV)- and acquired immunodeficiency syndrome (AIDS)-related education is seen by many as central to increasing young people's awareness of, as well as decreasing their vulnerability to, HIV. There is less agreement, however, on the central goals of HIV- and AIDS-related education and the form it might best take. This paper offers a conceptual framework for understanding some of the main approaches to HIV- and AIDS-related education being implemented today, drawing a distinction between approaches which are 'scientifically' informed; those that draw upon notions of 'rights' and those which are overtly 'moralistic' in the sense that they promote conservative moral positions concerning sexuality and sexual acts. In outlining these three approaches, we examine different ways in which the terms 'science', 'rights' and 'moral values' are conceptualized and some of the key assumptions underpinning different forms of HIV- and AIDS-related education. Findings will be useful for those desiring to develop a typology of approaches to HIV- and AIDS-related education and their potential effects.

Introduction

Good quality human immunodeficiency virus (HIV)- and acquired immunodeficiency syndrome (AIDS)-related education is seen by many as central to increasing young people's awareness of, and decreasing their vulnerability to, HIV [1, 2]. National governments across the world have developed policies to address HIV- and AIDS-related education within the formal education system and through out-of-school activities, and many international development agencies provide support for HIV- and AIDS-related education programmes. However, debates continue within both academic and international development circles about the purpose of such education and the form it might best take [3–5]. For some, the issue is one of effectiveness defined in terms of achieving desired outcomes for behaviour, whereas for others the key issue is one of values and attitudes towards sexuality, sex and relationships.

Globally, HIV- and AIDS-related education programmes set out their objectives and the process whereby they hope to achieve their goals in quite different ways. Some initiatives for example seem largely concerned with promoting 'responsible' behaviours (for example, the Expanded Life Planning Education Programme, which is delivered as part of the formal school curriculum in Oyo State, Nigeria [6]). Others place the realization of young people's rights at the heart of their agenda, such as for example the Brazilian *Saúde e Prevenção nas*

Escolas (Health and Prevention in Schools) programme, which is designed for young people between 13- and 19-year old attending public secondary schools [7]. Similarly, while agencies such as the United Nations Children's Fund (UNICEF) have argued that the development of life skills may be an effective way of reducing young people's vulnerability to HIV and AIDS [8], work such as that initiated by the Jerusalem AIDS Project (JAIP) stresses the development of young people's scientific understanding of HIV as a key determinant of success [9]. Put quite simply, there exists debate about the forms, ends and means of HIV- and AIDS-related education that cannot be reduced to concern for narrowly conceived notions of effects and effectiveness alone.

Despite the range and proliferation HIV- and AIDS-related education programmes, to date there have only been a few attempts to develop a conceptual framework for understanding and categorizing this large field of work. In one early framework, Homans and Aggleton [10, 11] identified four models of HIV- and AIDS-related education, distinguishing between programmes on the basis of their understanding of disease and health (whether these were seen as dependent on personal behaviour and/or related to structural factors), their goals (changing what were considered to be behavioural determinants or focusing on young people's rights) and the pedagogy employed (for example, formal education or non-formal initiatives). Smith *et al.* [12] subsequently put forward a typology of approaches to HIV- and AIDS-related education based on their work in South East Asia. As well as looking at means and ends, this focused in large part on identifying whether and how the subject had been integrated within the formal education system.

Surprisingly, no further attempts to examine and categorize different forms of HIV- and AIDS-related education have been made. Given the urgency of the HIV epidemic, and particularly the need to prevent further transmission among young people, and the investment going into the field of HIV- and AIDS-related education, we would argue there is a need to expand on work to date, and continue to develop analytical frameworks that

capture the many ways in which HIV- and AIDS-related education programmes are conceptualized and delivered. Developing such a framework should foster a greater and more critical engagement between educational theory and the development of HIV- and AIDS-related education programmes, but should also provide the tools for practitioners, programme evaluators and policy makers to better understand differences between currently delivered programmes and some of their possible limitations and inconsistencies. The latter will, we hope, support governments and development agencies to think more systematically about the kind of HIV- and AIDS-related education programmes they wish to invest in.

Methods

The present article and the conceptual framework discussed herein builds on a secondary source review of a wide range of HIV- and AIDS-related education programmes for young people currently implemented in different parts of the world. We first collected information about >60 HIV- and AIDS-related education programmes across all five continents from key databases and from a detailed examination of resources catalogued by academic educational and multi-disciplinary databases [including ERIC, PiCarta, ScienceDirect—using combinations of the following keywords: HIV and AIDS, sexual and reproductive health, sexuality/sex, behaviour change, prevention/preventive and formal/school-based education, policy, curriculum, programme/project]. Key databases searched included the UNESCO/IBE Curriculum Data Bank, the UNESCO/IIEP HIV and AIDS Clearing House, the Institute of Development Studies Eldis database (UNESCO/IBE Curriculum Data Bank is available at <http://databases.unesco.org/IBE/AIDBIB/>, the UNESCO/IIEP HIV and AIDS Clearing House at <http://hivaidsclearinghouse.unesco.org/> and the Institute of Development Studies Eldis database at <http://www.eldis.org/>) (using similar keywords) and programmes listed in the World Bank *Sourcebook of HIV/AIDS Prevention Programs* [6].

For this initial search of HIV- and AIDS-related education programmes, the following inclusion criteria were applied. First, programmes had to be school based. Second, detailed information had to be available about each programme before it could be included in our final sample. This included programme manuals and materials (either accessible on the web or by contacting relevant organizations) and background information on the institute or agencies responsible for programme development and delivery. Applying these two criteria to our initial sample of 60 programmes resulted in a final sample of 11 programmes which forms the focus of the analysis presented in this paper.

Using the documents gathered, we examined the various terms drawn on in the literature about each programme, their specific aims and objectives and means of delivery. From our initial analysis, we identified three key concepts that were regularly drawn on by the programme materials: behaviour change, rights and values. Through an iterative process we grouped different HIV- and AIDS-related education programmes being delivered into categories linked to these regularly occurring terms. This led us to develop an initial analytical framework which sets out three broad approaches: those programmes which were specifically or more loosely situated within social-psychological and behaviour change theory have been grouped together as ‘scientifically’ informed approaches; initiatives which focused primarily on facilitating the realization of young people’s ‘rights’ constitute a second grouping and finally approaches which were geared towards instilling particular, arguably, conservative moral views regarding sexuality and sexual practices have been categorized as ‘moralistically informed’ approaches to HIV- and AIDS-related education (see Figure 1). Of the 11 programmes in our sample, four were identified as scientifically informed, three as building on notions of rights and four as moralistically informed.

During the process of developing our framework for HIV- and AIDS-related education, we encountered two issues that needed to be resolved. First, where initiatives appeared to draw on key terms associated with more than one of the above approaches, we had to

debate and decide upon their ‘primary’ focus. This was first of all, done by examining the objectives of a particular initiative. Where this did not sufficiently clarify the programme’s primary focus, we analysed the vision and mission of the institute or agency responsible for its development and delivery. For instance, the South African initiative ‘Today’s Choices’ not only talked about young people’s rights but also drew on scientific evidence regarding effective education. However, because the programme explicitly stated that it ‘integrate[d] a rights based approach’ [13: preface] and that ‘[o]bjectives regarding sexual and reproductive health and rights [were] systematically integrated throughout [the teaching materials]’ [13: preface], we categorized this initiative as mainly being informed by rights. Second, as the three over-arching categories did mask some variation between programmes we developed a series of sub-categories within each approach to better capture the diversity of programmes, even when they draw on similar terminology or appear to have the same primary focus.

Approaches to HIV- and AIDS-related education

Scientifically informed HIV- and AIDS-related education

A focus on science is not new in literature on HIV- and AIDS-related education. Similar to public policy making more generally, the design and delivery of HIV- and AIDS-related education is increasingly grounded in scientific research of ‘what works’. As Aarø *et al.* [14: 1] argue, ‘[i]n order to be effective’, action to prevent HIV transmission among young people ‘should be theory and evidence based’ (emphasis added). Of the 11 programmes included in the final sample, 4 fall into what we have called the scientifically informed approach: the Kenyan Primary School Action for Better Health (PSABH), the JAIP in Israel, the *Lang Leve de Liefde* (Long Live Love) programme in the Netherlands and the Tanzanian Mema kwa Vijana (MkV) programme. Terms such as ‘behavioural determinants’, ‘research’, ‘(quasi) experimental methods’ and

Approach to HIV- and AIDS-related education	draws upon
Scientifically informed HIV- and AIDS-related education	<ul style="list-style-type: none"> ➤ <i>Biomedical knowledge and understanding</i> ➤ <i>Insights from experimental psychological studies</i> ➤ <i>Evidence from epidemiological & behavioural studies</i>
Rights informed HIV- and AIDS-related education	<ul style="list-style-type: none"> ➤ <i>Formal notion of rights</i> ➤ <i>Looser definition of rights</i>
Moralistically informed HIV- and AIDS-related education	<ul style="list-style-type: none"> ➤ <i>Explicit conservative (often faith based) moral values</i> ➤ <i>Implicit conservative moral values</i>

Fig. 1. Tripartite analytic framework for understanding HIV- and AIDS-related education.

‘significant change’ are used extensively throughout the materials of these four programmes. Making reference to research into the determinants of behaviour and behaviour change, these programmes arguably draw heavily on a ‘fundamental intuition about science [which] progresses towards truth and accumulates truths as it goes’ [15: 6]. Here, science can be seen to serve an important function, namely the provision of ‘certified knowledge’ [15: 6].

Within the category of ‘scientifically informed’ approaches, we have included programmes which

are ‘evidence based’—that is programmes that have been shown to be successful through randomized controlled trials (RCTs) or other (quasi) experimental methods [6, 16–18]. But we also use the term ‘scientifically informed’ in a slightly different sense, namely to reflect more an engagement in some programmes with theories or bodies of knowledge that would have us understand human behaviour in terms of causal models. We believe grouping programmes which make reference to an evidence base and/or ‘certified [bodies of]

knowledge' [15: 6] offer a useful analytical opportunity to examine the underlying assumptions of initiatives commonly presented as drawing on both scientific knowledge and research.

At least three main kinds of HIV- and AIDS-related education programmes grounded in scientific research can consequently be distinguished in the literature. Some programmes build on the assumption that involving medical personnel (in training) to teach young people the 'facts' about HIV and AIDS—how the virus is transmitted and its impact on the immune system, for instance—is the most effective means of reducing HIV transmission (an example of such an approach being the earlier cited JAIP, which is aimed at children and young people attending primary and secondary school [6]). A second set of scientifically informed HIV- and AIDS-related education programmes have their roots in experimental psychology. Here, the goals, contents and teaching and learning methods of programmes often draw on information processing theory and the psychosocial studies of the determinants of safer sex. The Dutch *Lang Leve de Liefde* programme, which targets young people attending mid-level vocational education in the Netherlands, is an example of such an approach [19]. Finally, there exists a group of HIV- and AIDS-related education programmes that are scientific in the sense that they draw upon epidemiological and behavioural studies and seek to explore intervention effectiveness through their delivery. Examples of this latter type of programme might be the MkV sexual and reproductive health education programme implemented in primary schools and health facilities in the Republic of Tanzania [20] and the PSABH project, an HIV and AIDS behaviour change education programme for primary learners between 12- and 16-year old in Kenya [6].

Broadly speaking, all three types of scientifically informed approaches work from what might be understood as a classical notion of science in that they draw on a systematically organized and objectively verifiable body of knowledge—namely those of experimental social psychology and/or epidemiology and biomedicine—and include a research component (of varying rigour) that strives to provide

and build on (causal) explanations of phenomena, such as the effects of education on sexual behaviour [21, 22]. Importantly, scientifically informed HIV- and AIDS-related education is often presented as having the potential to provide learners with trustworthy information (see for instance [9: 344]). A second common assumption underlying the various programmes identified is the belief that evidence gained through RCTs should be afforded special credence.

Programmes which frame themselves as based on 'evidence' and 'fact' are, however, open to criticism. Some commentators argue that science offers a socially constructed abstraction of reality and not any one 'truth' and that it represents particular (and value laden) versions of the world [23, 24]. Similarly, scholars might acknowledge that while experimental methods such as RCTs have proven useful in measuring impact of HIV- and AIDS-related education in relation to biomedical markers [25], authors such as Van der Ven and Aggleton [26] and Kippax and Stephenson [27] have argued that such methods should not be granted the same status in HIV-related social science as they are in biomedicine, in part because their design cannot take into account the sophistication of the social and cultural issues they aim to study: in this case, sexual practices and human agency. Instead, Kippax and Stephenson [27: 371] argue for combinations of qualitative and quantitative, cross-sectional and longitudinal studies as these have the potential to 'illuminate the ways in which people actively engage with sexual health education and ... capture and describe social change'.

HIV- and AIDS-related education informed by notions of rights

Awareness of the significance of human rights in the response to HIV and AIDS dates back to the beginning of the epidemic, but was explicitly recognized in 1987 with the issuing of the World Health Organization's initial global response to HIV and AIDS [28]. In the years that followed, insight into the ways in which human rights violations impacted on people's vulnerability to HIV infection has grown,

leading to a greater emphasis on human rights within HIV and AIDS prevention efforts, including HIV- and AIDS-related education [29, 30].

Three of the 11 programmes identified were categorized as primarily informed by rights: the UNICEF ‘My Future Is My Choice’ (MFMC) programme implemented in Namibia, the South African initiative ‘Today’s Choices’ and the Brazilian programme *Saúde e Prevenção nas Escolas* (Health and Prevention in Schools). Key terms used throughout these three programmes were ‘rights’, ‘participation’, ‘empowerment’ and ‘choice’. All three programmes were also clearly informed by an understanding of young people as social actors (explicitly within the Brazilian programme and more implicitly in the UNICEF initiative). In contrast, the programmes we have categorized as scientifically informed tend to use the language of ‘target groups’ when discussing who the initiative is aimed at.

There is a vast literature on the concept of rights and rights-based approaches and how such terms could be understood (see for instance [29–32]). Examining the three programmes in this category, one key difference emerged—programmes which draw on internationally recognized, formal human rights instruments to position themselves, and those initiatives more loosely informed by the concept of rights. The former can be characterized as embodying a more legalistic approach using the language of rights holders’ entitlements and duty holders’ responsibilities (usually understood to be the government), an example of which is the UNICEF MFMC life skills education initiative. HIV- and AIDS-related education initiatives that are based more loosely on the notion of rights, on the other hand, usually stress ideas of active citizenship, notions of empowerment and in some instances, concepts of sexual rights [33, 34], such as the Brazilian *Saúde e Prevenção nas Escolas* programme.

The rights informed programmes discussed here address both negative rights such as those prohibiting violence and positive rights aimed at enhancing capabilities and freedoms. Participation is a central concept running through the three rights informed HIV- and AIDS-related education initiatives, all stating that they wish to enable young people to

participate in public life and to claim their rights. However, there is not a consistent understanding of the term participation across the programmes identified. In the UNICEF MFMC programme, for instance [35], the notion of participation is interpreted in a rather restricted manner, simply meaning that young people are involved in the development and implementation of the programme. Whereas, at least in theory, other approaches (for example the Brazilian programme *Saúde e Prevenção nas Escolas* [7]), arguably conceptualize participation in a broader sense, namely in terms of young people’s involvement in the design of their school’s overall education policy and being encouraged to take part in local political processes more generally.

One of the fundamental difficulties within programmes that have a primary focus on rights is the way they conceptualize and facilitate young people to claim their rights beyond the abstract and arguably, individualistic terminology within the programme literature or in the actual sessions delivered to young people [31, 36, 37]. This applies not only to the concept of participation but also to fundamental rights-based notions such as accountability and rule of law. Linked to this broader point is the emphasis within some programmes on young people’s right to sexual pleasure (for instance, the South African ‘Today’s Choices’ and the Brazilian *Saúde e Prevenção nas Escolas* programmes). There appears to be no acknowledgement about the ambiguity of a concept such as pleasure and the need for it to be understood as relational and specific to particular contexts [34, 38]. Difficulties in moving beyond what appears to be a rhetorical use of concepts such as participation, accountability and pleasure stems from a lack of engagement with broader political and philosophical theories on rights, and a disregard for the importance of social relationships for people’s sense of well-being, as opposed to individual rights and entitlements [33, 39].

Moralistically informed HIV- and AIDS-related education

Because of the relation between HIV, sex, drugs and disease, the epidemic has brought traditionally sensitive issues into the open. In a similar vein, it

could be argued that HIV- and AIDS-related education is an inherently contentious field in which moral values come into play [40]. Our third, and final category of different HIV- and AIDS-related education approaches include those that might be defined as ‘moralistically informed’, in the sense that they build on a particular set of conservative moral beliefs concerning sexuality and sexual acts. Three out of the 11 programmes identified by the team fall into this particular category, these being the abstinence education approach taken by the US Federal Government, the Faith-Based AIDS Awareness Initiative (FAI) in Nigeria and the English Government’s Sex and Relationship Education (SRE) programme. The three sets of programme materials made frequent reference to notions such as ‘responsible behaviour’, ‘marriage’ and ‘moral development/standards of behaviour’.

What appears to distinguish between the different programmes in this category is the extent to which they can be seen to be explicitly or implicitly structured around particular conservative moral values regarding sexuality and sexual practices. The abstinence education programme of the US Government under the G.W. Bush administration and the FAI initiative in Nigeria—which draw on traditional interpretations of respectively, Christian and Islamic values regarding sex and sexuality—adopt a clear moral position with regard to what is considered acceptable social and sexual behaviour [41, 42]. On the other hand, the English Government’s SRE programme works with a more implicit and subtle morality. In this case, a compromise was seemingly struck between a public health agenda to reduce the prevalence of HIV and teenage pregnancy and a degree of moral conservatism [43]. Thus, for the two programmes explicitly structured around moral and oftentimes faith based values, the goal of avoiding or resisting sex before marriage, for instance, is seen as important in and of itself, this being in keeping with religious teaching. In the case of the English SRE initiative, such goals were couched in terms of public health needs and personal development goals [44].

Despite the differences in the way ‘morality’ is understood and promoted in these various

initiatives, common to all of them is the aim to reduce teenage pregnancy, prevent transmission of HIV and in the process strengthen traditional family values. The three programmes furthermore all tend to normalize heterosexuality, presenting differences between young women’s and young men’s sexuality as biologically given [45]. Finally, the three initiatives construct young people, gender and childhood/teenage sexuality in similar ways. Whereas children are generally portrayed as non-sexual, innocent and in need of protection, the teenage years tend to be described as a particularly volatile period in which young people oftentimes are especially susceptible to social pressure and risk taking, and unable to fully understand the consequences of their (sexual) behaviour [45–48]. Although the programme materials draw on the assumption that biological urges affect teenage boys most, it is usually teenage girls’ sexuality that is put forward as problematic. As such, it is the young women on whom the onus of responsibility for sexual morality (and avoiding pregnancy) is generally placed [49, 50].

It is important to note that many of the HIV- and AIDS-related education initiatives discussed allude on some level to similar moral concerns as those given here as examples of initiatives within a moralistically informed approach. A critical difference, however, is that the programmes categorized as moralistically informed are grounded almost solely on (conservative) moral concerns, whereas initiatives defined as scientifically informed and drawing on notions of rights are underpinned by other concerns, such as how to design and deliver good quality education and how to ensure this promotes young people’s rights.

Discussion and conclusions

This review of a sample of currently delivered HIV- and AIDS-related education programmes from across the world enables us to lay the foundations of a new conceptual framework for categorizing and drawing out the differences and similarities between the wide range of initiatives in place. We

have identified three broad approaches to HIV- and AIDS-related education: those that might be defined as scientifically informed, those building on particular notions of rights and those that could be understood as moralistic. The framework builds on earlier attempts by Homans and Aggleton [10, 11] and Smith *et al.* [12] to understand and categorize school based HIV- and AIDS-related education in that it focuses on the different ways of understanding the purposes of such education. More specifically, it identifies key concepts and values underlying the stated purposes of initiatives and various possible ways in which these broader notions are interpreted by programme developers and those implementing them. This new framework is therefore an attempt to provide a more nuanced and conceptually analytic framework for understanding HIV- and AIDS-related education than has previously been developed.

Although there are some similarities between all programmes—many for instance, building on certain moral values regarding acceptable social and sexual behaviour—there are also some significant differences between the broad approaches. The central difference between approaches is the way in which the purpose of HIV- and AIDS-related education is conceptualized, namely whether this is primarily defined as changing what are considered to be risky behavioural patterns, enabling young people to realize their rights, or instilling certain conservative moral values. We have also highlighted some of the variations between programmes categorized as belonging to these three approaches (as listed in Figure 1). Thus, for instance, within the moralistically informed approaches, initiatives differ in the extent to which these are implicitly/explicitly tied to conservative moral beliefs concerning sexuality and sexual practices.

Despite not being able to neatly categorize all identified programmes within the tripartite model, having a framework which enables practitioners, policy makers and academics to identify key areas of difference between programmes' primary focus and the ideological premises driving this forward in a relatively straightforward manner is important for

three reasons. First, it enables a more detailed examination of the underlying assumptions of HIV- and AIDS-related education programmes and sets up the possibility for comparing similar initiatives, or those that at first instance appear very different. Second, the development of such a framework also calls for, and supports the process of exploring the tension between programme development in principle and programme implementation in practice. There is evidence from life skills education in particular to suggest that many teachers feel uncomfortable and ill prepared to implement the participatory approaches to education that such an approach implies [4]. Similarly, educators may struggle not only to fully and consistently put into practice human rights principles but also—as has been noted elsewhere [51]—to educate young people about the abstract notion of rights in a way that is meaningful. A third crucial use of the proposed framework is that programme designers could use it when embarking on the design of a programme and to engage others in a critical discussion about the aims and mechanisms for HIV- and AIDS-related education, and the methods necessary to assess the quality of the education provided.

We plan to continue developing the tripartite analytic framework offered here in a number of ways. To date, our analysis has been carried out primarily using existing documentation of education programmes, including teacher and learner manuals and programme evaluation reports. The next step must be to collect data directly from key players involved in the design and delivery of HIV- and AIDS-related education programmes, including curriculum developers and educators. This will enable us to explore the gap between programme principles and *in situ* implementation. Using such primary data will facilitate a closer analysis of the nature of existing programmes, differences between programmes and how the process of delivering education may be influenced by young people's own interpretations of the ideas underlying a particular initiative (as Froyum [52] shows). It may also be informative to explore in greater depth how different strands of educational philosophy underpin these various approaches to HIV- and AIDS-related

education, such as not only instrumentalist approaches to education but also different interpretations of emancipatory pedagogy. Ultimately, this may allow us to suggest a number of clearly defined approaches to designing, delivering and evaluating HIV- and AIDS-related education which might side-step some of the limitations and inconsistencies within current programmes we have identified.

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Conflict of interest statement

None declared.

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