Understanding HIV/AIDS prevention programmes through the use of process evaluation

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Abstract

Through adopting a case-based approach, this research aims to illustrate the types of understanding that stand to be gained through the application of process evaluation. A model of process evaluation is developed which is tailored to address the specific challenges posed by HIV/AIDS as a topic for education. The model proposes a multi-layered approach to evaluation and incorporates three main categories: theoretical, pedagogical, and processual. Through considering the conceptualisation and implementation of programmes, the model illuminates aspects of an intervention programme that are often overlooked in the dominant modes of evaluation.

Introduction

With a national prevalence rate of almost 30 per cent (Department of Health, 2007b), there are more people living with HIV/AIDS in South Africa than any other country in the world (Abdool Karim; Abdool Karim, and Baxter, 2005). Thus, more than twenty years after its discovery, the virus continues to ravage communities and undo decades of development gains (Piot, Bartos, Ghys, Walker, and Schwartlander, 2001). Given that so much weight is placed on education as a means of prevention, it is imperative to have a thorough understanding of HIV/AIDS prevention programmes and of the factors that contribute to their success or failure.

HIV/AIDS is a complex social problem, an epidemic shaped by numerous individual, community, and macro-level forces (Campbell, 2003; Eaton, Flischer, and Aaro, 2003; Nattrass, 2004). It constitutes a sensitive topic for education due to its connection with issues of life, death, sex, and sexuality.

Of interest in this paper is the evaluation of HIV/AIDS intervention programmes. The authors note that the majority of evaluations, summative in nature, focus primarily on impact, and tend to compare outcome-level

variables, such as reported condom use and HIV-related knowledge, before and after the intervention (see Campbell, 2003; Scott, 1992). Such evaluations produce "descriptions of outcomes rather than explanations of why programmes work (or fail)" (Pawson and Tilley, 1997, p.30). So while outcome-focused evaluations have the potential to demonstrate the effectiveness of a programme, they neglect what happens during interventions and thus offer little insight as to how any given effects have been produced (Aggleton and Moody, 1992). For example, summative evaluations have revealed that information-based interventions have indeed been largely unsuccessful at effecting behaviour change (Campbell, 2003; Campbell and Mzaidume, 2002; Selicow, 2005; Varga, 2001), but do not offer explanations as to why they have been ineffective. In focusing primarily on impact and overlooking the processes through which any given outcomes have been achieved, many evaluations of HIV/AIDS intervention programmes are failing to respond to the complexity of the epidemic.

It would appear that evaluations which focus purely on outcomes are only answering to part of the problem. This gap in understanding points to the need for different kinds of questions to be asked, particularly given that the success or failure of an HIV/AIDS intervention programme can have implications for life or death. It is proposed here that the evaluation of HIV/AIDS prevention programmes requires a more holistic approach whereby more comprehensive, complex, questions are asked.

This paper draws on a case-based study that sought to examine the utility of process evaluation in an HIV/AIDS intervention programme, and illustrates the types of understanding that can be gained through such an evaluation. In response to the question: 'What contribution can process evaluation make to our understanding of HIV/AIDS intervention programmes?' The paper offers insight into how process evaluation, as an analytical tool, generates insights that other, more common, forms of evaluation are unable to provide. A model for process evaluation is developed which sheds light on the conceptualisation and implementation of HIV/AIDS intervention programmes and, we argue, may contribute to the development of more appropriate, comprehensive, and effective HIV/AIDS interventions.

Understanding HIV/AIDS evaluation processes

Different types of evaluation are applied to programmes in general and

HIV/AIDS intervention programmes in particular. Posavac and Carey (2007) identify four: evaluation of need, evaluation of process, evaluation of outcome (or summative evaluation) and evaluation of efficiency. Of consequence for this paper is an understanding of process evaluation or "programme monitoring" which is said to produce "a natural history of a project" (Scott, 1992, p.66). It is defined by the World Health Organisation (Roberts, 1998) as "the continuous oversight of an activity to assist in its supervision and to see that it proceeds according to plan" (Roberts, 1998). It is "the task of documenting the extent to which implementation has taken place, the nature of the people being served, and the degree to which the programme operates as expected" (Posavac and Carey, 2007, p.7).

An evaluation which overlooks the processes through which any given outcomes have been achieved has aptly been described as representing a 'black box' approach to programme evaluation (McLaughlin, 1987, cited in Harachi, Abbot, Catalano, Haggerty, and Fleming, 1999). Put simply, it does not seem logical to expend time and effort analysing the impact of an intervention without first gaining an in-depth understanding of its delivery, and of precisely how any positive outcomes can be reproduced (Plummer, Wight, Obasi, Wamoyi, Mshana, Todd, Mazige, Makokha, Hayes and Ross, 2007; Scott, 1992). The approach can produce valuable feedback and understanding on the running of a programme, allowing for any problems to be noticed as and when they occur. It also has the potential to increase the evaluability of an intervention through assisting the development of concrete, measurable goals (Rutman, 1977).

Scholars and researchers alike have long recognised the value of process evaluation, which surfaced around the 1970s (Pawson and Tilley, 1997). However, despite the numerous benefits associated with this method, its prevalence has increased remarkably slowly (Harachi *et al.*, 1999) and a consideration of process is still lacking from many evaluations (Gallant and Maticka-Tyndale, 2004; Harachi *et al.*, 1999).

As the primary aim of most HIV/AIDS education programmes is to effect behaviour change, outcome evaluations have been typically applied. These normally seek to quantitatively measure the extent to which an intervention has influenced the participants' 'knowledge, beliefs, intentions or behaviours', using indicators such as reported condom use, for example (Coyle, Boruch, and Turner, 1991).

Several reviews of evaluations of HIV/AIDS education programmes conducted around this period highlighted the relative absence of programme monitoring; for example, Kaaya, Mukoma, Flisher and Klepp's (2002) review of eleven school-based AIDS prevention programmes in sub-Saharan Africa found that only four included a consideration of the way in which the programmes had been implemented. Up until very recently, the majority of evaluations employed a quantitative approach to evaluation, attempting to measure impact through conducting randomised-control trials (RCT) and using methods such as questionnaires to generate outcome-level data. This resulted in many authors calling for more process evaluations to be conducted (Harachi *et al.*, 1999; Campbell and MacPhail, 2002; MacPhail and Campbell, 1999; Scott, 1992).

Noticeably, over the past five years, process evaluations have become more widely implemented in the field of Public Health generally (see, for example, Odendaal, Marais, Munro, and Van Niekerk, 2008) and in the field of HIV prevention specifically (see, for example, Ahmed, Flischer, Mathews, Jansen, Mukoma and Schaalma, 2006; Pettifor, MacPhail, Bertozzi, and Rees, 2007; Visser, 2007). However, a consideration of process is still lacking from many evaluations. In focusing solely on outcomes, numerous recent studies have continued to adopt the 'black box' approach to programme evaluation (Gallant and Maticka-Tyndale, 2004; Harachi *et al.*, 1999); (see, for example, Magnani, MacIntyre, Mehyrar Karim, Brown and Hutchinson, 2005; Pettifor, Kleinschmidt, Levin, Rees, MacPhail, Madikizela-Hlongwa, Vermaak, Napier, Stevens and Padian, 2005; Jewkes, Nduna, Levin, Jama, Dunkle, Khuzwayo, Koss, Puren, Wood, and Duvvury, 2006). Consequently, several authors over the past five years have continued to call for a more consistent emphasis on process (Oakley, Strange, Bonell, Allen and Stephenson , 2006), stressing the need for programme monitoring to be included in *all* evaluations of HIV prevention programmes (Kim and Free, 2008; McCreary, Kaponda, Jere, Ngalande, Kachingwe Kafulafula, Norr, Crittenden and Norr, 2008; Visser, 2005).

Understanding HIV/AIDS intervention programmes and their evaluation

Research suggests that the most effective HIV-intervention programmes are both highly structured and theory-based (Babbie and Mouton, 2006; Kirby, 2000; Smith, Dane, Archer, Devereaux and Katner, 2000). Structure, here,

refers to the extent to which a programme is developed in a logical, organised, theoretically consistent way, whereby clear relationships exist between the different components of the intervention. Rossi, Lipsey, and Freeman (2004) emphasise the need for programmes to be founded on an explicit 'programme theory' in order to ensure that they are conceptualised in such a way that the social problem is appropriately addressed. A 'programme theory' can be defined as "(the intervention's) plan of operation, the logic that connects its activities to the intended outcomes, and the rationale for doing what it does" (Rossi *et al.*, 2004, p.44).

Traditionally, HIV prevention programmes concentrated exclusively on providing information to the target audience (Campbell, 2003). Such information-based interventions tend to be based on socio-cognitive models of behaviour which "posit that people consider positive and negative features of preventive behaviours and the balance will influence their behaviour" (Eaton *et al.*, 2003, p.158). They have tended to adopt didactic pedagogical approaches (Campbell, 2003).

Information-based HIV/AIDS intervention programmes have come under criticism for being founded on the assumption that an individual's behaviour is the result of rational decision-making (Skinner, 2001; Selicow, 2005). To the contrary, there is an overwhelming body of evidence to suggest that sexual behaviour is rarely determined purely by individual, rational, choices (see, for example, Aggleton and Campbell, 2000; Campbell, 2003; Eaton and Flisher, 2000). Selicow (2005, p.47) describes the emphasis on rationality as "misguided", arguing that there is no "one objective definition of what rational behaviour is". Indeed, the very idea of applying scientific concepts of objectivity and rationality to something as personal and emotionally-charged as sexual behaviour seems inherently inappropriate. Much research suggests a disparity between knowledge and behaviour, with many people continuing to engage in high-risk sexual practices despite having relatively high levels of AIDS awareness (Campbell, 2003; Campbell and Mzaidume, 2002; Eaton and Flisher, 2000; Levine and Ross, 2002). While provision of information is an important pre-requisite for behaviour change, in isolation, it often fails to effect such changes (Hubley, 2000). Thus, campaigns focusing solely on information provision have been criticised for their focus on individual persuasion (Campbell, 2003; Eaton *et al.,* 2003; Skinner, 2001; Varga, 2001). Human beings do not live in a vacuum, but are influenced by a context to which they themselves contribute in shaping. Such information-driven models fail to take into account the numerous 'community and social processes'

which influence an individual's sexual behaviour (Campbell and Williams, 1998; Coulson, Goldstein and Ntuli, 1998; Furnham, 1988).

More recently, the most widely promoted approach to HIV prevention is peer education. The approach "typically involves training and supporting members of a given group to effect change among members of the same group" (Horizons, 1999, p.i). Unlike the information-based method, peer education adopts a participatory approach to education and places emphasis on context rather than content, with the aim of providing a space for participants to share ideas. There is much evidence to suggest that this approach, which rests on social constructionist identity theory, has a greater impact on HIV incidence and risk behaviour than information-based interventions (Horizons, 1999). The pedagogy of the peer educational approach will now be discussed in order to develop an understanding of processes behind its impact, a consideration of which constitutes an essential part of any comprehensive evaluation.

Freirian pedagogical principles form the cornerstones of the peer educational approach (Campbell and MacPhail, 2002). Freire (1972) argues that an individual must understand their given social situation before they can be expected to act on it; he promotes a 'problem-posing' approach to education centring on dialogue, whereby learners are encouraged to think critically. This focus on generating a safe space for discussion is particularly suited to HIV/AIDS intervention programmes as it responds to the sensitivity of the topic. The peer educational approach strives to develop a social environment that cultivates norms, values and identities which encourage sexual health (Gregson, Terceira, Mushati, Nyamukapa and Campbell, 2004).

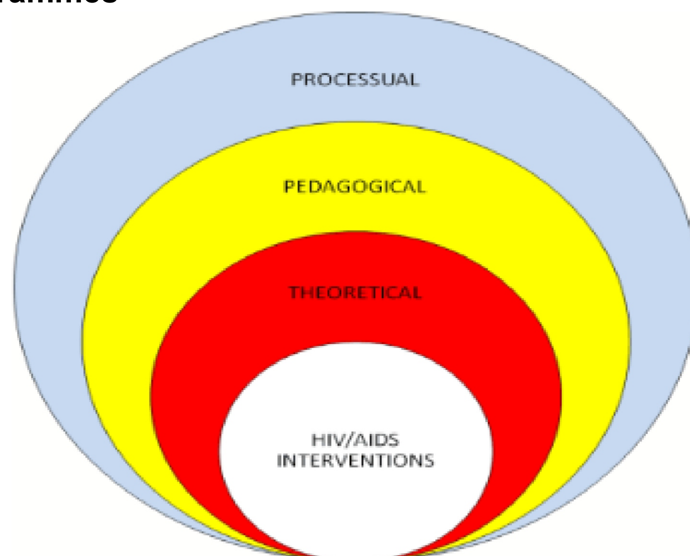
Freire (1972, p.31) argues that "educational projects . . . should be carried out with the oppressed in the process of organising them". Regarding beneficiaries as partners in the education process serves to empower those involved, giving them 'ownership' of the ideas whilst simultaneously tapping into the 'hidden strengths' of insider knowledge (Campbell, 2003; Selicow, 2005). In support of this, Uphoff, Esman and Krishna (1998) warn against adopting a 'cookie cutter' approach to education whereby an intervention is designed beforehand by an outside 'expert' and applied mechanistically across a range of social settings with no regard for local conditions. Interventions must instead be flexible and tailored to suit the needs of the target audience (Campbell, 2003; Varga, 2001). Aggleton (1991) emphasises that AIDS-education programmes must have a sound understanding of the target audience's specific sexual health needs.

Outcome evaluations have shown peer educational HIV/AIDS intervention programmes to be significantly more effective at impacting on HIV incidence and risk behaviour than information-based programmes (Horizons, 1999) but have not been helpful in highlighting why this is the case. In the light of this discussion this paper demonstrates how a process evaluation which incorporates a *theoretical* and *pedagogical* analysis has the potential to overcome this omission, through shedding light on the reasons behind an intervention's success or failure.

Towards a nuanced model for process evaluation

Emerging from the discussion above and what the paper advocates, is a model of process evaluation designed specifically for the systematic and comprehensive assessment of HIV/AIDS intervention programmes. The model proposes a multi-layered approach to evaluation and prompts a focus on three main categories: *theoretical, pedagogical*, and *processual.* While 'traditional' process evaluation models exist, they often emphasise pedagogical and processual aspects that need evaluation. The model we propose (see Fig. 1 below) extends this notion by promoting a more consistent and prominent focus on the *theoretical* orientation of HIV/AIDS intervention programmes through advocating a theoretical analysis of the pedagogical strategies employed.

Figure 1: A model for the process evaluation of HIV/AIDS intervention programmes



The processual category encompasses the evaluation of an intervention's structure, development, implementation and delivery. It is proposed that, through considering the relationship between the different aspects of an intervention and considering the way in which they were developed, it is possible to forge an understanding of the processes underlying project outcomes.

The second category promotes a focus on an intervention's proposed pedagogical orientation which can be unearthed through analysing the intervention's curriculum.

The third category advocates a focus on an intervention's theoretical orientation, be it implicit or explicit. This entails examining the ideological stance and programme theory of the intervention into consideration and through investigating the way in which HIV/AIDS, as a topic for education, has been conceptualised.

Implementing process evaluation: a case study

By way of illustration, what follows below is a description and analysis of a small-scale, HIV/AIDS education intervention programme. The aim here is to highlight the contribution of, and insights to be gained towards understanding of HIV/AIDS intervention programmes, through the application of the process evaluation model above. As already stated earlier in the paper, questions were posed on how process evaluation can be applied to assess HIV/AIDS intervention programmes, the factors that process evaluation illuminates that other types of evaluation do not, and the extent to which process evaluation responds to challenges posed by HIV/AIDS as a topic for education.

The project under scrutiny is one of a number of projects established by the University of Cape Town's 'Students' Health and Welfare Centres Organisation' (SHAWCO), a student-run Non-Governmental Organisation (NGO). At the time the research took place the project was still in its infancy, having been running for only a year. Each year new volunteers, participants, and committee members are appointed. The programme is delivered weekly, after school, in a community centre owned by the NGO to a group of fifteen 12–13-year-olds. As such, the study adopted a case study research design; the unit of analysis being a single HIV/AIDS intervention programme.

The methodological questions that framed the research process emerged from the model presented above. Therefore, questions had to be posed that corresponded, and facilitated an insight, to the categories identified in the model: processual, theoretical and pedagogical.

The 'processual' questions aimed to examine the structure, development, implementation and delivery of the intervention. These questions are typical of conventional process evaluation and prompted a holistic consideration of the intervention.

The 'theoretical' questions concerned the initiation and conceptualisation of the programme. These were aimed at unearthing the programme planners' interpretation of the problem. These questions aimed to reveal the 'implicit ideas behind' the intervention (Pawson and Tilley, 1997) and, therefore, to expose its ideological context and theoretical foundation or 'programme theory'.

The 'pedagogical' questions asked 'what is the proposed pedagogical approach?' and 'How suited are these techniques to HIV/AIDS as a topic for education?'

Gathering information took three forms, namely semi-structured interviews, participant observations and content analysis. The research reported here included voluntary participation. While all 22 project members involved in the project were invited to participate in an interview, less than a third agreed. Seven project members (four volunteers and three committee members) were interviewed; of these, two participated in follow-up interviews. In addition to this, another individual who had worked in conjunction with the previous year's committee at the time of the project's inception agreed to participate, making a total of eight respondents.

Semi-structured interviews were conducted with committee members and volunteers, face to face, at various stages throughout the programme's first term in order to gain insight into the nature, for, process and outcome of the intervention. Interview guides were shaped by the model developed and focused on the three areas highlighted above. Each interview was between 30–90 minutes. Questions focused on the viewpoints of committee members and volunteers in order to gain an inside, subjective perspective of the intervention. Interviewing the learners themselves would have been preferable but, due to the ethical issues surrounding research with minors, this was not possible within the confines of the study.

Another source of data was participant observation. One of the authors fulfilled a 'researcher-participant' role (Gans, 1968, cited in Bryman, 2001) in that she attended meetings as well as programme intervention sessions. Observations, therefore, took two forms; first detailed field notes taken during and after all committee meetings, general staff meetings and training sessions and, second, classroom observations that were conducted during each of the four lessons.

Finally, qualitative content analysis was used to examine the programme's curriculum which provided insight to the intervention's pedagogical and theoretical stance.

Data was analysed largely inductively, but in the light of the theoretical and conceptual frameworks. The documents (interview transcripts and observation notes) were coded into different categories (as advocated by Miles and Huberman, 1994). Analytic memos were recorded in order to maintain consistency on the boundaries of each category (Strauss, 1987). The qualitative software package 'Nvivo 8' was used to code the data, which facilitated the systematic organisation, retrieval and analysis of data (De Wet and Erasmus, 2005). The coding process was performed continually as the data was generated, thus allowing each interview or observation to shape the direction of the next. The interview guides and observation schedules were continually revised and refined as new issues arose throughout the research process. Next, clusters and hierarchies of information were identified, establishing relationships between the categories. Segmenting the data in this way provided structure and continuity to the results, and increased the credibility of the resulting synopsis. Finally, the resulting descriptive information and the project's official curriculum were critiqued in order to establish what appeared to be missing from the programme.

The aspects that were drawn from the texts were framed by the theoretical and conceptual frameworks but I was not following any specific, pre-defined criteria. For example, the theoretical and conceptual frameworks suggested that certain pedagogical strategies (such as dialogue and participatory techniques) are more likely to be successful in effecting behaviour change than others; so during my analysis of the lesson plans I was looking for evidence of dialogical or didactic teaching styles in order to enhance my understanding of the project under evaluation.

Findings

Applying the proposed model of process evaluation generated both a 'natural history' of the programme (Scott, 1992) and an outline of its curriculum. Six distinct areas of interest emerged during the research process. These were: background and conceptualisation of the project, training, curriculum development, proposed content and pedagogy, implementation and running of the project, and project members' feelings about the project.

Background and conceptualisation of project

Despite the fact that this study focused specifically on the project's second year, it was important to investigate its history so as to frame the study, contextualise the results, and shed light on the intervention's ideological stance.

An in-depth interview with the Project Leader revealed some ambiguity over what prompted the establishment of the project in the first place. When asked about the initial rationale behind the intervention, he responded as follows:

> *. . . if I look at the way (the project) started, it started because of a question a volunteer was asked in one of the lessons (from another project within the same NGO). They were doing an AIDS day, like all the projects should do, and one of the learners asked a volunteer 'Do you always use a condom when you have sex?' and she couldn't answer the question, she gave a very bad answer and basically said 'I'm uncomfortable answering that question' which is not the type of answer I think we should be giving. . .*

Whether this incident was seen to be illustrative of a more general social problem was not made clear. It also emerged that there was no policy guiding the initiation of the project.

When asked about the aims of the project, the project leader claimed that he intended to 'give (the learners) a wakeup call', 'to provide accurate information of all the topics' and to encourage 'informed decisions'. However, these ideas were never put in writing and appeared subject to continuous revision. Even well into the first term of the project, the project leader admitted that his ideas kept 'changing and evolving'.

In a preliminary interview the project leader was asked to outline the focus of the programme. He made reference to a number of social problems, stating that

> *. . .the whole goal of (the NGO) is to get the learners through to matric and on into university and then on into the big wide world . . .our hope is to do some sort of behavioural change intervention while they're still young enough and hopefully . . . the learners will come out and be a better part of the community,*

thus illustrating that the project's intended outcomes were wide-ranging and vaguely defined. During the same interview, the project leader expressed a desire to include '*issues around HIV/AIDS, sex and sexuality and any other social issues that (the learners) may be dealing with in their communities'* within the scope of the project and went on to explain that the project aimed to influence 'the choices and decisions (the learners) are going to make about their future and their bodies, while they are still young enough'. In addition to this, the project leader and the curriculum planner emphasised the importance of improving the participants' reading and writing skills.

Training

The training took place at the same time as, but independently of, the development of the curriculum. Interestingly those responsible for planning the curriculum did not attend, and were unaware of the content of, the training sessions. The researcher's attendance of the training sessions revealed that there was no explicit reference to the project's aims and objectives or intended outcomes.

There were four training sessions in total, each lasting for 1–2 hours. Attendance ranged from seven to eleven (out of a total of 14) volunteers. Training was provided by two external organisations. The first organisation provided basic, information-based, training on the science of HIV/AIDS and the other provided training in participative pedagogies.

Feedback on the training was mixed. Volunteer 4 thought the training was *'great',* and believed that *'. . . using art and drama to teach about HIV/AIDS is a good way forward'.* Others regarded the content of the drama workshops as being 'common sense', or as diverting attention from the more important issue of information provision. For example, Volunteer 6 said of these workshops:

> *I don't think (the drama-based training) helped me phenomenally. . . in anything. What did help, the only thing that helped was the very first one, where they actually explained how the virus works. The other ones weren't that useful to me. I mean they were fun but that didn't help me to now go out and teach.*

Curriculum development

The curriculum was developed by the appointed 'curriculum planner' and the project leader. My interview with the former revealed that she received very little guidance on how to develop the curriculum. With regards to this she said,

> *. . . I was given the curriculum from last year and I was told, this is not what we wanna do, we want something different . . . so, ja, I didn't have any aims and objectives. I kind of came up with my own.*

She was unaware of a needs assessment that had been conducted by the previous year's volunteers, which the project leader had previously informed me would form the basis for the project in its second year.

The curriculum planner explained that she had initially developed a curriculum independently, based on her own research which entailed visiting websites, studying her younger brother's life orientation books (part of the South African National Curriculum), visiting her former primary and secondary schools to borrow resources and ask for advice from the life orientation teachers, and going to a clinic in Gauteng (one of nine provinces in South Africa) to obtain literature on HIV/AIDS. The curriculum was developed independently of the training (as well independently of input from the rest of the team). The project leader did not attend the sessions for the first half of the semester and the curriculum planner did not attend at all.

Curriculum: proposed content and pedagogy

The start date for the project was postponed, leaving time in the first term for only four lessons. As mentioned previously the curriculum was completed behind schedule, which resulted in the volunteers having to improvise for the first two sessions. In total, two short lesson plans were provided for the project's first term (Sessions 3 and 4).

The lesson plans focused on the provision of information and gave direct instructions as to the issues that should be covered; including directions for how long should be spent on each activity. For example, Session 3 centred on providing information about the transmission of HIV. This included, first, information about the ways that the virus can be transmitted (cited as unprotected vaginal or anal sex, and transmission through blood), second, a description of what opportunistic infections are, and, third, scientific information about how the HI-virus invades a CD4 cell and reproduces. This was followed by a scientific explanation of why there is higher HIV prevalence among women than men. Reasons given included the fact that 'there is a higher concentration of HIV present in semen than vaginal fluids' and that 'younger women are more prone due to the fact that their genital tract isn't fully mature and vaginal excretions aren't copious and therefore prone to mucosa lacerations'.

The activities proposed in the curriculum centred on reading and writing. The participants were issued with 'learner manuals' and instructed to fill in worksheets, complete diagrams and create information sheets. There was no emphasis on informal dialogue, although the lesson plans did instruct volunteers to 'discuss worksheets with the learners' and to 'ask the learners if they understand'.

The feedback on the curriculum was overwhelmingly negative. All of the interviewees who spoke about the curriculum during the course of the interview, did so in a predominantly critical light. Of the 17 segments of the data that were categorised as 'project members' opinions on content', fourteen were negative and three were positive. The curriculum was criticised for being too conventional and not interactive enough.

Implementation and running of the project

Since no lesson plans were provided for Sessions 1 and 2, the volunteers chose to focus predominantly on the provision of information, covering issues such as condom use, the 'window period' and non-sexual transmission. In addition to this, the volunteers attempted to explore participants' feelings and opinions on HIV/AIDS and their attitudes towards people living with HIV through posing questions such as 'what would you do if someone you loved had AIDS?' Discussions tended to jump from one issue to the next, with no real structure or continuity and many questions were left unanswered. This, it would seem, was largely due to there being no lesson plans to frame the sessions.

For Sessions 3 and 4, and while the proposed content was loosely followed, the suggested time plan was not adhered to and, without exception, the lesson plans were not completed. The sessions also centred on information provision with little or no time being spent discussing the participants' opinions, feelings or attitudes.

As stated above, the lesson plans proposed a traditional teaching style whereby the participants were to be prompted to take turns to read aloud and complete worksheets, but this did not occur in practice. The volunteers split the learners into groups of four or five. Despite the fact that the lesson plan gave only one instruction to initiate a discussion, in practice the sessions maintained a question and answer format, with significantly less time being devoted to reading aloud and little or no time being spent writing (depending on the group).

The volunteers frequently encouraged the participants to raise questions and to discuss certain issues in more depth, as opposed to adhering rigidly to the curriculum. However, while the participants were given the opportunity to shape the course of the sessions to a certain extent, the volunteers remained very much in control of the agenda with regards to both form and content.

The observations revealed a number of factors which had a detrimental impact on the delivery of the curriculum. These included high noise levels, a shortage of space, a lack of engagement from the learners and a lack of leadership and organisation on the part of the volunteers and project organisers.

Project members' feelings about the project

Despite the challenging circumstances that the project members were faced with, three out of the four volunteers who were interviewed offered some positive feedback about the project. In particular, the volunteers reported enjoying the discussions when they were flowing well. For example, Volunteer 4 said

> *. . . it was really good, ja, we had the boys and (volunteer 3) was really into it. . . I think it was quite a good atmosphere I really liked it.*

Similarly, Volunteer 2 said

> *The first session I thought was really good, I liked the way we had the big circle and we were all kind of in one group. . . I think it's going well I think it's a really good cause so I don't mind all the mess-ups and everything we have.*

However, reports of feeling 'disappointed', 'frustrated', 'demotivated' or simply 'sad' at how the project had turned out were considerably more common among the respondents; the data coded under 'project members' feelings about the project' consisted of 4 positive and 21 negative comments.

Discussion

The aim of the study the paper draws on was to highlight the understanding that can be gained through the application of the process evaluation model advocated here (see figure 1, p.121). What follows is a synopsis of the insights that were gained, which might have been overlooked in other forms of evaluation.

Insights gained through the application of the process evaluation model

The research revealed a number of factors which, it is argued, detracted from the intervention's potential for empowerment and the collective renegotiation of social identities – identified as 'key preconditions for programme success' (Campbell and MacPhail, 2002). These were: first, a lack of structure and theoretical grounding; second, the absence of a needs-based approach; third, a lack of ownership; fourth, the adoption of a didactic teaching style and finally, a de-contextualised, information-based approach.

It has been argued in this paper that the most effective intervention programmes are both highly structured and theory-based (Babbie and Mouton, 2006; Kirby, 2000; Smith *et al.*, 2000). The findings suggest that the project under evaluation was lacking in both respects. The different elements of the programme (aims and objectives, intended outcomes, training and curriculum) were developed independently of one other, resulting in a lack of consistency on many levels. For example, the aims and objectives (which were in fact never finalised) did not shape the curriculum and the training did not correspond directly to the material the volunteers were expected to teach.

The ambiguity over the project's aims, objectives, and intended outcomes (apparent in comments such as 'some sort of behavioural intervention' and 'be[ing] a better part of the community' indicates a lack of clarity and structure in the project's conceptualisation. A lack of clearly defined, explicit, goals can have detrimental repercussions, both for the accomplishments of the project itself (in deeming it directionless) and for the evaluation of outcomes (Babbie and Mouton, 2006; Rutman, 1977).

The research revealed that the programme had no explicit theoretical foundation, an omission which manifested itself in several ways. For example, the volunteers' contradictory accounts of the appropriateness of the training indicates that they had contrasting ideas about the pedagogical stance of the intervention and results from a lack of programme theory.

The findings indicate that the project did not adopt a needs-based approach; identified by Aggleton (1991), Campbell (2003) and Varga (2001) as essential for the development of appropriate and effective interventions. For example, the project leader's account of the rationale behind the project suggests that it was founded in response to a single interaction between a student volunteer and a participant from another project within the same NGO. This presumably was understood to be typical of a more widespread issue, namely the lack of opportunities young people have to talk openly about sex and HIV/AIDS. While it is possible that this specific incident is characteristic of a more general problem, there is no evidence to suggest that the project is addressing the specific sexual health needs of the participants. The curriculum planner developed the curriculum based on her own independent research; she did not consult with the learners and was unaware of the needs assessment that had been conducted by the previous year's volunteers.

Ownership was highlighted earlier as an empowering process that contributes to the development of appropriate interventions. (Campbell, 2003; Selicow, 2005). Several aspects of the programme emerged as undermining the participants' potential for ownership. For example, the observations revealed that the participants were denied the opportunity to influence the direction of the sessions to any extent and there was little evidence of the participants being involved as partners in any stage of the intervention. While some dialogue did occur, the discussions were largely controlled by the volunteers; the nature of the interaction (with volunteers posing questions and learners raising their hands to answer) did not constitute an open forum for discussion. This meant that the participants were largely denied the opportunity to influence the direction of the discussions, which is likely to have detracted from their sense of ownership.

The curriculum recommended traditional teaching methods and placed a great emphasis on reading aloud and writing. Whilst not strictly didactic, these proposed pedagogic strategies do not diverge far from the underlying principles of this approach; namely, that the participant is a passive recipient of information rather than a contributor or partner in the education process.

The findings demonstrate that the project privileged an individualistic, information-based, approach. The lesson plans are focused almost purely on the provision of factual, scientific information. For example, the lesson plan provided a scientific explanation of why there is higher HIV prevalence among women than men. This account constitutes an individualistic stance in that it overlooks social factors such as gender inequalities which, research suggests, contribute to higher HIV prevalence among females (Campbell and MacPhail, 2002; Gregson, *et al.,* 2004).

The contribution of process evaluation to HIV/AIDS intervention programmes

The findings demonstrate how process evaluation makes visible aspects of an intervention that other types of evaluation do not. Through a focus on context, interaction and understanding, the research in this paper highlights key omissions from the project under evaluation and draws attention to its inherent contradictions, ambiguities and conceptual problems.

The process evaluation model allowed a programme's theoretical and pedagogical orientation to be unearthed and critiqued and for problematic issues to be noticed as and when they occurred. The application of the model also revealed some of the detrimental effects of developing an HIV/AIDS intervention programme without a solid structure or a firm, appropriate, theoretical grounding; aspects that would not otherwise be noticed in summative forms of evaluation.

A process evaluation that takes account of processual, theoretical and pedagogical factors has the capacity to respond to the complexity of the HIV/AIDS epidemic and thus can enable the development of more appropriate, comprehensive, and effective HIV/AIDS interventions

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