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THEORIES AND MODELS SERVING AS A BASIS FOR THE DESIGN OF AN HIV/AIDS PREVENTION PROGRAMME FOR STUDENTS

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1. INTRODUCTION

In any intervention programme a distinction can be made between background theories and approaches and the intervention programme itself. All intervention programmes have one or a combination of background theories as their basis (Sheafor, Horejsi & Horejsi, 1997:20). In this article a summary will be given of the most important approaches in dealing with HIV/AIDS amongst young people.

Attention will first be devoted to the elements that make an HIV/AIDS prevention programme successful. The reasons why programmes fail will also be dealt with. This will be followed by a discussion of the use of peer leaders to present the programme. Four of the most commonly cited theories in HIV prevention literature will then be outlined, namely the Health Belief Model, the AIDS Risk Reduction Model, the Stages of Change and the Theory of Reasoned Action.

After making a thorough study of applicable theories and models, the researchers recently conducted research on the development of an HIV/AIDS prevention programme for students. The way in which the theoretical content related to the research study will be outlined. For easy identification this content will be printed in bold letters.

Styles of HIV-related prevention work aimed at young people have changed over the years. Early in the epidemic individualistic approaches based on theoretical frameworks such as the Health Belief Model and Social Learning Theory were quite common. They emphasised the importance of helping young people to acquire accurate information and skills relating to the prevention of HIV/AIDS. It was assumed then that if young people could only develop appropriate knowledge and skills, they would be able to change their behaviour in order to enhance their sexual health. However, such approaches are now recognised as being over-simplistic and are criticised for failing to take account of contextual, environmental and structural factors, such as the effect of migration, war and inequalities influencing young people's choices, actions and behaviours (Rivers & Aggleton, 1999:9).

By the mid-1980s it was well appreciated that individuals do not always control their own risk situations. In the most extreme circumstances young people living in stressful situations may, for example, engage in survival sex in order to meet their need for shelter, food and adult protection. In such precarious circumstances young people are not well placed to make rational decisions on the basis of new information or to practise newly acquired skills. This led to the development of prevention programmes aimed at enabling particular risk groups to adopt safer behaviour (UNAIDS, 2000b:107).

The middle years of the epidemic were characterised by the increasing development of HIV prevention programmes aimed at community level. These programmes shared an acknowledgement that decisions about behaviour, including sexual decision-making, are made in the context of shared social experiences (UNAIDS, 2000b:108).

More recently researchers and practitioners working with young people for the prevention of HIV/AIDS have shown an interest in bringing about structural and environmental change. Young people are constrained in their behaviours by social, economic, legislative and other factors that are beyond their personal control. Gender inequality, for example, means that many young women across the world are not able to participate as equal partners in sexual decision-making and cannot easily control their sexual health. There is now widespread acknowledgement that HIV prevention programmes should follow a two-pronged approach. Firstly, they should address public policy concerns so as to enable young people to protect their sexual health, while at the same time persuading them to take action that helps to protect them from becoming infected with HIV (Rivers & Aggleton, 1999:9).

2. STRATEGIES FOR PREVENTION PROGRAMMES

HIV-related prevention among young people must continue to be given a high priority, since working with young people will have a significant impact on the future course of the epidemic. Those working with young people now have access to an increasing body of knowledge about successful approaches to use. There are a number of programmes available, therefore there is no need to reinvent the wheel when designing a new programme. The most effective prevention programmes have the following characteristics:

2.1 Well-defined programme goals and targets

A clear statement of programme goals should be made in a strategic plan. It should include an overall goal such as the following: 'to reduce transmission of HIV and minimise its negative impact on those infected and affected', and then more specific goals for particular areas of prevention and care, for example 'to reduce sexual transmissions among adolescents'. The programme goals will indicate the areas in which progress might be expected and therefore the areas in which it might be measured (UNAIDS, 2000a:14). In the research study on students the overall goal of the tested programme was to prevent HIV/AIDS transmission among students on the campus. Small group and peer network intervention were utilised to enhance knowledge and understanding and to change attitudes towards HIV/AIDS and risk behaviour. In the prevention programme objectives for each session were specified so that attain those objectives would result in achieving the overall goals.

2.2 Responsiveness to diversity

Programmes that fail to recognise diversity in young people and provide opportunities to think about and talk about gender and sexuality, for example, are rarely successful (Maritz, 2001:4; Rivers & Aggleton, 1999:12). When the programme was designed, the researcher took into account that the students came from different geographical areas and different educational backgrounds. It would have been wrong to assume that all the students had the same value systems and beliefs. Therefore the programme had to make provision for the diversity among young people. In the discussion of value systems, for example, group members were encouraged to speak openly and without fear of being judged. To some group members alcohol and sexual relationships were taboo, while for others sexual activities and alcohol abuse were acceptable. Group leaders also had to be sensitive to cultural differences when discussing relationships. For example, in the black community women are viewed differently than in the white community.

They focus on young men's sexual health needs as well as those of young women. Gender inequalities have serious consequences for adolescent sexual health (Rivers & Aggleton, 1999:13). The researcher was careful not to discriminate between men and women, as most of the students

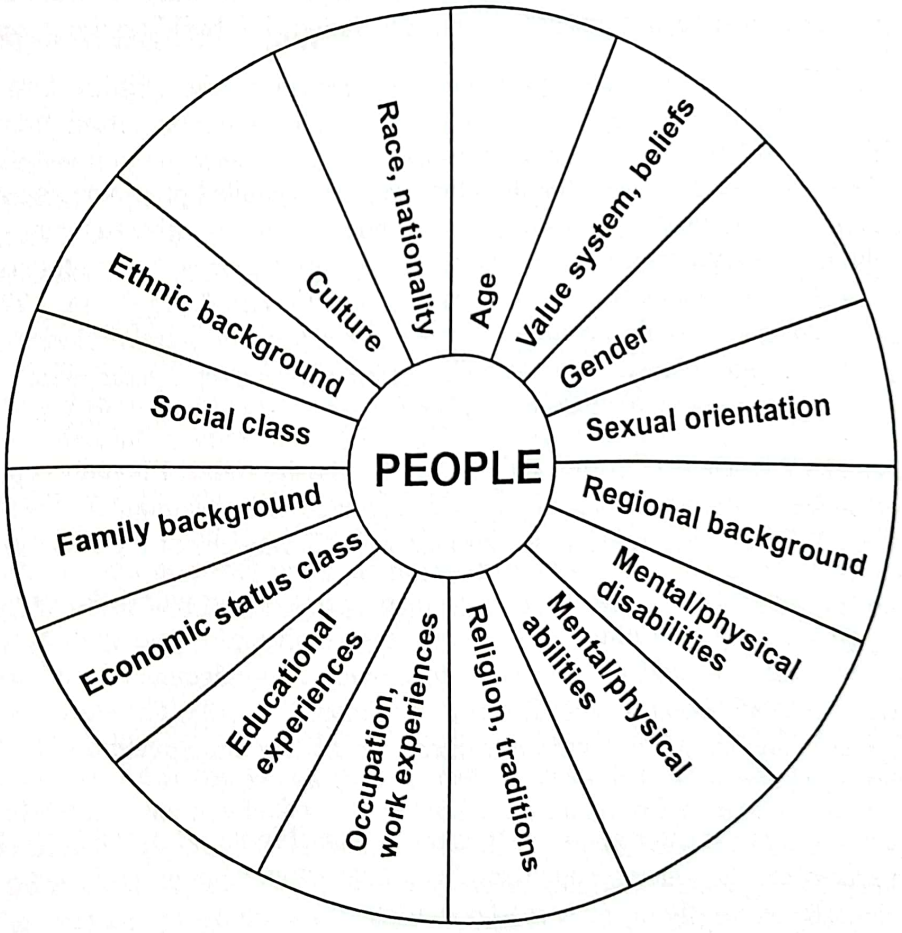
believe in equal rights and opportunities for both sexes. The sample included both sexes, giving everybody the opportunity to express his or her opinion.

Many programmes have been criticised for not taking into account the woman's role in a sexual relationship when the programmes target women to promote the use of condoms. A woman is only one participant in decision-making, but current programmes have a tendency to rely on women's ability to change men's sex behaviour (Venier, Ross & Akande, 1997:314). During the group discussion of relationships with the opposite sex, it was emphasised that both parties in the relationship had a responsibility in practising safer sex.

Programme development should take place within the context of the cultural beliefs and values as well as behavioural and educational norms of the target community (Department of Health, 1994:14; Trussler & Marchand, 1997:51; World Health Organisation, 2000:12/10). Understanding a population's attitudes to and concerns about sexuality is essential in any programme designed to prevent sexually transmissible diseases (Venier *et al.*, 1997:314). The target group was university students, which meant that they had above-average intellectual capacities and could digest difficult learning material. Most of the students were from an Afrikaans and conservative background.

The following figure gives an idea of the degree of diversity among people:

FIGURE 1
THE DIVERSITY WHEEL



Programmes are timely with regard to sex and HIV-related prevention. There is evidence to suggest that young people across the world are having sex earlier than in the past and this fact

should be taken into consideration (Rivers & Aggleton, 1999:13). The students are at an age where they enjoy more autonomy away from their parents and their new freedom makes it more possible to experiment with sex, alcohol and other risk behaviours.

2.3 Promote skills

According to Bandura's social learning theory, self-efficacy is the most important prerequisite for behaviour change. Self-efficacy affects the amount of effort an individual will invest in a given task and the performance levels which are attained. Bandura (1977) argues that self-efficacy is the conviction that one can successfully execute the behaviour required to produce a particular desired outcome and that self-efficacy functions as a critical unifying variable in understanding behaviour change (Venier *et al.*, 1997:314). The programme promoted self-efficacy with the students.

A life-skills training or prevention programme needs to be flexible and should take the physical, emotional, psychological and social developmental level of the target group into account (Department of Health, 1994:14). The programme was in line with the physical, emotional and social development of the students, because they played an active role in its planning and evaluation.

The development and establishment of personal attitudes and skills should be regarded as a continuous integrated process, conveyed through appropriate education which is introduced differentially and progressively during the various phases of adolescent development (Department of Health, 1994:14; Rakoma, 2000:185). During their school years the students were subjected to skills training and sex education, and this programme was designed to build on and strengthen that which they had learned.

2.4 Focus on health aspects

They focus on the positive aspects of sexual health as well as unwanted pregnancies and sexually transmitted infections. Programmes should pay attention to the positive aspects of human sexuality, including sexual pleasure. Programmes that do not offer relevant and realistic accounts of sexuality are unlikely to be well received by young people (Rivers & Aggleton, 1999:13). The programme made provision for a discussion of the negative aspects of premarital sexual relationships, but it also included a session on the relationship between the sexes with the aim of encouraging satisfying and enriching relationships.

They promote greater awareness of sexual and reproductive health rights. Prevention programmes will also only succeed where human rights are respected and maintained (World Health Organisation, 2000:12/10). These aspects were also discussed during one of the sessions.

They offer improved access to health services. In many parts of the world the broader social, economic and political context within which young people live can constrain their ability to protect themselves. Efforts should thus be made to provide non-judgemental and user-friendly sexual health services to all young people (Rivers & Aggleton, 1999:13). The students were given information on places and people in their areas where counselling and advice on HIV/AIDS and related matters were provided.

They include messages about safer sex as well as abstinence (Maritz, 2001:3). They help young people to gain access to good-quality condoms. The session on prevention included a discussion on safer sex, with reference to the correct use of condoms.

2.5 Recognition of the importance of open communication

The climate within which the programme takes place is an important contributing factor to the success of a programme. The creation of an environment based on respect, trust and acknowledgement of differences will facilitate the growth of knowledge and the development of skills. The students who acted as facilitators were trained in the method of group work and knew how to create a climate of respect and trust.

Because life-skills training often involve consideration of personal feelings, values and behaviour, both educators and young people should feel safe to express themselves freely and explore ideas without fear of criticism and reprisal messages. One of the important aspects which the students learned from their group work training was to encourage the group members to speak freely. In the contract with the group members they pledged to respect each other's feelings and opinions, and apply the principle of confidentiality.

They work in a climate of openness that recognises the realities that young people face. Where open channels of communication are absent, or where there are suspicions about the motives of adults, young people may be hindered from protecting themselves from HIV infection. Young people interviewed in Kenya, for example, suggested that AIDS was a scare campaign perpetrated by older people to prevent them from enjoying sex (Rivers & Aggleton, 1999:12). The programme was presented by students for students in order to ensure that they were on the same wavelength and understood each other's viewpoints.

2.6 Provision of well-trained facilitators

The selection and training of persons who will present a programme are of the utmost importance in the successful implementation of a life-skills training programme (Maritz, 2001:6; Rakoma, 2000:185). Well-equipped, well-trained and supervised presenters will have an influence on the young people with whom they interact (Deutsch, 2001). The students who acted as facilitators received intensive training before and during the implementation of the programme. They were first subjected to the content of each session themselves before they held their own groups.

An HIV prevention curriculum tailored to the needs of youth (Becker & Barth, 2000:280; Saloner, 2001:1) must recognise the importance of providing sufficient training to facilitators in topic areas related to sexuality in order to prepare them adequately to answer many questions. The training of the students included information about HIV/AIDS and other sexual matters.

They provide training to educators in providing sex education and developing confidence in talking to young people about sex (Saloner, 2001:1). During training it was emphasised that the students should be well prepared on an administrative, emotional and intellectual level for each group meeting. In other words, if they were certain of what they had to do, they would be able to handle the group with confidence. The preparation also helped them to talk openly about sexual matters.

In an HIV prevention curriculum tailored to the needs of young people (Becker & Barth, 2000:279), feedback from the young people made it clear that the facilitator's teaching style greatly affected the manner in which the programme was received by them. Those facilitators who took time to establish rapport with the youths, who demonstrated respect for them, and listened to their needs, were most effective in conveying the curriculum's message. The training of the students in the method of group work enabled them to establish good relationships between themselves and the group members.

2.7 Mutual acceptance of the programme

The development of strategies that will gain acceptance is an integral part of the planning process. Collaboration with, and support of, relevant stakeholders should be obtained prior to implementation (Department of Health, 1994:14). The Dean of Students, as well as important role-players involved in HIV/AIDS education at the university were asked for their permission to develop a programme on campus. The students who acted as facilitators were also consulted the previous year about the proposed research, the format of the questionnaire and the content of the programme. The proposed programme had the necessary flexibility to accommodate differences.

Young people must become genuine partners in dialogue and decision-making (Rakoma, 2000:188; Rivers & Aggleton, 1999:12). During their training, the group workers had the opportunity to make comments and recommendations about the proposed sessions. They would say whether an ice breaker, programme media or topic for discussion would be suitable for a session. The groups consisted of students, with students as facilitators.

An assessment of the knowledge, attitudes, concerns and behavioural needs of the youth at whom the programme is targeted, as well as of those who work with them, should be incorporated into the planning phase of any life-skills programme. It should never be based only on the perceptions and expectations of those who develop the programme. Because the researcher is a lecturer at the university, she had inside information on the feelings, opinions and knowledge of the students. Before the programme was designed, the students at the university had to complete questionnaires on their attitudes, beliefs and level of knowledge on HIV/AIDS and related matters, which provided the database for the planning of the programme.

Programmes that are interesting, entertaining and interactive are easily accepted by stakeholders. The programme was designed to provide ample opportunity for fun and creativity, as refreshments, ice breakers, games, interesting topics, scenarios and role-playing were included in the sessions.

After taking the above-mentioned into consideration, the researcher recommends the following framework as a broad outline of aspects to be incorporated into a prevention programme:

TABLE 1
FRAMEWORK FOR A PREVENTION PROGRAMME

PHYSICAL SELF	EMOTIONAL AND PSYCHOLOGICAL SELF	SOCIAL SELF
Human sexuality: - sexual response cycle - sexual diseases - contraception - pregnancy	Further development of: - self-assertion - self-esteem	Relationships with: - family - peer group - opposite sex
	Handling of emotions: - depression - suicide	Communication skills
Healthy life style: - smoking - alcohol & drugs - unsafe sex - abnormal behaviour, e.g. bulimia	Responsible decisions:	Stabilising one's own identity - gender roles - stereotypes
	Sexual deviations: - rape - abuse - homosexuality	

3. DIFFERENT BEHAVIOURAL MODELS

In this section the four models that were used to design an HIV/AIDS prevention programme will be discussed. These models all have in common the theory that perceived risks and benefits of behavioural change predict the likelihood of behaviour change as well as guide the approach to behavioural interventions (Wang & Celum, 2000:43). These theories have yet to be extensively applied in research outside the United States and they may not capture the elements necessary for behavioural change in every culture or population. They do provide, however, four examples of how the behavioural change process is believed to occur.

3.1 The Health Belief Model (HBM)

3.1.1 Description of the model

The Health Belief Model is a psychological model that attempts to explain and predict health behaviours by focusing on the attitudes and beliefs of individuals. The HBM was developed in the 1950s as part of an effort by social psychologists in the United States Public Health Service to explain the lack of public participation in health screening and prevention programmes. Since then the HBM has been adapted to explore a variety of long- and short-term health behaviours, including sexual risk behaviours and the transmission of HIV/AIDS. The key variables of the HBM, according to Rosenstock, Strecher and Becker (1994:5-24), are as follows:

- Perceived Threat: This consists of two parts, namely
  - Perceived Susceptibility: One's subjective perception of the risk of contracting a health condition.
  - Perceived Severity: Feelings concerning the seriousness of contracting an illness or of leaving it untreated.
- Perceived Benefits: The perceived effectiveness of strategies designed to reduce the threat of illness.
- Perceived Barriers: The potential negative consequences that may result from taking particular health actions, including physical, psychological and financial demands.
- Cues to Action: Events, either bodily or environmental, that motivate people to take action. Cues to action is an aspect of the HBM that has not been systematically studied.
- Other Variables: Diverse demographic, socio-psychological and structural variables that affect an individual's perceptions and thus indirectly influence health-related behaviour.
- Self-Efficacy: The belief in being able to execute successfully the behaviour required to produce the desired outcomes. According to Ozer and Bandura (1990:472), perceived self-efficacy is concerned with people's belief in their capabilities to mobilise the motivation, cognitive resources and courses of action needed to exercise control over given events.

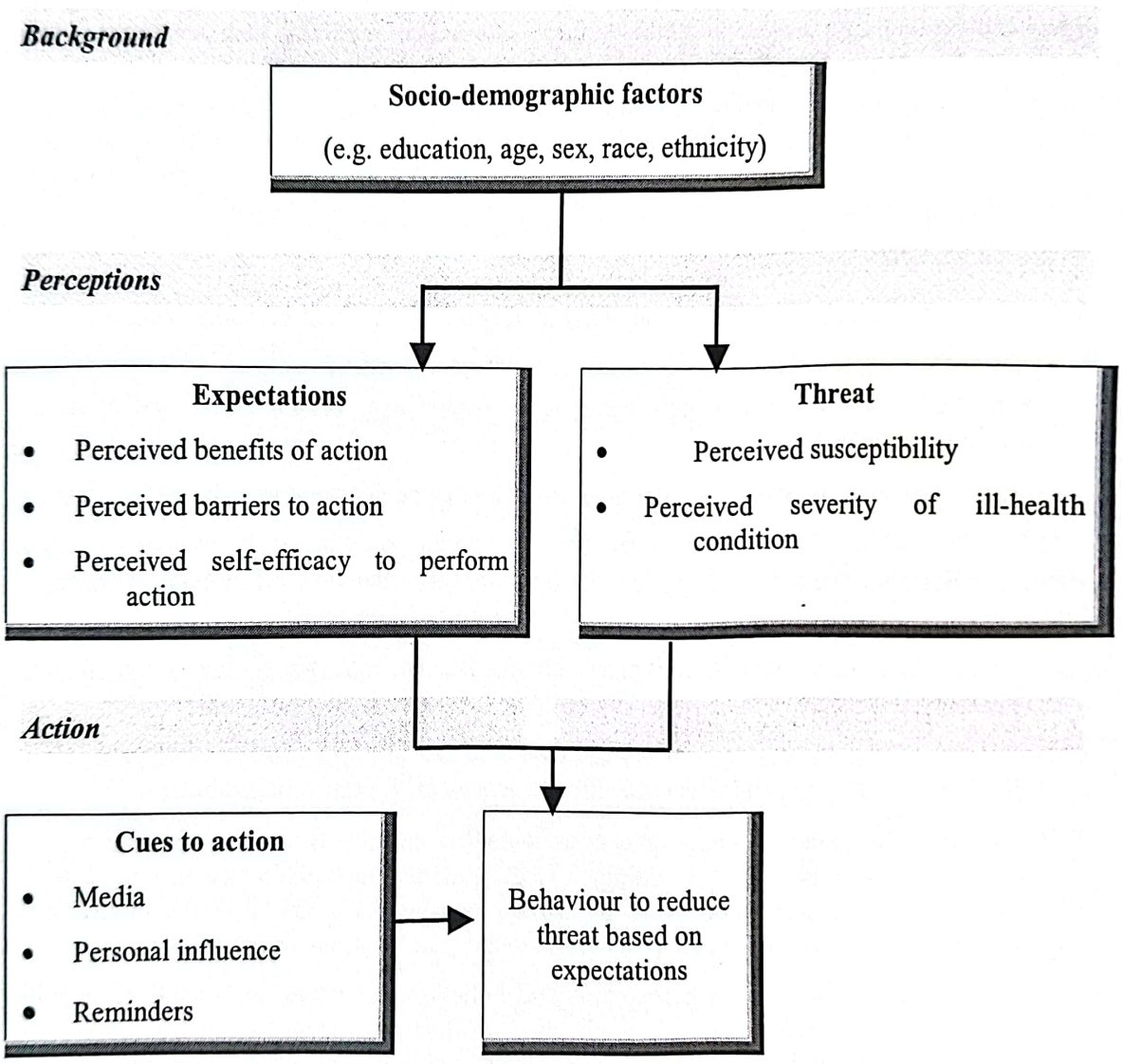
According to this model, a person's perceptions and beliefs about health and health risks will determine his or her health behaviour. The implication of this is that prevention programmes will have to focus not only on skills and knowledge, but also on attitudes and beliefs of people.

3.1.2 Implications for health behaviours

HBM research has been used to explore a variety of health behaviours in diverse populations. For instance, researchers have applied the HBM to studies that attempt to explain and predict

individual participation in programmes for influenza inoculations, Tay-Sachs carrier status screening, high blood pressure screening and breast self-examination. With the advent of HIV/AIDS the model also has been used to gain a better understanding of sexual risk behaviours. Researchers suggest that an individual's perceived ability to carry out a health strategy successfully, such as using condoms consistently, greatly influences his decision and ability to enact and sustain a changed behaviour. Participation in these studies, most of which were conducted in the United States, include people from the general population, homosexual men, adolescents and pregnant women. Research designs also vary from longitudinal to cross-sectional and from retrospective to prospective studies (Denison, 1996:2-3).

FIGURE 2
THE HEALTH BELIEF MODEL



(Rosenstock et al., 1994:5-24)

3.1.3 Limitations

According to Denison (1996:3), general limitations of the HBM include the following.

- Most HBM-based research to date has incorporated only selected components of the HBM, thereby not testing the usefulness of the model as a whole.
- As a psychological model it does not take into consideration other factors, such as environmental or economic factors, that may influence health behaviours.
- The model does not incorporate the influence of social norms and peer influences on people's decisions regarding their health behaviours, something to consider especially when working with adolescents on HIV/AIDS issues.

3.1.4 Utilisation of the model in this research programme

According to Mullen, Hersey and Iverson (1987:973-981), the HBM states that readiness for action stems from an individual's perception of the threat of an undesired outcome and the likelihood of being able, through personal action, to reduce that threat. In the research study the students realised that the contraction of HIV was a reality and that everyone was at risk of contracting the disease. They admitted this during group discussions after they had received information on the transmission of HIV/AIDS and the serious consequences and effects of the disease. It made them realise that they had a responsibility to prevent HIV/AIDS on campus. The programme's skills-building approach, like the improvement of communication, and its focus on youth empowerment also sought to increase participants' perceptions of their own abilities to reduce the threat of HIV/AIDS.

3.2 Aids Risk Reduction Model (arrm)

3.2.1 DESCRIPTION OF THE MODEL

The AIDS Risk Reduction Model (ARRM), introduced in 1990, provides a framework for explaining and predicting the behavioural change efforts of individuals specifically in relation to the sexual transmission of HIV/AIDS. A three-stage model, the ARRM incorporates several variables from other behaviour change theories, including the Health Belief Model, 'efficacy' theory, emotional influences and interpersonal processes. According to Hoffman (1996:6), this model focuses on the client's perception of the HIV threat, anticipation of a negative health outcome, assessment of the severity of the threat and motivation to change. The stages, according to Catania, Kegeles and Coates (1990:53-72), are as follows:

STAGE 1: Recognition and labelling of one's behaviour as high risk

Hypothesised influences:

- Knowledge of sexual activities associated with HIV transmission;
- Believing that one is personally susceptible to contracting HIV;
- Believing that having AIDS is undesirable;
- Social norms and networking.

STAGE 2: Making a commitment to reduce high-risk sexual contacts and to increase low-risk activities

Hypothesised influences:

- Cost and benefits;
- Enjoyment (for example, will the changes affect my enjoyment of sex?);
- Response efficacy (for example, will the changes successfully reduce my risk of HIV-infection?);
- Self-efficacy;
- Knowledge of the health utility and enjoyment of a sexual practice, as well as social factors, are believed to influence an individual's cost and benefit and self-efficacy beliefs.

STAGE 3: Taking action. This can include information seeking, obtaining remedies and enacting solutions

Hypothesised influences:

- Social networks and problem-solving choices (self-help, informal and formal help);
- Prior experiences with problems and solutions;
- Level of self-esteem;
- Resource requirements for acquiring help;
- Ability to communicate verbally with sexual partner;
- Sexual partner's beliefs and behaviours.

This is a description of a process that must be set in motion in order to make a person susceptible to change and it is assumed that programmes designed for the fight against HIV/AIDS must target those factors which will set this process in motion.

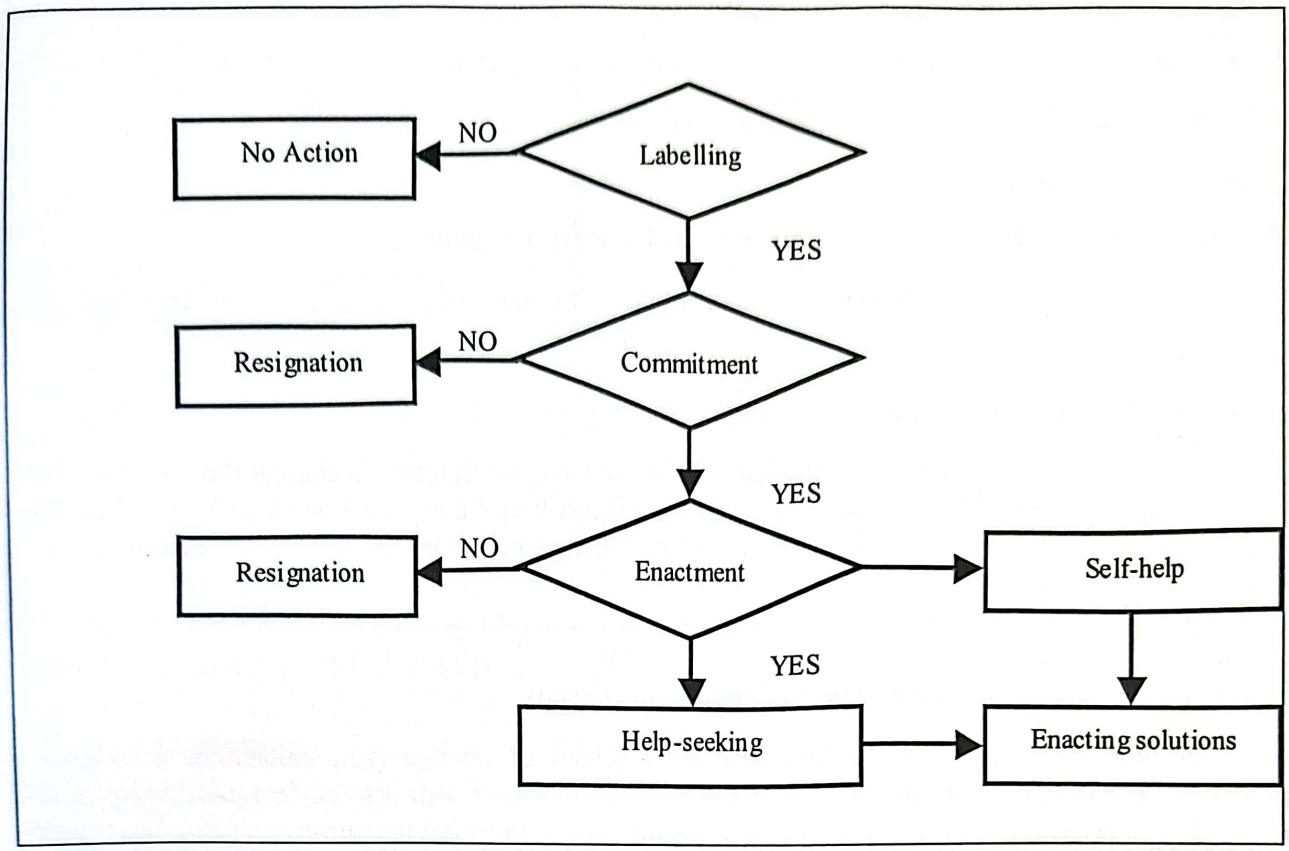
In addition to the stages and influences listed above, Catania *et al.* (1990:53-72) identified other factors that may motivate individual movement across stages. For instance, aversive emotional states (for example, high levels of distress over HIV/AIDS or alcohol use that blunt emotional states) may facilitate or hinder the labelling of one's behaviours. External motivators, such as public education campaigns, an image of a person dying of AIDS, or informal support groups, may also cause people to examine and potentially change their sexual activities. To date ARRM studies in the United States have examined a variety of populations, including gays and bisexual men attending HIV-testing clinics, and adolescent females attending family planning centres (Catania *et al.*, 1990:53-72).

In other words, this model describes the phases through which an individual must progress in order to reduce the risks of contracting HIV/AIDS. Pinto (2000:85) feels that the individual should explore his perception of what constitutes risk behaviour in order to stop or modify it. He must first identify his high-risk activities, then make a commitment to abstain from those activities, and lastly take action that will make it possible for him to change his behaviour.

3.2.2 Limitations

A general limitation of the ARRM model is its focus on the individual. For instance, many women in an ARRM-based study in Uganda felt at risk of HIV, not due to their own behaviour but because of the behaviours of their sexual partners – an issue the women reported was outside their control. As a result, the researchers suggested that the ARRM take into greater consideration the socio-cultural issues that influence an individual's behaviour choices and ability to take action (Denison, 1996:6).

FIGURE 3
THE AIDS RISK REDUCTION MODEL



(Catania et al., 1990:53-72)

3.2.3 Utilisation of the model in this research programme

During stage 1 the students should realise that they are at risk of being infected with HIV/AIDS because of their carefree lifestyles. During stage 2 they should make a commitment to change risk behaviour, which includes drinking habits and dating men who they did not know well. In stage 3 the receiving of knowledge on the dangers of substance abuse and the possibility of date rape should make them more determined to avoid behaviour that could lead to HIV/AIDS infection. Pictures and stories of real people living with HIV/AIDS, which illustrate the horror of the disease, should also motivate the students to alter their behaviour.

3.3 Stages of change model

3.3.1 Description of the model

Psychologists developed the Stages of Change Theory in 1982 to compare smokers in therapy and self-changers along a behaviour change continuum. The rationale behind 'staging' people, as such, was to tailor therapy to a person's needs at his particular point in the change process. As a result the four original components of the Stages of Change Theory (pre-contemplation, contemplation, action and maintenance) were identified and presented as a linear process of change. Since then a fifth stage (preparation for action) has been incorporated into the theory, as well as ten processes that help predict and motivate individual movement across stages. In addition, the stages are no longer considered to be linear, but they are components of a cyclical process that varies for each

individual (Denison, 1996:6). The stages and processes, as described by Prochaska, DiClemente and Norcross (1992:1102-1114), are listed below.

- Pre-contemplation: Individual has the problem and has no intention of changing.

  Processes:

  Consciousness raising (information and knowledge)

  Dramatic relief (role-playing)

Environmental re-evaluation (how problem affects physical environment)

- Contemplation: Individual recognises the problem and is seriously thinking about changing.

  Processes:

  Self-re-evaluation (assessing one's feelings regarding behaviour)

- Preparation for action: Individual recognises the problem and intends to change the behaviour within the next month. Some behaviour change efforts may be reported, such as inconsistent condom usage. However, the defined behaviour change criterion has not been reached (i.e. consistent condom usage).

  Processes:

  Self-liberation (commitment or belief in ability to change)

- Action: Individual has enacted consistent behaviour change (i.e., consistent condom usage) for less than six months.

  Processes:

  Reinforcement management (overt and covert rewards)

  Helping relationships (social support, self-help groups)

  Counter-conditioning (alternatives for behaviour)

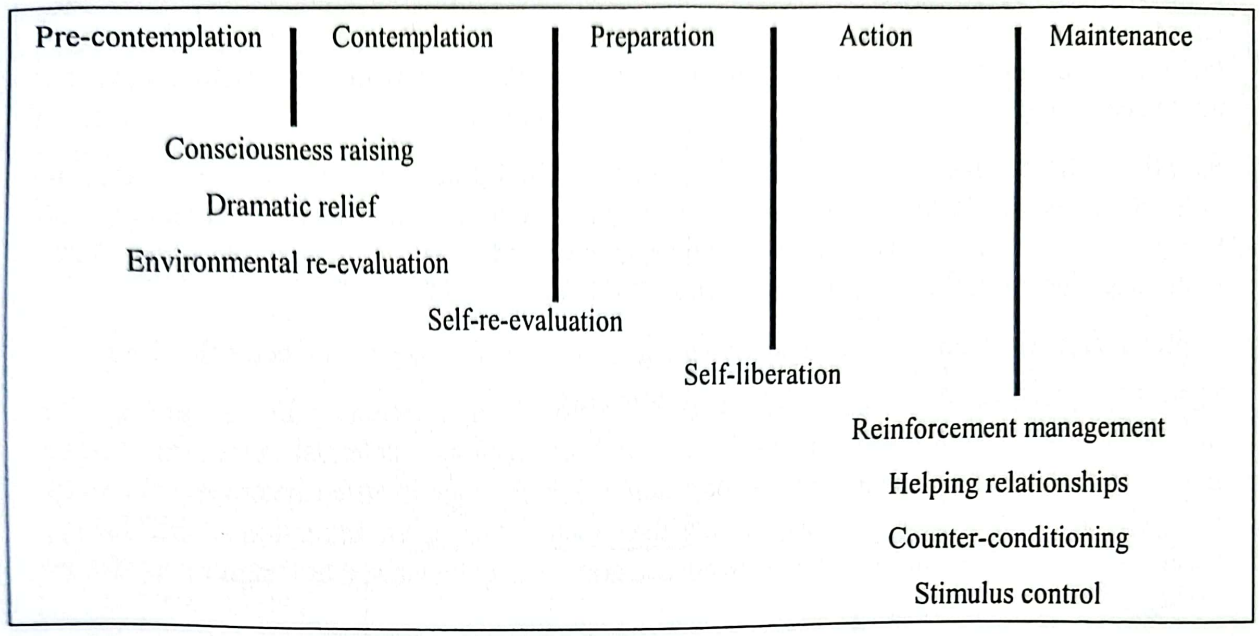
  Stimulus control (avoid high-risk cues)

- Maintenance: Individual maintains new behaviour for six months or more.

3.3.2 Application of the model

A variety of behaviours, such as weight control and mammography screening, have been explored in US populations using the Stages of Change Theory. Recently this theory has been applied in research on sexual behaviours and HIV/AIDS. For example, the Centre for Disease Control and Prevention is using the Stages of Change Theory in an HIV/AIDS Counselling and Testing Study at sexually transmitted disease clinics. Consequently, the counselling provided will be based on the client's particular stage. Other populations where this model has been utilised in the US consist of women, men who have sex with men, intravenous drug users, prostitutes and young people. Preliminary results from these studies support the Stages of Change Theory as a method for characterising individuals along a change continuum with the intent of enhancing the effectiveness of HIV/AIDS interventions. In addition, the theory offers a method for evaluating programmes by measuring individual change (Denison, 1996:8).

FIGURE 4
STAGES OF CHANGE THEORY



(Prochaska et al., 1992:1102-1114)

3.3.3 Limitations

As a psychological theory, this model focuses on the individual without assessing the role that structural and environmental issues may have on a person's ability to enact behavioural change. In addition, since this model presents a descriptive rather than a causative explanation of behaviour, the relationship between stages is not clear. Each of the stages may also not be suitable for characterising every population. For instance, a study of sex workers in Bolivia discovered that few study participants were in the pre-contemplative, contemplative stages with regard to using condoms with their clients (Denison, 1996:8).

3.3.4 Utilisation of the model in this research programme

During the pre-contemplation stage, the students acknowledged that there was an HIV/AIDS problem on campus, but had no intention of addressing the problem. The students were given the frightening statistics on HIV/AIDS and the seriousness of the situation was sketched. In the contemplation stage the students realised that they had to do something about the problem. During the following stage the students received information on safer sex and substance abuse, and realised that changed behaviour was necessary. During the last two stages the students enacted the changed behaviour in order to minimise their risk of contracting HIV. The group leaders included this information in the reports which they had to write after each meeting.

3.4 Theory of Reasoned Action (tra) Model

3.4.1 Description of the model

Research using the Theory of Reasoned Action (TRA) has explained and predicted a variety of human behaviours since 1967. Based on the premise that humans are rational and that the behaviours being explored are under volitional control, the theory provides a construct that links individual beliefs, attitudes, intentions and behaviour (Fishbein, Middlestadt & Hitchcock,

1994:61-78). The theory variables and their definitions, according to Fishbein *et al.* (1994:61-78), are as follows:

- Behaviour: A specific behaviour defined by a combination of four components – action, target, context and time (for example, implementing a sexual HIV risk reduction strategy (action) by using condoms with commercial sex workers (target) in brothels (context) on every occasion (time).
- Intention: The intention to perform a behaviour is the best predictor that a desired behaviour will actually occur. In order to measure it accurately and effectively, intent should be defined using the same components used to define behaviour: action, target, context and time. Both attitude and norms influence one's intention to perform a behaviour.
- Attitude: A person's positive or negative feelings toward performing the defined behaviour.
- Behavioural Beliefs: Behavioural beliefs are a combination of a person's beliefs regarding the outcomes of a defined behaviour and the person's evaluation of potential outcomes. These beliefs will differ from population to population. For instance, married heterosexuals may consider the introduction of condoms into their relationship as an admission of infidelity, while for homosexual males in high-prevalence areas it may be viewed as a sign of trust and caring.
- Norms: A person's perception of other people's opinions regarding the defined behaviour.
- Normative Beliefs: Normative beliefs are a combination of a person's beliefs regarding other people's views of a behaviour and the person's willingness to conform to those views. As with behavioural beliefs, normative beliefs regarding other people's opinions and the evaluation of those opinions will vary from population to population.

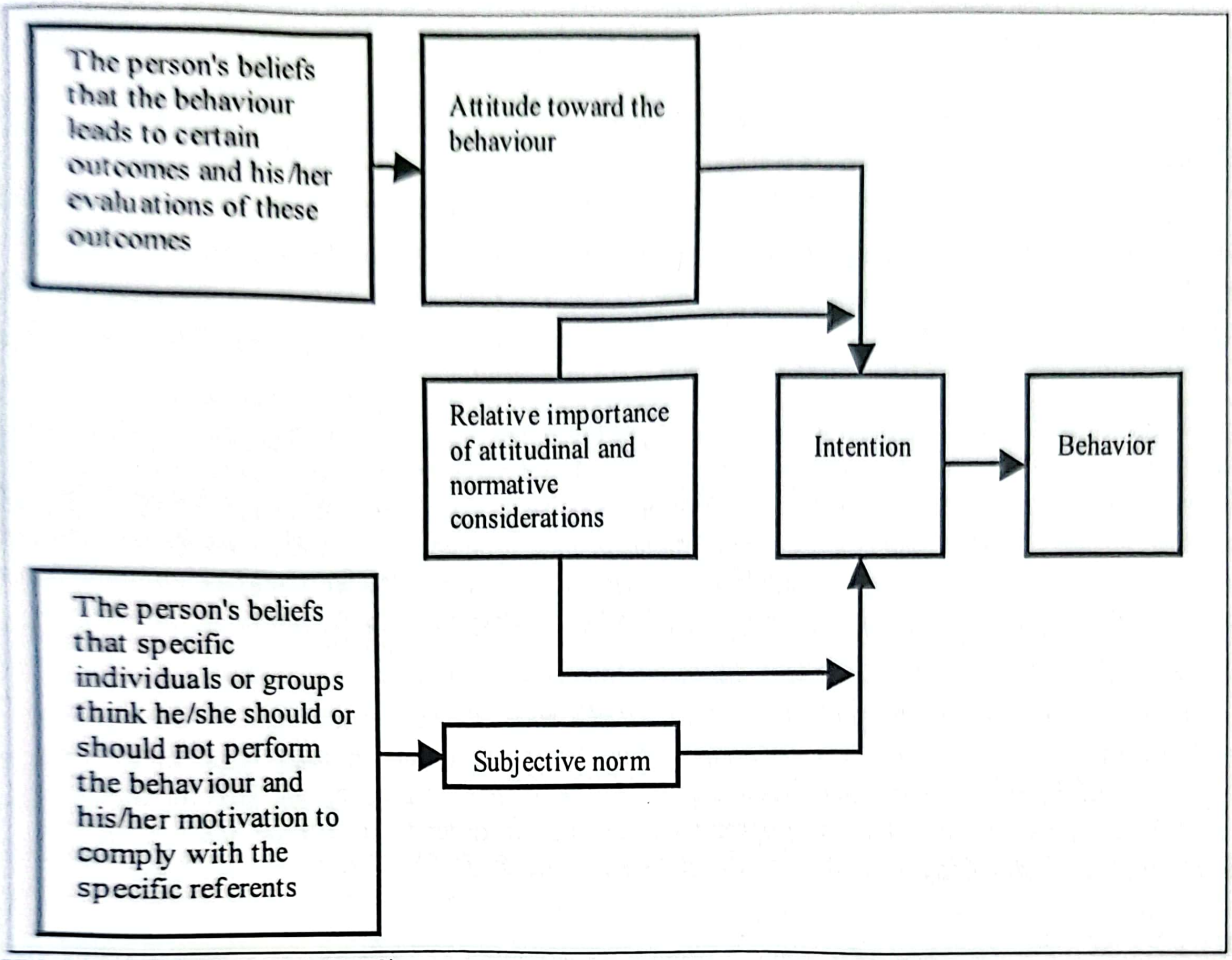
The TRA provides a framework for linking each of the above variables together. Essentially the behavioural and normative beliefs influence individual attitudes and subjective norms, respectively. In turn, attitudes and norms shape a person's intention to perform a behaviour. A person's intention remains the best indicator that the desired behaviour will occur. The TRA model supports a linear process in which changes in an individual's behavioural and normative beliefs will ultimately affect the individual's actual behaviour (Denison, 1996:9 & 10).

The attitude and norm variables, and their underlying cognitive structures, often exert different degrees of influence over a person's intention. For example, results from a study of Northern Thai males revealed that men's perceptions of peer norms were the best predictor of condom use. Yet in a study of college females in the United States, attitudinal beliefs exerted greater influence on the intention to use condoms by sexually inexperienced females. In order to develop appropriate interventions for a specific population and behaviour, it is important to determine which variable and its corresponding cognitive structures exert the greatest influence on the study population (Fishbein *et al.*, 1994:61-78).

3.4.2 Application of the model

Behaviours explored using the TRA include smoking, drinking, signing up for treatment programmes, exercising regularly and breast-feeding. Other study populations for TRA HIV/AIDS research include women, STD clinic patients, female commercial sex workers, men who have sex with men, college students and injecting drug users (Fishbein *et al.*, 1994:61-78).

FIGURE 5
THEORY OF REASONED ACTION



(Fishbein et al., 1994:61-78)

3.4.3 Limitations

Some limitations of the TRA include the inability of the theory, due to its individualistic approach, to consider the role of environmental and structural issues and the linearity of the theory components. Individuals may first change their behaviour and then their beliefs about it. For example, studies on the impact of seat-belt laws in the United States revealed that people often changed their negative attitudes about the use of seat belts when they grew accustomed to the new behaviour (Denison, 1996:10).

3.4.4 Utilisation of the model in this research programme

According to Mullen *et al.* (1987:973-981), this model states that behavioural intention is a strong predictor of behaviour. In this research study the focus was on the individual student evaluating the consequences of his behaviour and his own attitudes as well as the attitudes of others. The research programme's emphasis on making choices and the impact of choices on the student's future related directly to this model. The prevention programme was appropriately called 'You can make the difference', implying that students had to make decisions on aspects like relationships, communication styles, safe sex and substance abuse.

4. SUMMARY

In this article several important aspects of prevention programmes for HIV/AIDS were discussed. Firstly the elements which make prevention programmes successful were discussed. From the literature it is clear that the programmes should have clear goals, recognise diversity; focus on the positive aspects of health care; create a climate of openness and trust; provide well-trained facilitators; and encourage collaboration of relevant role-players in the planning and implementation of the programme. This implies that a checklist should be used in the design and development of a programme. This will result in programmes of a high quality.

Every HIV/AIDS prevention programme is based on theories about the reasons people change their behaviours. These theories or models focus HIV/AIDS prevention efforts on the elements believed to be essential for individuals to enact and sustain behaviour change. In this article four of the best-known theories for HIV/AIDS prevention were discussed.

The Health Belief Model attempts to explain and predict behaviours by focusing on the attitudes and beliefs of individuals. The AIDS Risk Reduction Model explains and predicts the behaviour change efforts of individuals specifically in relation to the sexual transmission of HIV/AIDS. The Stages of Change Theory compares people in therapy along a behaviour change continuum. The stages are pre-contemplation, contemplation, preparing for action, action and maintenance. The Theory of Reasoned Action provides a construct that links individual beliefs, attitudes, intentions and behaviour.

In search of solutions for the problem of HIV/AIDS, there has been considerable theoretical development on risk behaviour. The different models dealing with various aspects of behaviour have played an important role. They should also influence prevention programme development. It is important, however, to test these programmes regularly in order to determine their validity, effectiveness and efficiency.

REFERENCES

BECKER, MG & BARTH, RP 2000. Power through choices: the development of a sexuality education curriculum for youths in out-of-home care. **Child Welfare**, LXXIX(3):269-282.

CATANIA, JJ; KEGELES, SM & COATES, TJ 1990. Towards an understanding of risk behaviour: An AIDS risk reduction model (ARRM). **Health Education Quarterly**, 17(1):53-72.

DENISON, J 1996. **Behavior change: A summary of four major theories**. Arlington: AIDSCAP Behavioral research unit.

DEPARTMENT OF HEALTH 1994. Lifestyle education: Equipping our youth for life. **SALUS**, 17(5):14-15.

DEUTSCH, C 2001. The role of tertiary institutions and peer education. Paper presented at the life skills and peer education strategies workshop, Benoni, 18 October, 2001.

FISHBEIN, M; MIDDLESTADT, SE & HITCHCOCK, PJ 1994. Using information to change sexually transmitted disease-related behaviours. **In**: DICLEMENTE, RJ & PETERSON, JL (eds) **Preventing AIDS: Theories and methods of behavioural interventions**. New York: Plenum Press.

HOFFMAN, MA 1996. **Counseling clients with HIV disease**. New York: Guilford Press.

MARITZ, J 2001. Innovative approaches towards peer education. Pretoria: Centre for the Study of AIDS, University of Pretoria.

MULLEN, P; HERSEY, J & IVERSON, D 1987. Health behaviour models compared. **Social Science Medicine**, 24:973-981.

OZER, EM & BANDURA, A 1990. Mechanisms governing empowerment effects: A self-efficacy analysis. **Journal of Personality and Social Psychology**, 58(3):472-486.

PINTO, RM 2000. HIV prevention for adolescent groups: a six-step approach. **Social Work with Groups**, 23(3):81-99.

PROCHASKA, JO; DICLEMENTE, CC & NORCROSS, JC 1992. In search of how people change - applications to addictive behaviors. **American Psychologist**, 47(9):1102-1114.

RAKOMA, LRM 2000. An investigation into the knowledge and attitudes of the community towards people living with HIV/AIDS. Mmabatho: University of North West. (MA(SW) Thesis)

RIVERS, K & AGGLETON, P 1999. **Adolescent sexuality, gender and the HIV epidemic**. London: United Nations Development Programme.

ROSENSTOCK, I; STRECHER, V & BECKER, M 1994. The Health Belief Model and HIV risk behaviour change. **In**: DICLEMENTE, RJ & PETERSON, JL (eds) **Preventing AIDS: Theories and methods of behavioral interventions**. New York: Plenum Press.

SALONER, K 2001. Rising to the challenge: the critical role of social workers in the face of the HIV/AIDS pandemic. Paper presented at conference 2001 of the Joint University Committee of Social Work, Gaborone, 21-24 September 2001.

SHEAFOR, BW; HOREJSI, CR & HOREJSI, GA 1997. **Techniques and guidelines for social work practice**. Boston: Allyn & Bacon.

TRUSSLER, T & MARCHAND, R 1997. **Field guide: Community HIV health promotion**. Vancouver: Health, Canada.

UNAIDS 2000a. National AIDS programmes: a guide to monitoring and evaluation. Switzerland: UNAIDS.

UNAIDS 2000b. Report on the global HIV/AIDS epidemic. Switzerland: UNAIDS.

VENIER, JL; ROSS, MW & AKANDE, A 1997. HIV/AIDS-related social anxieties in adolescents in three African countries. **Social Science Med**, 46(3):313-320.

WANG, C & CELUM, C 2000. Prevention of HIV. **In:** ANDERSON, J. (ed) **A guide to the clinical care of women with HIV**. Washington: Government Printing.

WORLD HEALTH ORGANISATION 2000. Fact sheets on HIV/AIDS: A desktop reference. Geneva: WHO.