Uma Tori : development and evaluation of an STI/HIV-prevention intervention for women of Afro-Surinamese and Dutch Antillean descent

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Author **Madelief Bertens**

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Prof.mr. G.P.M.F. Mols
volgens het besluit van het College van Decanen,
in het openbaar te verdedigen
op vrijdag 13 juni 2008 om 14:00 uur.

door **Marie Godelieve Barbe Corneille Bertens**

Promotores	Prof.dr. H.P. Schaalma Prof.dr. H.W. van den Borne
Copromotores	Prof.dr. L.K. Bartholomew (University of Texas, Houston, USA) Dr. A. Krumeich
Beoordelingscommissie	Prof.dr. N.K. de Vries (voorzitter) Prof.dr. I. Hutter (Rijksuniversiteit Groningen) Dr. I. Klinge Prof.dr. G. Kok Prof.dr. G.D. Wekker (Universiteit Utrecht)

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List of abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ARRM	Aids Risk Reduction Model
CBS	Centraal Bureau voor de Statistiek [Central Statistics Bureau]
EBG	Evangelische Broeder Gemeente [Evangelical Brotherhood]
ECP	Ethical Committee Psychology
e.g.	exempli gratia [for sake of an example]
et al.	et alii [and others]
FGD	Focus Group Discussion
GGD	Gemeentelijke GezondheidsDienst [Municipal Public Health Services]
HBM	Health Belief Model
HIV	Human Immunodeficiency Virus
i.e.	id est [that is]
IM	Intervention Mapping
IMBP	Integrative Model for Behavioral Prediction
LAT-relation	Living-Apart-Together-relationship
MANOVA	Multivariate Analysis of Variance
MOS-SSS	Medical Outcomes Study Social Support Scale
NIGZ	Nationaal Instituut voor Gezondheidsbevordering en Ziektepreventie [National Institute for Health Promotion and Disease Prevention]
NISSO	Nederlands Instituut voor Sociaal Sexuologisch Onderzoek [Netherlands Institute for Social Sexuality Research]
PBL	Problem Based Learning
P.O.	Performance Objective
PRECEDE	Predisposing, Reinforcing, Enabling, Causes in, Education, Diagnosis and Evaluation
RCT	Randomized Controlled Trial
RBD	Risk Behavior Diagnostic scale
RIVM	Rijksinstituut voor Volksgezondheid en Milieu [National Institute for Public Health and the Environment]
SCT	Social Cognitive Model
SES	Social Economic Status
SOA	Seksueel Overdraagbare Aandoening(en) [Sexually Transmitted Infection(s)]
SOAIDS Nederland	Netherlands Expertise Center for HIV/AIDS and other STI
SPSS	Statistical Package for the Social Sciences
STI	Sexually Transmitted Infection(s)
TRA	Theory of Reasoned Action
TTM	TransTheoretical Model
UNAIDS	Joint United Nations Program on HIV/AIDS
VETC	Voorlichting Eigen Taal Cultuur [Health Education in own language and culture]

Recent surveillance data indicate a relatively high prevalence and incidence of sexually transmitted infections (STI), including human immunodeficiency virus (HIV), among ethnic minority populations in the Netherlands, among whom women of Afro-Surinamese and Dutch Antillean and Aruban descent (RIVM, 2006; van Veen, Koedijk et al., 2007; van Veen, Wagemans et al., 2007).

The best way to avoid STI-infection is prevention of sexual risk behavior, which implies the promotion of safe sex strategies. Consistent condom use is still the most adequate risk reduction strategy. Behavioral studies suggest that ethnic minorities in the Netherlands are at substantial risk of STI/HIV-infection, despite efforts of prevention interventions (Wiggers, de Wit et al., 2003). There is a call for STI/HIV prevention interventions targeting priority populations that are effective in reducing risk behavior. The present thesis describes the development and evaluation of a theory and evidence informed cultural sensitive and gender-specific STI/HIV-prevention intervention.

1.1. Background

- 1.1.1. Health problem: indications of relatively high STI- and HIV-prevalence and unwanted pregnancies
Surveys indicate high levels of sexual risk behavior for the Afro-Surinamese, Dutch Antillean and Aruban population, especially among men. These behaviors include: unprotected sex, inconsistent condom use, high numbers of sex partners, high rates of partner change, concurrent relationships, and sexual contacts outside existing steady relationships (Reubsæet & Ineichen, 1996; Gras, Weide et al., 1999; Gras, van Benthem et al., 2001; Wiggers et al., 2003). These sexual behaviors affect the risks on STI- and HIV infections among these populations.

STI-prevalence

National 2006 STI surveillance data present higher positivity rates for chlamydia, gonorrhea, syphilis and genital herpes in people from Dutch Antillean and Surinamese descent than native Dutch people. Diagnoses of chlamydia among people originating from Surinam and Netherlands Antilles¹ were 16% in men and 9% in women. In women the positivity rates for chlamydia were 16% for women from Surinam, 17% for women from the Netherlands Antilles compared to 11% for the general population of Dutch women. The highest percentage of genital herpes diagnoses was made in men and women from Surinam

¹ People from Aruba are also included when referred to Netherlands Antilles or Dutch Antilleans.

and the Netherlands Antilles (11% and 7% respectively) (van Veen, Koedijk et al., 2007).

In 2003, STI surveillance data showed that of all new cases of chlamydia, gonorrhea and syphilis in 2003, 12%, 21% and 12% respectively were women from Netherlands Antilles or Surinam (Götz, van Bergen et al., 2005), while they represent only 3% of the general Dutch population (Garssen, Nicolaas et al., 2005). The prevalence of chlamydia among the people of Afro-Surinamese and Dutch Antillean descent was 13%, compared to 2% of the Dutch participants (Götz et al., 2005). The overall adjusted chlamydia prevalence of the participants was 2.0%, 1.5% for men, and 2.5% for women. For the participants of Afro-Surinamese and Dutch Antillean descent the prevalence was 8.2%; 4.4% for men and 12.1% for women, though the response rate of these groups was only 30% (van Bergen, Götz et al., 2005).

HIV-prevalence

Relatively high HIV prevalence rates, in the range of 1-2%, have been found in people of Afro-Surinamese and Dutch Antillean descent in the Netherlands compared to 0.2% in the general Dutch population (van den Hoek, Mulder Folkerts et al., 1998; Gras et al., 1999; Singels, 2000; RIVM, 2006; van Veen, Koedijk et al., 2007).

There are no reliable epidemiological data from Surinam or Netherlands Antilles. However, UNAIDS estimated the adult prevalence of HIV at 1-5% in Suriname in 2003 (UNAIDS, 2004). Prevalence of HIV on Netherlands Antilles is estimated between 0.73 – 2.49% (Leeflang, 2007).

Teenage pregnancies and abortions

Engaging in unprotected sexual intercourse puts women at risk not only for STI including HIV, but also for unintended pregnancy (Harvey, Bird et al., 2003). Relatively high rates of teenage pregnancies and abortions indicate high prevalence of unsafe sex (Garssen & Schilthuis, 2004). These pregnancies are unplanned and mostly unwanted. Teenage pregnancy rates among first generation migrants from Surinam are 30.1/1000, and 15.9/1000 among second generation migrants. For the Dutch Antillean population these rates are 43.4/1000 (first generation) and 13.5/1000 (second generation), compared to 4.4/1000 among native Dutch teenagers. Abortion rates are: 33.5/1000 for the Surinamese; 32.2/1000 for the Dutch Antillean and 4.9/1000 for the native Dutch (Garssen & Schilthuis, 2004).

- 1.1.2. Lack of effective STI/HIV prevention intervention aimed at Afro-Surinamese and Dutch Antillean populations in the Netherlands
In the Netherlands, efforts have been made to reach the general public by using mass media approaches. Also numerous

acquired immunodeficiency syndrome (AIDS) prevention activities on a smaller scale have been tailored to reach specific groups (Martijn, De Vries et al., 2004). Although sound evaluation data are not available, the epidemiological data suggest that the Dutch National HIV/STI prevention campaigns have not been very effective in motivating women of Afro-Surinamese and Dutch Antillean descent to protect themselves against sexual risks and decreasing sexual risk taking (Bakker & Vanwesenbeeck, 2002).

Health services have become increasingly aware of the need for tailored approaches to effectively reach the ethnic communities in the Netherlands (Martijn et al., 2004). The Netherlands Expertise Center for HIV/AIDS and other STI (SOAIDS Netherlands), and the National Institute for Health Promotion and Disease Prevention (Nationaal Instituut voor Gezondheidsbevordering en Ziektepreventie (NIGZ)) have called for the development and implementation of systematic evidence- and theory-informed interventions targeting this group (AIDS Foundation, 2002; 2003).

A report on best practices confirmed that many STI/HIV prevention interventions targeting ethnic minorities in the Netherlands are not systematically planned or sufficiently structured. They conclude that intervention practices need improvement and recommend comprehensive needs assessments, clear formulation of project goals, including a theoretical basis, involvement of the priority group and complete evaluations (Vrolings, Gelissen et al., 2006).

One example of a best practice and systematically designed STI/HIV prevention project is 'Amor i Salú' ('Love and Health') for people of Dutch Antillean descent in Rotterdam, which was developed and piloted by the Municipal Public Health Services of Rotterdam in 2001. 'Amor i Salú' was a community-based intervention to increase HIV knowledge and risk awareness. The evaluation showed that the project increased agenda setting regarding STI/HIV risk behavior and increased awareness of risk, but did not generate behavioral change (Kocken, Wouter et al., 2003). This intervention provided fertile grounds inviting further expansion.

Many of the best practices described by Vrolings et al. (2006) made use of the peer health education network, health education for migrants in their own language and related to their own culture (Voorlichting Eigen Taal Cultuur (VETC)) of the Municipal Public Health Services (Gemeentelijke Gezondheids Dienst (GGD)). These health educators are indigenous to their community and function as a link between community members and

the health service system (NIGZ, 1998; Martijn et al., 2004). Little direct empirical evidence is available on the effect of these programs on STI/HIV behavior change (see also Voorham & van Haastrecht, 1996; Kocken & Voorham, 2001).

Several local Surinamese and Dutch Antillean organizations, such as self-help groups, have attempted to educate Surinamese and Dutch Antillean women and adolescents on the risks of unsafe sexual behavior. Examples are 'Mission (Im)possible' and 'Positive Women', which are multicultural support groups for HIV-positive women (Macnack, 2001). However, these efforts were small-scale, locally implemented and have not been systematically evaluated.

Despite these attempts to reach and inform the population of Afro-Surinamese and Dutch Antillean descent in the Netherlands, more effective and sustainable intervention programs are missing. Clearly there is a need for an effective STI/HIV intervention aimed at this particular group.

1.2. Gender-specific prevention, a women-centered approach

The 2001 UN Declaration of Commitment on HIV/AIDS stressed the need to address the gender and diversity dimensions of the HIV/AIDS problem. This involves: expediting national strategies which promote human rights, with a focus on the shared responsibility of men and women to practice safer sex; empowering women to make decisions about their sexual health; battling discrimination, violence, harmful traditional sexual practices and trafficking and sexual exploitation; reducing mother-to-child HIV transmission; and studying the social and economic impact on women of their common roles as caregivers in the epidemic (UNAIDS, 2004).

The overall proportion of HIV-positive women has increased universally. Women, especially young women, are more and more considered an at-risk group for HIV/AIDS and STI infection (Harvey et al., 2003). By the end of 2003, women accounted for nearly 50% of all people living with HIV and this percentage is increasing (UNAIDS, 2004). Poor women of color are at particular high risk of becoming infected with HIV (Gielen, Faden et al., 1994; Pequegnat & Stover, 1999; Essien, Meshack et al., 2002; Lyles, Kay et al., 2007). Heterosexual sex is the dominant transmission mode for infection among women.

As stated before consistent condom use is the preeminent prevention method. Women cannot control male condom use. For women to practice safe sex it is vital to be able to communi-

cate, negotiate and convince their partners to use a condom or revert to other safe sex options like absolute monogamy or abstinence. It is therefore important that health promoters should recognize and adopt a women-centered approach grounded in women's realities, and should also acknowledge that gender roles and gender-based power differentials as critical factors in a woman's ability to make decisions regarding their health and welfare (Gollub, 2006).

Gender inequalities are the core of the problem; social and cultural norms complicate negotiating condom use (UNAIDS, 2004). Several studies have shown that perceived gender roles and gender-based inequalities lead to male control over various decision-making areas, including sexuality (e.g. Connell, 1987; Amaro & Raj, 2000; Wingood & DiClemente, 2000). Most societies maintain a double sexual standard, where men are dominant and sexually active, where sex is perceived as a conquest and the number of partners as an indicator of manliness, and where women should be sexually passive and submissive (Campbell, 1995; Lundgren, 1999; Viveros, 2001; Helman, 2001). Socially and culturally constructed notions of masculinity and femininity refer to the social roles, behaviors and meanings prescribed for men and women (Kimmel, 2001). These cultural constructs of femininity and masculinity are intertwined with other social dimensions, such as sexual division of labor within the household and family, and power inequalities between partners. Understanding the cultural and social structures of gender may therefore enhance our comprehension of how gender-based inequalities affect individual relationships and sexual decision-making (Amaro & Raj, 2000; Wingood & DiClemente, 2000; 2002). HIV risk in women must be seen within the larger context in which women live; empirical research is needed to understand what factors influence women's safer sex behavior (Harvey et al., 2003). If we are to understand sexual relationships we must attend to the power relations within which sexual identities, beliefs and practices are embedded (Holland, Ramazanoglu et al., 1990; Gomez & VanOss Marín, 1996; Gomez, Hernandez et al., 1999; Amaro & Raj, 2000; Bowleg, Belgrave et al., 2000; Jarama, Belgrave et al., 2007). Gollub (2006) calls for HIV-prevention which works on both levels: to achieve long-term, structural change in women's status and provide women with tools, such as negotiation skills and female centered barrier methods, for protection in the short-term.

Several meta-analyses and reviews of interventions have shown that interventions specifically directed toward women are more effective than interventions aimed at the general population or mixed gender audiences (e.g. Exner, Seal et al., 1997; Wingood &

DiClemente, 2000; Ehrhardt, Exner et al., 2002; Mize, Robinson et al., 2002; Kelly, Bobo et al., 2004). This may call for a more women-centered approach in prevention program development. Women are also more likely to make decisions regarding family planning, thus it is to the woman to propose preventive action (Ahlemeyer & Ludwig, 1997).

Some researchers have called for interventions focusing on men, or at least involving them (e.g. Quina, Harlow et al., 2000). Women have been subordinated, made powerless, made responsible for their partner's behavior as well as their own. Others have highlighted the empowering effect of women-centered interventions, especially the interventions aimed at consciousness raising and empowering women to create freedom of choice (Gollub, 1999; Watson & Bell, 2005; Gollub, 2006; Romero, Wallerstein et al., 2006)

1.3. Aims and overview of the project and thesis

The aim of this project was to develop and evaluate a theory- and evidence- informed STI/HIV-prevention intervention for women of Afro-Surinamese and Dutch Antillean descent in the Netherlands. The intervention was called Uma Tori or Women's stories. The purpose of this thesis is to describe the comprehensive design process of this program.

The project consisted of three phases: (1) Community analysis and formative research on the sexual culture, behavior and the underlying factors, (2) Development of an STI/HIV-prevention intervention program, and (3) Evaluation of the program. The formative research commenced in 2001. The intervention and training of the health educators was developed in 2002-2003, by a collaboration of Maastricht University (UM), NIGZ, and the Municipal Public Health Services (GGD) of Amsterdam, Rotterdam and The Hague. The resulting program was piloted in 2004 - 2005 in Rotterdam, Amsterdam and The Hague.

In particular the thesis aims:

- To describe the risk behaviors and to achieve better understanding of the socio-cultural and psychological dynamics of (un)protected sex among women of Afro-Surinamese and Dutch Antillean descent of Afro-Surinamese and Dutch Antillean women (chapter 2 and appendix 1: Bertens, Wolfers et al., 2008 in press; and appendix 2: Bertens, Krumeich et al. (2008 in press).
- To describe the application of Intervention Mapping (IM) process to develop a theory- and evidence informed intervention to promote sexual health in Afro-Surinamese and Dutch Antillean women (chapters 3 and 4). The application of IM in the intervention development has been summarized in appendix 3: Bertens, Schaalma et al. (2008 in press).

- To evaluate the intervention for its efficacy and feasibility in reducing sexual risk behavior (chapter 5 and appendix 4: Bertens, Eiling et al., 2008 accepted).

Chapters 2 to 5 of this thesis present a comprehensive overview of the entire program development process. Each of these chapters will describe a step in the program design. Chapter 2 summarizes the formative research or needs assessment, chapter 3 the specification of the program objectives, chapter 4 the selection of methods and strategies, program design and delivery and the training of the health educators, and chapter 5 the evaluation of the program. Finally, chapter 6 will present the main project results and a critical discussion of the process of program development.

In addition to these chapters, this thesis includes four papers that address the core activities of the Uma Tori project. These papers, accepted for publication, have been added as an appendix to this thesis. Each of these papers can be read independently.

The first two papers describe the two needs assessment studies. The results of these studies are summarized and referred to in chapter 2. The first paper (Bertens et al., 2008 in press) describes a survey study on the socio-psychological determinants of the intention to negotiate safe sex strategies with casual and steady partners. The second paper (Bertens, Krumeich et al., 2008 in press) describes the results of the qualitative study. It illustrates the impact of the socio-cultural household structure – matrifo-cality – on the sexual decision-making of women.

The third paper (Bertens, Schaalma et al., 2008 in press) summarizes the application of IM in the program development, project phase 2, which is also covered in chapters 3 and 4.

Whereas chapter 5 demonstrates the program effects in all the sites where the program was piloted – Amsterdam, Rotterdam, and The Hague – the fourth paper (Bertens, Eiling et al., 2008 accepted) concentrates on the evaluation of program effects in Rotterdam.

Before proceeding with the chapters describing the various phases in the development and evaluation of the Uma Tori program, we will turn our attention to the Intervention Mapping (IM) framework for the program planning, as well as the development of culturally sensitive health promotion program and the principle of collaborative planning.

Reviews of the effectiveness of STI/HIV prevention programs and descriptions of health promotion development in general have argued that, in order to be effective, interventions should be systematically planned, theory- and evidence-informed, gender-specific and culturally sensitive, and must support the needs of the priority population (Fisher & Fisher, 1992; Wingood & DiClemente, 1996; Exner et al., 1997; Mize et al., 2002; Kreuter, Lukwago et al., 2003; Kreuter & McClure, 2004; Schaalma, Abraham et al., 2004). In the 4th Global Report on the AIDS epidemic, the UNAIDS calls for a comprehensive approach to HIV-prevention developed at grassroots level and messages should be focused, should address more than only raising awareness, and should be sensitive to the different contexts of the epidemic (UNAIDS, 2004).

In the present thesis, IM was used as a guide for program development and evaluation. IM is a framework for the development of theory and evidence informed health promotion interventions (Bartholomew, Parcel et al., 1998; Bartholomew, Parcel et al., 2006). It guides health promoters through program development, demystifying the process and eliminating errors by previous teams. The framework provides guidelines and tools for the empirical and theoretical foundations of health promotion programs, for the application of theory, for the translation of theory in actual programs and materials, for the matching of intervention strategies to the socio-cultural context of priority populations, and for the management of program adoption, implementation and evaluation. Thus, IM is to be understood not as a theory, but rather as a planning model or conceptual framework for practice (Schaalma, Kok et al., 2002; Kok, Schaalma et al., 2004).

IM has been used to develop and evaluate health promotion for many health issues, including, for example, asthma management (Bartholomew, Gold et al., 2000; Shegog, Bartholomew et al., 2001), nutrition and healthy diet (Cullen, Bartholomew et al., 1998; Hoelscher, Evans et al., 2002; Brug, Oenema et al., 2005; Martens, 2005; Pérez-Rodrigo, Wind et al., 2005; Kwak, Kremers et al., 2007), cervical cancer screening (Hou, Fernandez et al., 2002; Hou, Fernandez et al., 2004), sun protection (Tripp, Herrmann et al., 2000), mammography (Fernández, Gonzales et al., 2005), urinary incontinence (Alewijnsse, Mesters et al., 2002), leg ulcers (Heinen, Bartholomew et al., 2006), mental health care (Kraag, Kok et al., 2005), acute stroke therapy (Morgenstern, Bartholomew et al., 2003), adolescent risk taking (Tortolero, Markham et al., 2005), violence (Murray, Kelder et al., 1998;

Murray, Kelder et al., 1999; Stevens, de Bourdeaudhuij et al., 2001); and patient education (Bartholomew et al., 2000). IM has also been used as a framework for HIV prevention-intervention development (van Empelen, Kok et al., 2001; Kok, Harterink et al., 2006; van Kesteren, Kok et al., 2006; van Kesteren, 2007; Wolfers, van den Hoek et al., 2007).

IM is based upon an ecological approach to health promotion and on active participation of priority groups in program planning. IM acknowledges that health is a function of individuals and their environments, including families, social networks, organizations and public policy agendas (Richard, Potvin et al., 1996; Green & Kreuter, 2005). In IM, 'health behavior' not only refers to individual behavior, but also to the actions of groups and organizations. Consequently, IM regards decision makers, health promoters and health educators as agents in the environment who may serve as priority groups for health promotion interventions (Cullen et al., 1998; Bartholomew et al., 2006).

IM describes the process of program development in six subsequent phases (see Figure 1.4.):

IM Step (1): Assessment of needs and capacities – conducting a needs assessment to identify the behavioral and environmental conditions that are targets for change.

This phase included the assessment of the health problem, its related behavior and environmental conditions, and their associated determinants for the at-risk populations, resulting in a risk model of factors underlying sexual risk behavior (chapter 2 and appendix 1 and appendix 2).

IM Step (2): Specification of change objectives – specify factors that may determine behavior and environmental conditions for intervention purposes by preparing matrices of change objectives.

This phase included the specification of who and what would change as result of the intervention. The product of this step was a set of matrices that combined performance objectives for the behavior of the women with selected personal and external determinants to produce change objectives, the most immediate target of an intervention (chapter 3 and appendix 3).

IM Step (3): Selection of theory-informed intervention methods and practical intervention strategies to address the identified determinants.

This phase included the identification of theory-informed methods to effect changes in the health behavior of the women. The result is an overview of useful and applicable methods and strategies (chapter 4 and see appendix 3).

Figure 1.4. Intervention Mapping steps and tasks (Bartholomew et al. 2006)

IM Step (4): Design and organization of the program; translation of theoretical methods and strategies into program components and materials.

This phase included decision-making regarding the design of intervention components and program development, as well as pre-testing of materials and protocols. This step required the discussion of program strategies and materials with intended implementers and recipients. The result is the program 'Uma Tori! Kòmbersashon di hende muhé' ('Women's stories') (chapter 4 and appendix 3).

IM Step (5): Specification of adoption and implementation plans, planning program adoption, implementation, and sustainability.

This phase included the incorporation of national organizations like the NIGZ and the Municipal Public Health Services in program delivery and the development of theory-inspired training for the health educators to facilitate program implementation (see chapter 4 and appendix 3).

IM Step (6): Generating an evaluation plan.

This phase involved the planning of outcome and process evaluations to assess the quality of program implementation and the program effects on women's attitudes, beliefs and behaviors regarding sexuality and sexual health (chapter 5 and Bertens, Eiling et al., 2007 submitted, see appendix 4).

IM empowers program developers to answer planning questions by (a) searching and using empirical findings from the literature, (b) by discovering and using theories that might be applied to the various decisions in the IM process, and by (c) collecting and using new data which enable the health promotion planner to answer the planning questions using both qualitative and quantitative research methods (Bartholomew et al., 2006).

1.5. Developing cultural sensitive interventions

Women's attitudes towards protective methods and their use, are based on personal, relational, socio-cultural and structural factors differently mixed in each woman (Gollub, 2006). Sexual behavior is imbedded in a larger socio-cultural context (UNAIDS, 2004). Ethnic minorities are at multiple-jeopardy: low Social Economic Status (SES), living arrangements, domestic violence, and unemployment. All of these factors influence the dependency on a partner, negotiation possibilities and therefore vulnerability to STI/HIV infection.

Health promoters need to consider relational, cultural and socio-economic factors in their prevention programs. Focusing on all

these factors at once, entails using an intersectional approach (Mullings & Schulz, 2006). This implies the importance to attend to the cultures of sex and sexual identity as distinct cultural influences that may interact with ethnic or racial cultural heritage, rather than to focus on subcultures of ethnic or racial heritage (Wilson & Miller, 2003). Consequently, research should not focus on the sexual behavior of Afro-Surinamese or Dutch Antillean women because of their ethnic background, but rather on their sexual behavior and the influence of their ethnic background on that behavior.

Literature review indicates that decision-making processes regarding safe sex practices and safe sex negotiation and communication between partners are influenced by contextual, social, cultural and interrelated personal factors (Roth & Fuller, 1997; Margillo & Imahori, 1998; Foreman, 2003; Marston, 2004; Paranjape, Bernstein et al., 2006). Various reviews and meta-analyses of health education and health promotion programs, and descriptions of health promotion development in general, have argued that, in order to be effective, intervention programs should be culturally sensitive or appropriate for the priority population (e.g. Fisher & Fisher, 1992; Wingood & DiClemente, 1996; Parker, 2001; Kreuter & McClure, 2004; Green & Kreuter, 2005; Bartholomew et al., 2006). Therefore, health promoters need to comprehend and try to understand the underlying cultural values of sexual risk behavior (Resnicow, Soler et al., 2000; Parker, 2001; Parker & Ehrhardt, 2001; Reid, 2004; Green & Kreuter, 2005).

Only few examples of STI/HIV-prevention programs take an in-depth and multifaceted approach to culture. If they have done so at all, the methods for determining culturally relevant values and beliefs were minimally described (Wilson & Miller, 2003). Many of the theories used in intervention development do not explicitly consider culture; the rationale for discussing cultural values, is rarely explored or explained in theoretical terms (Albarracín, Durantini et al., 2006). Furthermore, addressing cultural issues in intervention research by merely adapting materials superficially through 'semantic conceptualizations', for example merely translating information brochures using ethnic names and replacing pictures, is not sufficient. 'Awareness of language' will increase acceptance of the intervention but does not address the cultural context in which risk behavior occurs and will therefore have limited effect (Wilson & Miller, 2003).

Resnicow et al. (2000) have defined cultural-sensitive interventions as interventions that incorporate "...ethnic/cultural characteristics, experience, norms, values, behavioral patterns

and beliefs of a priority population as well as relevant historical, environmental, and social forces in the design, delivery, and evaluation" (p. 272). Although this definition is still rather vague about the concept of 'culture', it points out that groups may share beliefs, norms, values, experiences and traditions, and also that interventionists should modify or fine-tune their interventions to the 'culture' of priority populations.

Resnicow et al. (1999) define two dimensions which should be taken into account: surface and deep structures. These dimensions coincide with the distinction made by Wilson and Miller (2003) who distinguish between presentation strategies and content strategies. Surface structure refers to how well interventions fit within a specific culture by matching intervention materials and messages to observable, superficial characteristics of the priority population (Resnicow et al., 2000). This approach focuses primarily on audiovisual materials, channels and settings for delivery which would appeal to a particular group. Examples of these presentation strategies are employing peer-educators, indigenous facilitators and role models, using appropriate language, providing scripts with cultural terminology and expression styles, and depicting familiar settings (Wilson & Miller, 2003).

Deep structure involves incorporating core cultural values, cultural, social, historical, environmental and psychological factors, embedding cultural concepts into the design of the intervention activities and messages, and grounding the content of the intervention in the context, experiences, values, beliefs and norms of the priority group (Resnicow et al., 1999; Wilson & Miller, 2003). This includes understanding how members of the priority population perceive the cause, course, and treatment of illnesses as well as perceptions regarding the determinants of specific health behaviors (Resnicow et al., 2000). A well-fitted surface structure will increase the receptivity and acceptance of the intervention, whereas deep structure conveys salience (Resnicow et al., 1999).

Both surface and content strategies are usually operationalized by techniques derived from social marketing: exploratory focus groups, pre-testing of program components, and the involvement of community members in program planning and delivery. Although these tools are useful in matching programs to surface manifestations of culture, it remains unclear how they enable interventionists to match their program to the implicit or deep cultural structures underlying health and risk behaviors (Wilson & Miller, 2003). They do not provide clear guidelines for the consideration of cultural issues when defining health promotion goals, identifying behavior change strategies, and program implementation and evaluation.

Kreuter et al. (2003) have suggested five types of strategies to consider when targeting specific cultural groups:

1. Peripheral strategies involve the physical appearance of a program. Colors, images, fonts, pictures of role models and declarative titles should be appealing to the priority group. Materials should be familiar and comfortable, create interest and establish credibility.
2. Evidential strategies presenting evidence of its impact on the specific group enhance the perceived relevance of a health issue. These strategies will raise awareness and perceived personal vulnerability.
3. Linguistic strategies, providing the program in a dominant or native language of a priority group, will improve linguistic accessibility.
4. Constituent-involving strategies entail hiring and training members of the priority group and involving them throughout the process of intervention development.
5. Finally socio-cultural strategies reflect an understanding of culturally normative practices. They recognize, reinforce and build upon the context of broader social cultural values, beliefs, and behaviors, to provide context and meaning to the program, materials and messages.

These different strategies should provide the basis for deciding which (existing or new) messages, approaches, materials and methods should be used in the optimal program (Kreuter et al., 2003). The most advantageous approach would be if all these strategies are considered at once.

In conclusion, in the development of culturally sensitive interventions, health promoters should first understand the deep cultural structures related to the priority population's behavior. The objectives of the intervention should address the needs of the priority population, the theoretical methods and practical strategies should match the deep and surface structures of the population, and delivery of the program should also be acceptable to the population and complement their social structure.

Incorporating cultural sensitivity is an ongoing endeavor to be carried out in every IM step. In the formative research, implicit and explicit cultural structures underlying the behavior have to be traced. In the selection of program objectives the structures or factors that form barriers to the desired behavior need to be uncovered and the feasibility of change objectives as well as the selection of methods and strategies in the design of the program feasibility need to be addressed needs to be addressed. Participatory research should be used to continuously to checkpoint feasibility, increased acceptability and ownership.

1.6. Participatory planning: Linkage System

IM emphasizes that health promotion program development requires full participation of priority populations and stakeholders (Wallerstein, 1992; Wallerstein, Polascek et al., 2002). IM also provides a framework for collaboration between health promoters, priority populations and stakeholders. Interventionists, researchers, representatives of priority groups and stakeholders should collaborate in the program development process from start to finish. Active participation of priority groups and stakeholders facilitates the matching of programs to the socio-cultural background of priority populations in intervention contexts. In addition, active participation may generate a sense of program ownership by priority population members over program planning, which, in turn, facilitates program sustainability (Bracht, Kingsbury et al., 1999).

Throughout the development of Uma Tori a linkage system (Orlandi, Landers et al., 1990) was maintained and members of the priority group and potential implementers were encouraged to participate in program planning both as co-planners and as sources of information. This linkage system comprised several different groups and methods of communicating (see Table 1.6.).

Formal and informal contributions were sought from expert panels of informal leaders, key figures and intermediaries from Afro-Surinamese and Dutch Antillean self-help groups and organizations to participate in the development of a program that would be culturally grounded and valid. In addition, ideas, comments and suggestions from the priority group were incorporated in the decision-making process, by panels and focus group discussions (FGD) discussing preliminary results and brainstorming on issues, as well as through individual interviews. In total 50 community key figures and informal leaders and professionals working with the priority group, i.e. social workers, welfare officers, peer health educators and organizers of self-help organizations were interviewed. Results from the assessment studies, community capacity, culturally appropriate intervention ideas and recruitment of program participants were discussed. Some of them participated in the expert panels. In addition, public health managers and practitioners from the Municipal Public Health Services were involved in program development to facilitate the matching of the program to the intervention context.

All together, the linkage system included various planning and advisory groups (see Table 1.6.).

Table 1.6. Linkage System maintained throughout intervention development

	Who?	When?	What?	How?
Research team	Principal investigator/project leader	IM1	Research	
	Supervising researchers	IM2		
	Student assistants	IM3		
	Maastricht University (UM)	IM4		
		IM5		
		IM6		
Planning team	Project leader (UM), researchers (UM)	IM1	Decision making	Meetings
		IM2		
	financer (SOAIDS Netherlands),	IM3		
	Implementers (NIGZ)	IM4		
	Implementers (GGD Amsterdam, Rotterdam, the Hague, Utrecht)	IM5		
		IM6		
Expert panels	Key informants	IM1	Consultancy	Panel meetings
	Health educators	IM2		
	Hostesses	IM3		
		IM4		
Key informants, intermediaries	Women from the priority group	IM1	Consultancy	Interviews FGD
	Experts working with the priority group	IM2		
		IM3		
		IM4		
Production group	Researchers (UM)	IM4	Intervention development	Meetings
	program developer and trainer (NIGZ), Coordinator and health educators (GGD Amsterdam, Rotterdam, The Hague)	IM5		
Users group	coordinators,	IM4	Consultancy	Meetings
	health educators (GGD Amsterdam, Rotterdam, The Hague)	IM5		
		IM6		
	hostesses			

The planning team, consisting of the project leader and researchers from Maastricht University, a financier from SOAIDS Netherlands, Expertise Center for HIV/AIDS and other STI, and implementers from the National Institute of Health Promotion and Disease Prevention (Nationaal Instituut voor Gezondheids-promotie en Ziektepreventie (NIGZ)) and the Municipal Public Health Services, were involved from the start of the project to discuss and decide on major issues regarding the progress of research and development.

The production group consisted of researchers, program developers and trainers, implementers and executors including the project leader and researcher from Maastricht University, the program developer and trainer of the NIGZ, the coordinator of the Municipal Public Health Service of Amsterdam, and peer health educators of the Municipal Public Health Service of Rotterdam.

And finally, a **users group**, implementers from each Municipal Public Health Service (Gemeentelijke GezondheidsDienst (GGD), i.e. the coordinators, health educators and hostesses, was involved in the production and delivery of the program.

During the developmental process and pilot of the program, several meetings were held with each group and individual members were interviewed. In conducting group interviews, the nominal group technique (Gallagher, Hares et al., 1993 ; Polit & Hungler, 1999) was used, especially in groups with power stratifications.

The design of health education and health promotion programs for priority populations at risk starts with the assessment of quality of life, health problems, related behaviors and factors influencing health and quality of life (Green & Kreuter, 2005; Bartholomew et al., 2006). Such assessments include epidemiological analyses of behavioral and environmental causes of a health problem, psychological analyses of behavioral correlates, and sociological analyses of the resources or capacity of the community. This implies that different priority populations may require different combinations of interventions to change health behavior. Intervention Mapping (IM) emphasizes local, collaborative development that is responsive to the particular needs of a population in a specified geographical, economic and cultural context. The primary goals of this formative research, in IM referred to as Needs Assessment, are to get a full understanding of priority populations, their problems, their character and their strengths. Formative research may include a variety of qualitative and quantitative research methods (Witkin & Altschuld, 1995; Dixon-Woods, Agarwal et al., 2004). The outcomes of formative research enable health promotion planning teams to specify health promotion goals in terms of change in health status, quality of life, behavior, and environmental conditions. This chapter provides a summary of the results of two needs assessment studies, substantiated with literature reviews. As such, this chapter depicts an etic view on the health problem, sexual risk behavior, underlying factors and determinants of the risk behavior. For a more detailed description of the separate studies conducted within the formative research see appendix 1 Bertens et al., 2008 in press) and appendix 2 (Bertens, Krumeich et al., 2008 in press). First, the methods used will be described, followed by a depiction of the study population, and a summary of the findings. The product of the formative research is a risk-model of the health problem, relative higher risk of STI-infection and unwanted pregnancies. This risk model is clarified in § 2.4.

2.1. Methods of Formative Research

To uncover the implicit and deep cultural structures (Resnicow et al., 1999; Wilson & Miller, 2003) analyses of the social-cultural-economic context in which the (risk) behavior takes place was conducted. Sex, as it is currently socially constructed in its various forms, cannot simply be understood as a behavior, it is redolent with symbolic meanings. These meanings are inseparable from gendered power relations and are active in shaping sexual interaction (Holland et al., 1990; Jenkins, 2000). Furthermore, sexual behavior is interrelational; it occurs between two partners

(van Campenhoudt, Mitchell et al., 1997). The assessment of the behavior was focused on the meanings of sexual relations, the meaning of interrelational sexual behavior, the meaning of safe sex and relational factors, on decision-making, power inequalities between men and women and gender roles.

A multi-method approach to the formative research was used to describe sexual (risk) behavior, factors related to these behaviors, and needs and capacity of the communities of minority women. The Aids Risk Reduction Model (ARRM) (Catania, Kegeles et al., 1990), the Theory of Gender and Power (Connell, 1987; Wingood & DiClemente, 2000; 2002) and the Integrative Model of Behavioral Prediction (Fishbein, 2000) was used as the basis for our assessment. In order to get insight into the cultural context of sexual relationships, sexual decision-making and safe sex negotiation of Afro-Surinamese and Dutch Antillean women, we have conducted a survey (Wolfers, 2003; Bertens et al., 2008 in press), a qualitative study that included individual in-depth interviews and focus group discussions (Brouwer, 2003; 't Mannetje, 2004; Backerra, 2005; Bertens, Krumeich et al., 2008 in press), and a review of the literature to substantiate our findings. The literature review included published and unpublished literature on sexual risk taking, decision-making, and interventions to encourage safer sex in the Afro-Surinamese and Dutch Antillean populations and in ethnic minority groups in other countries, such as African American and Latin American women in the United States (US). Furthermore, the preliminary results were discussed with participants from the linkage system (see § 1.6.). The studies were conducted simultaneously.

2.1.1. Quantitative Methods

A quantitative study based on the Integrative Model of Behavioral Prediction (Fishbein, 2000; Fishbein & Yzer, 2003) was conducted among a convenience sample of 128 women of Surinamese and Dutch Antillean descent (average age 28.6 ± 8.7 years). The goal of this study was to describe safe sex negotiation and communication among Dutch women of Surinamese and Dutch Antillean descent. In particular, the study addressed the psychosocial correlates of safe sex negotiation. Participants completed a questionnaire about safe sex behavior, safe sex negotiation and communication, intention to negotiate, and related attitudes, perceived descriptive and injunctive social norms, and self-efficacy expectations. This study is described in detail in Wolfers (2003) and Bertens et al. (2008 in press).

The goal of this study was to describe safe sex negotiation and communication among Dutch women of Surinamese and Dutch Antillean descent. In particular, the study addressed the psychosocial correlates of safe sex negotiation.

Sampling procedure

The priority population consisted of 128 women, between the ages of 17 and 60, identifying themselves as Afro-Surinamese and/or Dutch Antillean. In the period November 2002- February 2003 women were recruited by convenience sampling in the regions of Amsterdam and Rotterdam, with the highest concentrations of these ethnic minority populations in the Netherlands. Self-administered anonymous questionnaires were distributed through minority organizations, municipal health centers, health clinics, community centers and at activities aimed at the priority population. After signing an informed consent form, the participants were asked to complete the questionnaire, which took approximately 20 minutes. Participants could contend for a travelers check worth 250€.

Measures

The questionnaires included several items addressing socio-demographic variables, such as age, ethnic origin, and year of migration, educational level, employment status, marital status and religion. We defined ethnic background on the basis of participants' place of birth and place of birth of their parents. Participants were classified as first generation migrant when they were born in the country of origin and as second-generation migrant when they were born in the Netherlands and had at least one parent born in the country of origin. Participants were queried about their *relational status* and *sexual behavior*, such as the number of casual and steady sex partners in the 6 months preceding the study and cultural background of their partners. We defined a casual partner as a partner with whom the participant incidentally had sexual intercourse. Participants were asked whether they practiced safe sex (always, sometimes, never) with their steady and casual partners and what safe sex meant to them (condom use, no sex outside the relationship, condom use with sexual encounters outside relationship, careful partner choice).

Safe sex negotiation, intentions and correlates:

We used the integrative model of behavioral prediction to examine the correlates of safe sex negotiation (Fishbein, 2000). The participants were asked whether they had communicated about safe sex with their steady and casual partners, and if and how they had reached agreements about safe sex. Participants were further questioned on their attitudes, perceived self-efficacy and social influences concerning safe sex negotiation. Unless mentioned otherwise, Likert-scaled items were used (ranging from 1 to 5). All correlates were assessed for steady and casual partners separately.

Attitudes towards negotiating safe sex were assessed by means of four items (good/bad, pleasant/unpleasant, sensible/unwise, necessary/unnecessary) addressing communication with a steady partner ($\alpha = .79$) and with a casual partner ($\alpha = .79$).

The *injunctive social norm* for negotiating with a steady partner was assessed by means of three items regarding normative beliefs of the partner, best friends, and important others. Each item was weighted by the motivation to comply. This scale was reliable at $\alpha = .76$. The injunctive social norm for negotiating with casual partners was measured using two items regarding beliefs of friends and important others, each weighted by the motivation to comply. The inter-item correlation was $r = .79$. The descriptive social norms regarding negotiating safe sex with steady and casual partners were assessed with two single items ("My best friends negotiate safe sex with their causal/steady partners").

Self-efficacy regarding negotiating safe sex with steady partners and casual partners was assessed with single items ("If I wanted to, I would be able to discuss safe sex with my steady/casual partner and come to an agreement").

The dependent variable central in this study is *Intentions to negotiate sexual risk reduction* with either steady partners or casual partners, which were assessed by means of two items each: "Are you planning to negotiate safer sex" and "Chances are I will negotiate safe sex"; inter-item correlations were $r = .49$ for negotiation with steady partners and $r = .63$ for negotiation with casual partners.

Data analysis

In comparing different subgroups on safe sex and negotiation behavior cross tabulations with chi-square tests were performed. To identify correlates of safe sex negotiation hierarchical multiple regression analyses and an analysis of variance were applied.

2.1.2. Qualitative Methods

We conducted 28 in-depth interviews and eight focus group discussions of an additional 48 women between 19 and 47 years of age (mean 27.3 ± 7.3 years of age) of Afro-Surinamese and Dutch Antillean descent to better understand the context of the risky behaviors, relationships, safe sex decision-making, gender roles, relational factors and negotiation strategies in sexual relations. This study and its results are described in detail in appendix 2.

The aim of this qualitative study was to analyze whether the cultural background of Caribbean women in the Netherlands would prohibit or encourage women to discuss matters concerning sexuality with their partner, uncovering and understanding interacting structures of power and margins to negotiate safe sex within relationships and the matrifocal household structure.

Methods

We conducted a qualitative exploratory study in Dutch cities with relatively high concentrations of immigrants of Surinamese and Dutch Antillean descent. Approval for the study was obtained from the Ethical Committee Psychology (ECP), Maastricht University, the Netherlands. Data collection, using in-depth interviews and focus group discussion (FGD), took place between April 2002 and June 2003.

Recruitment

Recruitment criteria for study participation included being female of Afro-Surinamese and/or Dutch Antillean descent, being 17 years of age or older and being able to understand and speak the Dutch language. Women were recruited using convenience and chain referral sampling. To ensure representation of a wide variety of Dutch Caribbean women with different socio-economic backgrounds, the interviewers approached women at different locations: e.g. at community and health centers and childcare centers, during a vaccination campaign and activities aimed at the priority population and selected women on difference in social economic status, educational level, employment status, duration of stay in the Netherlands (Browne & Russell, 2003).

Twenty-eight interviews were conducted in the cities of Rotterdam, Amsterdam, The Hague, Utrecht, Maastricht and Nijmegen; 14 with Afro-Surinamese women and 14 with women of Dutch Antillean descent. The preliminary results of the in-depth interviews were discussed in additional focus group discussions; four Surinamese and four Antillean groups, averaging six women per group ($N = 48$). Four Surinamese and two Antillean women who participated in individual interviews also participated in a focus group discussion. The interviewers were all native Dutch women, between 25 and 35 years of age. A total of 34 women of Afro-Surinamese descent and 36 women of Dutch Antillean descent were included in this study. The mean age of the interviewees was 27.3 years, ranging between 19 and 47 years of age.

Table 2.1.2. Topic list individual interviews in the formative research

Topics	Examples of subtopics	Examples of questions
Sexual relationship	Current relationship Past relationships First relationship	Are you in a relationship at the moment? How would you define your current relationship?
Household structure		Can you tell about your living arrangements? With whom do you share a household?
Relational aspects	Definition of relationship Partner characteristics Trust Responsibilities Seriousness	How would you define a (good) relationship?
Gender roles	Distribution of tasks (financial, material, household, upbringing of children) Distribution of responsibilities (In)dependency	How are the household tasks distributed in the household? Which tasks are typically viewed a woman's job?
Masculinity and femininity	Description of masculinity and femininity	What does it mean to be a woman? What does it mean to be a man?
Social network and social support	Other meaningful relationships Social, financial, emotional support	What are meaningful relationships?
Risk perception	Personal risk perception Susceptibility Experience with STI	What do you consider risky situations? Risky partners?
Safe sex and risk reduction strategies	Definition and importance of sex Definition of safe and unsafe sex Contraceptive use Condom use STI-testing	What do you consider safe sex? Do you use condoms? What are reasons for not using a condom?
Sexual communication with a partner	Topics of communication with a partner Taboo topics Sexual communication Arguments	Which subjects can you (not) discuss with your partner?
Safe sex negotiation with partner	Sexual decision making Initiation Outcome expectancies	Have you ever persuaded a man to practice safe sex? Can you describe how you've discussed it with him?

Procedure

As stated, the interviewers were trained at Maastricht University and all were women of Dutch origin. Data was collected via individual in-depth interviews and focus group discussions until saturation was reached. Potential participants received written and oral information about the study and about measures for anonymity and confidentiality. Each participant was given a pseudonym. They were informed about the added value brought to the project by participation, that involvement was voluntary, that they could refuse to answer any question, and that they could cease participation at any time without penalty. Subsequently, they were asked to sign informed consent. Agreement was obtained about recording the interviews and focus group discussions. Interviews, transcripts and coding were done by the interviewers and the first author. The participants chose the location for the interviews. Most interviews were conducted at the homes of the women. The focus groups were all conducted in community or health centers.

The interviews lasted 1.5 to 3 hours. The participants received a 10€ gift certificate for an interview and a 5€ gift certificate for partaking in a focus group discussion.

Interview topics

Semi-structured, open-ended questions were used to elicit the women's experiences. The women were encouraged to speak candidly about their past and current relationships. Although most women eagerly discussed their relationships and feelings regarding contemporary dating, reflective (e.g. "Looking back at your first sexual relationship, would you reconsider the value attached to that relationship?") and probing questions (e.g. "Could you give an explanation of what you consider a steady relationship?") were used to encourage participants to elaborate on life experiences (Foreman, 2003). The interviewers used a short topic list to make sure all relevant issues were covered during the interview.

After initial small talk, each interview started with a general question "Can you tell me a little about your current relationship?" 'Grand tour' questions such as these allow for a broad contextual initiation of ethnographic interviews (Spradley, 1980).

Focus group discussions (FGD) were semi-structured using a topic guide. Other techniques were brainstorming on certain topics (e.g. "What comes to mind when talking about gender, relationship, safe sex, negotiation about condom use?") and discussion of fictitious cases. Whereas the individual interviews

focused on experiences of the women, the FGDs dealt with opinions on the topics and discussing the preliminary results of the individual interviews.

Data Processing and Analysis

All interviews were tape-recorded and transcribed verbatim. In processing and analyzing, QSR Nvivo 2.0 (QSRInternational, 2002) and QSR Nvivo 7.0 (QSRInternational, 2007) were used. The analysis of all qualitative data consisted of an iterative process (Richards, 2005) based on grounded theory (Strauss & Corbin, 1998) and structured analysis (Gibbs, 2002).

The interviewers, in consultation with the principal investigator, conducted a line-by-line analysis of the interview transcripts and identified emerging themes. In the analysis both important information relating to individual participants and information relevant to all participants was found in the transcripts using a combination of within-case and across-case analysis (Ayres, Kavanaugh et al., 2003). In the first phase of within-case analysis each interview was thoroughly read and divided into text fragments. All the fragments were categorized by interview topics and research concepts derived from the ARRM (Catania et al., 1990), and the Theory of Gender and Power (Connell, 1987; Wingood & DiClemente, 2000; 2002). In the second phase of the coding process the broad categories were subdivided into smaller segments and coded accordingly, resulting in a tree structure of important codes. The tree structure and codes were then compared among the researchers. Within-case analysis alerted the investigator to the presence of key elements or themes, which were then compared across cases to identify commonalities (Ayres et al., 2003). The analysis of the FGD was included in the across-case analysis.

2.2. Background Afro-Surinamese and Dutch Antillean population in the Netherlands and sample characteristics of our studies

Women from Afro-Surinamese and Dutch Antillean descent are usually classified as one cultural group – the Afro-Caribbean or Dutch Caribbean – although they differ on various aspects. In our interviews, however, both groups indicated that they did not object being referred to as Dutch Caribbean. We therefore will use this label in this thesis, unless there is a need to distinguish the groups.

2.2.1. Population and migrant status

In 2006 about 1.72 million immigrants of non-Western origin inhabited the Netherlands; 10.5% of the total Dutch population of approximately 16 million. Minorities from Surinam (333 504)

and Netherlands Antilles (129 965) constitute the second and fourth largest ethnic minority groups, respectively 19.3% and 7.5% of the non-Western ethnic groups (CBS, 2007).

About half of the Surinamese population in the Netherlands, migrated between 1970 and 1980, with a peak in 1975 when Surinam gained its independence from the Netherlands (Snijders, 2000). During the military take-over in Surinam in 1980, there was another immigration wave from Surinam. After that, the immigration from Surinam was mainly caused by factors like family reunion, and educational or occupational motives.

The Surinamese are considered 'old' migrants. In 2004, four out of ten first generation Surinamese had lived in the Netherlands over 25 years (Garssen et al., 2005). Nowadays, 56.5% (187 483) can be classified as first generation immigrant (CBS, 2007). Even though the level of remigration is low, many Surinamese keep close contacts with their country of origin and visit Surinam on a regular basis.

The immigration from the Netherlands Antilles - Curacao, Bonaire, St. Maarten, St. Eustatius and Saba - and Aruba is more recent. Most migrants from the Netherlands Antilles, predominantly Curacao, arrived in the Netherlands after 1980; 61.8% (80 102) are first generation migrants (CBS, 2007). Still, many young Dutch Antilleans come to the Netherlands for occupational and educational purposes.

Most participants in our studies were first generation migrants. Of the participants of the survey, 72% were first generation migrants, with an average period of residency of 12.5 years ranging from 1 to 40 years (see appendix 1).

Among women participating in the interviews, the period of residency in the Netherlands ranged from 6 months to 29 years; on average the Surinamese had lived in the Netherlands for a longer period (15 years) and had immigrated at an earlier age (14 years) compared to the Antilleans (10 years and 19 years) (see appendix 2).

2.2.2. Residence

In the Netherlands, most ethnic minorities live in the big cities in the western part of the country (e.g. Amsterdam, Rotterdam, The Hague, Utrecht and Almere) (Ament, 1999). They make up 34.6% of the population of Rotterdam, 33.9% of Amsterdam and 31.2% of The Hague (Latten, Nicolaas et al., 2005). About two-thirds of the Afro-Surinamese migrants settled in Amsterdam, The Hague and Rijnmond. They are overrepresented in Amsterdam (almost 70 000). Dutch Antilleans are predominantly found in Rotterdam;

in this city live 14.5% of the Dutch Antillean population (AIDS Foundation, 2002; 2003; van Huis, 2003).

2.2.3. Socio-economic position

Although the average socio-economic position of the Dutch Caribbeans is weaker than that of the native Dutch population, they are relatively better off than other non-Western migrant groups (Garssen et al., 2005). About 60% of the Surinam population completed secondary and higher education, and 58% is employed.

The participants in both our studies were slightly better educated than the general Dutch Caribbean population, most participants had finished secondary education. About 65% of the participants in our qualitative study had (senior) vocational education and training, and a third was still attending senior or higher education. The unemployment figure for the Antillean study sample was higher than the figure for Surinamese women; respectively 21% and 7% (appendix 2). Of the women in the survey 87% had (higher) vocational education and training; 16% were still in school and 10% was unemployed (appendix 1).

2.2.4. Religious affiliation

The Surinamese population is composed of four basic ethnic groups: Creoles or Afro-Surinamese, Hindus, Javanese, and Indians (Snijders, 2000). The Creole or Afro-Surinamese group is the largest and constitutes the focus of this project. They are predominantly Christian, mainly belonging to the Evangelical Brotherhood (Evangelische Broeder Gemeente (EBG)), Pentecostal or Jehova Witnesses. Some Surinamese adhere to an animistic religion called Winti. The Surinamese in the Netherlands are fluent in the Dutch language, but also speak Sranantongo.

The Dutch Antilleans are predominantly Roman Catholic. Many of them are not so proficient in the Dutch language. Their first language is Papiamentu.

Like the general Surinamese and Dutch Antillean population, most participants of our studies adhered to a religion; 13% of the survey participants indicated not to be religious (appendix 1). The Surinamese in our sample mainly belonged to the EBG and a few were Winti. The Dutch Antilleans were predominantly Roman Catholic, though a small group were Jehova witnesses or belonged to the Pentecostal Church (appendix 2).

To classify women of Dutch Antillean and Surinamese descent as one coherent, homogenous group sharing a similar cultural background would be inappropriate. They vary in country of origin, language, religious affiliation, and duration of residency

and level of integration in Dutch society. However, despite this diversity, they seem to share some similar features with regard to family structure, gender roles and sexual relations.

2.2.5. Household structure

Matrifocality – a term referring to “a property of kinship systems where the complex of affective ties among mother and children assumes a structural prominence because of the diminution (but not disappearance) of male authority in domestic relations” (Smith, 2001) – has been applied to describe the structures of African-American and African-Caribbean households and may also be applicable to the Afro-Surinamese and Dutch Antillean households (Terborg, 2002). In matrifocal households women have an authoritative role; they make key decisions and control the earnings brought into the households. The women, in their central role as mothers, wage earners, providers and guardians, are relatively independent. Fathers, generally, have a marginal role in the family, and the bond between spouses is usually rather unstable (Prior, 2005). The male partner does have financial responsibilities for his children, but rarely intervenes in the upbringing of his children (Lamur & Terborg, 1995; Boedjarath, Lamur et al., 1998; Distelbrink, 2000; 2006). In her thorough analysis of family structure and gender roles in Surinam, Terborg (2002) advises not to over-generalize this perception of gender roles. Men do undertake social fathering, caring for non-biological children, and even though women may *seem* strong and independent they are often struggling and feel subordinate.

The Dutch Antillean and Surinamese populations seem to choose cohabitation instead of getting married. Freeman (2005) claims that marriage in Caribbean culture is seen as undesirable because of the restrictions associated with marriage, such as economical dependency and loyalty. Marriage is perceived to restrict freedom in household management and to limit support from their kin or their female network. Consequently, women seem to prefer serial fluid romantic relationships, i.e. ‘visiting unions’ or ‘visiting relations’ in which partners do not share permanent residence. They may shift to cohabitation in which couples retain their flexibility (Freeman, 2005). So-called ‘rainbow families’ (families with offspring from different fathers) are rather common. In these situations women rely on informal social networks of female family members for social and financial support.

It is not uncommon to find single mother, female-headed households in the Afro-Caribbean population, sometimes with three generations of women sharing a household (Heemelaar,

2000; 2002). An estimated 40% of Dutch Antillean women and 33% of Surinamese women are single parents compared to 8% of Dutch women (Harmsen & Garssen, 2005). Nine out of ten Surinamese and Dutch Antillean single-parent households are female-headed.

Generally, Dutch Caribbean women become mothers at a relatively young age (Kalwij, 1999; Rademakers, 2002; Kocken et al., 2003). Many women of Dutch Antillean descent end up pregnant without a spouse (CBS, 2003). The studies by Wekker (1994) and Terborg (2002) in Surinam show that having children and grandchildren gives a woman social status. The bond between mothers and their children, especially her daughters, form the core of stable family relations (Quinlan, 2006). Distelbrink (2000; 2006) suggests that young girls get pregnant to prove their independence, especially girls with poor perspectives.

2.3. Results drawn from formative research

This section contains a summary of the collective results of the main findings of (1) the quantitative study, i.e. the survey and (2) the qualitative study, i.e. the interviews and FGDs. The results are substantiated using literature review. As such, this chapter depicts an etic view on the health problem, sexual risk behavior, underlying factors and determinants of the risk behavior. For a more detailed description we refer to appendices 1 and 2.

- 2.3.1. The health problem and its related risk behavior: Risk of STI/HIV-infection in women of Afro-Surinamese and Dutch Antillean descent
In the Netherlands, ethnic minorities are at substantial risk of STI/HIV infection, especially women with an Afro-Surinamese or Dutch Antillean background. STI/HIV surveillance data show relatively high STI/HIV prevalence rates among women from the Netherlands Antilles or Surinam (Wiggers et al., 2003; Götz et al., 2005). In a HIV-survey among high-risk groups in Rotterdam (2006), HIV-prevalence of the Surinamese was 0.8% and of the Dutch Antillean participants 0.8-3.2% (van Veen, Wagemans et al., 2007). 20% of the Caribbean respondents had been STI-tested in the year preceding the survey, and about 10% had been treated for an STI (van Veen, Wagemans et al., 2007). Our interviews indicated that about a third of our respondents had at one time contracted an STI-infection.

Surveys indicate high levels of sexual risk behavior for ethnic minority groups, including inconsistent condom use, more sexual partners, high rates of partner change, concurrent relationships, sexual contacts outside steady relationships, and

sexual contacts in the country of origin (Gras et al., 1999; Wiggers, 2000; Gras et al., 2001; AIDS Foundation, 2002; NIGZ, 2002; Wiggers et al., 2003). Sexual risk taking is especially apparent in men; it is less pronounced for women (Wiggers et al., 2003).

The interviews revealed that sex and sexuality were important for the Surinamese and Dutch Antillean women. Though it was acknowledged that the sexual drive of men is insatiable, women also have sexual drive. Having intercourse, especially within a steady relationship was considered healthy behavior and indispensable. This is in accordance with the findings of Terborg (2002).

Like the participants in the study of Terborg (2002), the participants of the interviews asserted that a sexual relationship is, by definition, heterosexual, and sex is vaginal penetration. The Dutch Antillean respondents did not mention same-sex-relationships. Same-sex sexual relationships, or 'matis', have been reported among Surinamese women (Wekker, 1994; 2000). However, these women do not claim to be lesbians; sex with another woman is what you 'do', not what you 'are'. Most of these women engage in sexual relationships with men as well (Wekker, 1994; 2000).

Since only one interviewed Surinamese respondent indicated having been sexually involved with other women the focus of not only the formative research but also the intervention was on heterosexual intercourse as the primary behavior.

2.3.2. Sexual contacts and condom use

Generally, there is not much difference between native Dutch women and Dutch Caribbean women as to the reported number of partners, which averages between one and three sexual partners in the previous 5 years (Coutinho & Bovenkerk, 1997; van Veen, Beuker et al., 2005; van Veen, Koedijk et al., 2007). Dutch Caribbean men, on the other hand, do report higher numbers of partners compared with Dutch men (respectively 5 and 2.5 partners in the previous 5 years) (Coutinho & Bovenkerk, 1997; van Veen et al., 2005; van Veen, Koedijk et al., 2007).

The Dutch Caribbean men report more partners, more casual sexual partners and more concurrent partners – frequently referred to as 'bysides' or 'buitenvrouwen' ('outside women') – than women, but women report less condom use. In the 2006 Rotterdam HIV-survey, only 6% of the Dutch Caribbean women disclosed they had concurrent partners, whereas 30% of the men had concurrent partners (van Veen, Wagemans et al., 2007).

Both our studies showed that women did not have multiple concurrent partners, and few casual sexual encounters, so much as unstable relationships. Participants of the survey reported an average of 1.1 sexual partners in the six months prior to the study ($SD = 0.92$; range 1-8). About a quarter of the participants (23%) reported no partner. Ninety-one women (71%) indicated that they had one or more steady relationships in the six months preceding the study. Seventeen women (13%) reported having had at least one casual sex partner in the 6 month preceding the study (appendix 1).

The women seemed to engage in what Misovich, Fisher et al. (1997) call 'realistic monogamy' with sequential sexual relationships varying in duration and seriousness.

Strictly speaking, the number of partners, frequent partner change rate or even having concurrent partners would not increase the risk of STI-infection if condoms were used consistently and properly or if the partners were definitely STI-free. Research among young ethnic minorities showed that STI and safe sex knowledge did not differ between Dutch Caribbean and Dutch adolescents (NIGZ, 2002; Stuurgroep-Jongeren-Aids-Soa-en-Seksualiteit, 2002). The participants of our interviews were also knowledgeable of the transmission routes of STI-infection and prevention strategies. And most if not all of the interviewed women stated that condom use was the best way to prevent STI/HIV transmission.

The results of our survey demonstrated that women's definition of safe sex was related to type of relationship (see appendix 1). Whereas safe sex with a steady partner was predominantly defined as 'having no sex outside the relationship', all women who claimed to practice safe sex with a casual partner defined safe sex as consistent condom use.

Condom use is not popular in this community (Gras et al., 1999; van Veen, Wagemans et al., 2007). Gras et al. (1999) claimed that only 16-28% of the Surinamese women used condoms. Our studies also indicated high rates of unprotected sex. Our survey revealed that 41% of the sexually active women reported to practice safe sex. Safe sex practice was not related to ethnicity or immigration history, ethnic background of partner, or type of relationship (see appendix 1).

The interviews further clarified that condom use was especially uncommon in what women perceived to be steady relationships.

Many studies have shown that consistent condom use is substantially lower in primary, long-term relationships than in

new relationships or casual contacts (Misovich et al., 1997; Gras et al., 1999; Macaluso, Demand et al., 2000; Wiggers et al., 2003), among heterosexual (Soler, Quadagno et al., 2000) or homosexual partners (Davidovich, de Wit et al., 2004), among adolescents (van Empelen & Kok, 2006) or older people (Lichtenstein, 2005), and among different ethnicities (Crosby, DiClemente et al., 2000; Seal, Wagner Raphael et al., 2000; Soler et al., 2000; Sangi-Haghpeykar, Poindexter et al., 2003; Kelly, Amirkhanian et al., 2004).

An HIV-survey among high-risk groups in Rotterdam revealed that 53% of the Dutch Antillean men, 66% of the Surinamese men, 80% of the Dutch Antillean women and 75% of the Surinamese women reported never using condoms with a steady partner. (van Veen et al., 2005; van Veen, Wagemans et al., 2007) Although condom use was higher with casual contacts, it was still inconsistent. Of the Dutch Caribbean men 60% indicated to use a condom with a casual partner; among women this percentage was 45%.

Safe sex decision-making is often determined by how committed, serious, or intimate the relationship is judged to be. Research among African American college women showed that these women, as do other women, employ emotional strategies to determine their safer sex behavior (Foreman, 2003). These strategies involve a self-defined sexual arrangements hierarchy. It defines the way women valued different types of sexual relationships from casual to committed, which in turn determines safer sex behavior.

Our interviews suggested that the perceived steadiness and intimacy of a relationship is especially important in safe sex decision-making (see appendix 2). Condoms are rarely used in long-term relationships. If a relationship is classified as steady, long-term, committed and intimate, condoms will be discarded. Steady relationships are perceived as inherently safe, free of risks for STI and HIV. Indeed the women in our interviews associated condoms with infidelity and promiscuity and therefore did not think they were linked to intimacy, trust and respect, which characterize steady relationships.

The question is which relationships were considered safe by Dutch Caribbean women. Our survey showed that only 17 women disclosed having casual sexual contacts. The majority of respondents of our interviews claimed that they only had sexual intercourse with steady boyfriends or partners.

Other studies confirmed this picture. In the 2006 HIV-survey in Rotterdam, the majority of respondents reported a steady partner; 65% of the Dutch Antillean respondents (68% of men,

62% of women), and 57% of the Surinamese respondents (52% of the men, 60% of the women). 42% of the Dutch Antillean men, and 55% of the Surinamese men reported casual sex in the previous 6 months, and only 24% of the Dutch Caribbean women did (van Veen, Wagemans et al., 2007)

Our interviews further indicated that the boundary between casual and steady partners was rather ambiguous. New relationships were quickly labeled as steady. The interviews also suggested that the transition from condom use at the onset of a relationship to no condom use as a relationship progresses frequently seemed to occur without communication about sexual risk behavior or STI/HIV-testing. The interviews further revealed that women did not perceive themselves to be at risk for STI, primarily because they did not believe their relationships to be risky. They predominantly related STI/HIV susceptibility to their own behavior, although they acknowledged that many Dutch Caribbean men have concurrent relationships and unprotected sex in the country of origin. These secondary relationships of men, referred to as 'bysides' or 'outside women', were also defined as steady and therefore 'safe' relationships. The interviews also suggested a tendency among women to perceive all their sexual relationships as steady, intimate and trustworthy, including for instance, ongoing relationships with the father of a child and sexual contacts with ex-partners. Other 'steady relationships' the women were involved in, co-residence, LAT-relations (Living Apart Together), and 'visiting relations'. These were all seen as monogamous and therefore inherently safe (see also Backerra, 2004).

2.3.3. Risky partners

In general, the interviewed respondents knew and were aware of the threat and consequences of STI. However, the perception of risk was hardly ever projected on their personal situation. The interviews revealed that their own behavior was usually used as a reference point for judging their potential risk and (sexual) risk behavior. The women estimated their personal risk on the basis of their own sexual history and behavior. According to the respondents, promiscuous behavior and sexual relations with a 'less trustworthy' partner were the most important sexual risk behaviors. The question now is how did the women decide whether a potential partner is trustworthy?

In fact 'choosing the right partner' was a risk reduction strategy for some of the interviewed women. The Dutch Antillean women indicated they were careful in choosing their partners. 'Cleanliness' and how well one knows a partner are criteria to ascertain risk. Purity or cleanliness is an important aspect of the

Winti (Surinamese) traditional religion. Some of the interviewed Surinamese women mentioned that some men claim to have a 'tapu', meaning they are unassailable by any disease because they had undergone certain cleansing rituals.

A study by Wiggers et al. (2003) suggests that condom use was primarily related to perceived support from family and friends, and perceived control over condom use in sexual encounters. Our qualitative study showed that the social network is important in choosing a right partner: "Knowing the family, means knowing your partner". The Surinamese community is very small and people gossip. Some women and men rely on the gossip to evaluate how safe, i.e. how promiscuous, and how 'easy' a potential partner is. Ferrand & Snijder (1997) claim that social proximity is seen as a guarantee for safety. It is assumed that ones own social circle is 'healthy' – as healthy as oneself –. And members of such a social, sexual network will be involved in 'collective gate keeping', seeing to it that if members have sex with non-members, for instance Dutch Caribbean engaging in sex with a Dutch person, they protect themselves.

Surinamese women generally choose their partner from their own background (Garssen et al., 2005). This finding is echoed by our studies. In our survey, 70.5% of the women indicated that their sex partners had a Dutch Caribbean background. The partners of our interviewed women were also mainly from the same ethnic background, or from another non-Dutch background.

Van Veen et al. (2005) claims that it seems that ethnic mixing occurs more in casual sexual encounters than with steady partners. Even though all the interviewed participants seemed more comfortable discussing sexuality with partners with a similar ethnic background, they were less likely to practice safe sex.

2.3.4. Testing behavior

Most of the women participating in our interviews considered themselves to be monogamous and therefore at low risk for STI. Despite the low personal risk perception, a surprisingly large number of the respondents - about one third - had been tested for STI and HIV at least once. Many of the interviewed women were first tested for STI/HIV during pregnancy. Then realized the responsibilities they had toward their unborn, they vowed to consistently use condoms in the future.

Several other studies have shown that the percentage of Dutch Caribbean people who have been tested for STI/HIV is relatively high, compared to the heterosexual Dutch population: 30-40%

of the Dutch Caribbean men and between 40-50% of the women have been HIV-tested (Bakker & Vanwesenbeeck, 2006; van Veen, Wagemans et al., 2007).

None of our interviewees was HIV-positive. Even though all of the women found the HIV-test extremely stressful, they believed that everyone, especially the young should, be obliged to have an HIV-test every so often. An HIV-test was seen as a confrontation with their behavior and for many a motivation to practice safer sex, at least temporarily. All stated clear intentions of practicing safe sex thereafter. However, many respondents had more tests done, some even on a regular basis, implying therefore unsafe sexual activity. They claimed that they wanted to check and reassure themselves that their partner was clean. An HIV-test thus becomes a preventive measure. Instead of a motivation to practice safe sex it is a reassurance that their current (unsafe) behavior is acceptable.

According to Lupton, McCarthy et al. (1995), an HIV-test has symbolic value. The test symbolizes commitment and fidelity. Furthermore, a negative outcome is perceived to be a confirmation of their personal safe sexual history. The HIV-test provides security and familiarity (Lupton, McCarthy et al., 1995). This symbolic value of HIV-testing was supported in our interviews. Many interviewed Surinamese women - with or without their male partner- had been tested at the start of a new relationship as a token of how serious and meaningful the relationship was perceived.

A relatively high percentage of the interviewed Surinamese women had experience in contracting an STI. The women did not express fear or anxiety about STI. One of the misconceptions that the Surinamese women stated in the interviews was that all STI are treatable and curable. They also thought that men who have an STI are incompetent and impotent. This ruled out for them that their sexual partners could have an STI. However, women who had contracted an STI tended to take more caution with unsafe sexual contacts. Unfortunately this topic was not thoroughly discussed with the Antillean participants.

2.3.5. Safe sex negotiation

So far we have focused on describing condom use as a risk reduction strategy. Although condom use is probably the best risk reduction strategy, it may not be the most realizable strategy, if it were only because women are not able to control male condom use (Gollub, 2006).

Since the risks of unprotected sex in steady relationships may be very limited, especially if the relationship is long-term and monogamous, one could argue that a strategy of 'negotiated safety' – discarding condoms within a HIV-negative steady

relationship as long as safe sex agreements are negotiated to cover sexual behavior outside the steady relationship – would be a more adequate risk reduction strategy than condom use (Kippax, Noble et al., 1997). For this strategy to be effective, partners need to communicate and discuss sexual safety based on monogamy and safe sex with other partners, make agreements and keep to these agreements. Misovich et al. (1997) however, have argued that negotiated safety can only provide an illusion of safety, since many sexually active people will never meet all the criteria for safe monogamy. Relatively few people in stable relationship have been tested for STI and absolute post-test monogamy is not maintained by everyone (Davidovich, de Wit et al., 2000).

Our survey (appendix 1) suggested that negotiating safe sex often did lead to safer sex practices, such as negotiated safety, condom use, or non-penetrative sex. Half of the women with one or more partners in the 6 months preceding the study claimed negotiating safe sex and making agreements with their partners. Women who reported negotiating safe sex with their partner, more often reported to practice safe sex than women who did not report negotiation. The survey further revealed that women's intention to negotiate safe sex with a steady partner was primarily associated with positive attitudes toward negotiating safe sex, and believing peers think one should negotiate safe sex, i.e. higher injunctive social norms. Intentions to negotiate safe sex with a casual partner, conversely, were associated with positive attitudes and higher self-efficacy or perceived self-control. The results also showed that women who had negotiated safe sex with their steady partner reported more positive attitudes and more positive injunctive norm (appendix 1).

However, in Creole cultures little communication about sexuality takes place and if so, it frequently is concealed (Heemelaar, 2000; AIDS Foundation, 2002; NIGZ, 2002). Gras et al. (2001) suggested that lack of negotiating power of Surinamese and Dutch Antillean women is an important determinant of unsafe sexual behavior. This observation is echoed by various studies showing that communication and negotiation skills are of extreme importance for women to ensure sexual risk reduction (St Lawrence, Eldridge et al., 1998; van der Straten, Catania et al., 1998; Shain, Piper et al., 1999; Sheeran, Orbell et al., 1999; Pulerwitz, Gortmaker et al., 2000; Wingood & DiClemente, 2000; Bryan, Fisher et al., 2002; Crosby, DiClemente et al., 2002; Lam, Mak et al., 2004), and many interventions promoting safe sex among minority women have focused on building negotiation skills (Kalichman, Rompa et al., 1996; Wingood & DiClemente, 1996; Lauby, Smith et al., 2000; Mize et al., 2002; Johnson, Carey

et al., 2003; Albarracín, Kumkale et al., 2004). Other studies, however, suggest that women display a remarkable degree of assertiveness in sexual decision-making (Bird, Harvey et al., 2001), feel comfortable to discuss safe sex with their partner, and use a variety of effective negotiation strategies (Williams, Gardos et al., 2001; Lam et al., 2004). This suggests that lack of negotiation skills might not be the most crucial barrier for condom use, but that other personal and interpersonal factors like attitudes, motivation (Malow, Cassagnol et al., 2000), self-esteem (Salazar, Crosby et al., 2005), self-efficacy (Wingood & DiClemente, 2000) and trust and intimacy are more influential in accounting for inconsistent safer sex practices (Margillo & Imahori, 1998; Williams et al., 2001)

Our interviews revealed that many women did not initiate negotiating or communicating with their partner about sexual issues, such as past sexual histories, risky behavior, relationship status and STI/HIV-testing, because they did not see the need for it. Many women had serial monogamous relationships, which they did not perceive as risky; therefore they did not realize the importance of communicating with a partner about sexuality and safe sex.

In fact, most of the interviewed women indicated they felt rather comfortable and capable of negotiating safe sex in steady relationships. Discussing safe sex with casual partners was perceived as more difficult, and many women indicated that they found it hard to resist men 'smooth talking' them into having sex without condoms.

The interviews also indicated that the women tended to use a rather verbal-direct strategy, which was basically demanding safe sex, instead of trying to convince a partner with solid and persuasive arguments.

In general, sexuality remained somewhat of a taboo-topic between spouses, parents and children, and peers, as became clear from our interviews. People did talk about sex, but usually in mockery and using metaphors and proverbs. Not surprisingly in this context, women commonly reported that they usually did not initiate negotiation and communication with their partners about sexual issues, such as past sexual histories, risky behavior, relationship status and STI/HIV-testing. The lack of communication about safe sex also meant that the transition from condom use at the onset of a relationship to no condom use as a relationship progressed frequently occurred without communication about sexual risk behavior or STI/HIV-testing.

roles influence sexual decision-making and safe sex negotiation and could increase vulnerability of women for STI-infection. Most societies maintain a double sexual morality or standard, where men are dominant, sexually active, sex is perceived as a conquest and number of partners is an indicator of manliness (Campbell, 1995; Lundgren, 1999; Viveros, 2001; Helman, 2001). Women are expected to be sexually passive and submissive. Therefore, women are reluctant to initiate condom use because they can be seen to be too experienced (Waddel, 1996; Amaro & Raj, 2000). Characteristically there is a dichotomization between 'good' (i.e. sexually passive) and 'bad' (i.e. sexually active) women (Parker & Aggleton, 2003). Initiating and negotiating safe sex will be difficult for women as they fear being perceived as 'bad' women. Furthermore, the gender based power imbalance renders women more powerless when negotiating safe sex options with their male partners (Gomez & VanOss Marín, 1996; Amaro & Raj, 2000; Bajos & Marquet, 2000; Pulerwitz, Amaro et al., 2002; Foreman, 2003). Previous researchers have shown that many women rely on their male partners to initiate condom use. The male partner's attitude toward condoms significantly predicted condom use; the woman's attitude did not so (Jemmott & Jemmott, 1991; Foreman, 2003).

The household structure and family arrangements, which the participants described, reflected the matrifocal household structure described in § 2.2.5. The interviewed women fulfilled a central role in the household, often they were the main providers for their children. For instance, many of the interviewed women had their own income and the house leases were in their name (see also appendix 2). The interviewed women claimed to be able to rely on female solidarity and female social networks, frequently made up of female relatives, to maintain their independence.

Caribbean women are frequently portrayed as independent, autonomous, manipulative and dominating, whereas men are described as unreliable and unfaithful (Freeman, 2005). Indeed, the women in our interviews all appeared to be strong-willed, determined and independent. However, male-female relations, as anywhere, are based on some form of interdependence. Women may be independent and authoritative in the private domestic sphere, but rely on their male partners for extra income as men claim a more dominant role in the public sphere. The interviews further demonstrated sexual behavior, attitudes and beliefs to be culturally grounded in values regarding being a respectable and responsible woman, and feeling a desirable woman. Being a responsible woman refers to being in control, financially independent and self-supporting, creating opportunities for negotiating safe sex. Simultaneously, however, being a

respectable woman refers to being sexually reputable and maintaining steady partnerships, which seemed to limit safe sex negotiation as discussing sexual matters was perceived as indecent and safe sex as unnecessary in a steady relationship. Moreover, 'respectability' seemed to enforce not to question men's sexual infidelity. In addition, women's desire to feel like a woman, 'to tame the macho man' and constrain him into a steady relationship, also seemed to limit negotiation space because of feelings of emotional dependency. This ambiguity impacts on women's safe sex decision-making and on their willingness to negotiate safe sex strategies.

Though changing over time and less present among the second generations, a sexual double standard is still prevalent with distinctive gender roles and different sexual scripts for men and women. All participants mentioned the double standard regarding sexual behavior. Women have to account for their sexual actions, whereas men are stimulated to be sexually active and are supposed to be sexually experienced. Men generally exhibit riskier sexual behavior. Furthermore, it is acknowledged that they engaged in unprotected sex in their country of origin. Where men are stimulated to gain more experience and be sexually active, women are discouraged.

Most of the interviewed women had experienced an adulterous partner. Although our participants claimed that this is commonly accepted in the population, our participants all stated that they rejected 'bysides' and infidelity, and that their own current partner was faithful. Many of the participants have understood how unstable sexual relationships are from early childhood. Most women came from broken homes and had been raised by single mothers. They witnessed infidelity through the behavior of their fathers, uncles, brothers and other family members. Generally, women did not have multiple concurrent partners but engaged in consecutive unstable relations. Apart from losing their own respectability, women assumed that if they had other sexual contacts at the same time it would be disrespectful of their partner, and an attack on his masculinity. His peers would consequently disrespect him. Men were expected to be more experienced and active in sex, whereas women are expected to be respectable and responsible. Despite the independence through the matrifocal family structure, the interviewed women seemed emotionally dependent on their partners. Because casual sex was not acceptable for women, they often moved from seeing someone as a new partner to describing him as a steady partner.

influence sexual behavior. Not surprisingly certain subgroups might demonstrate riskier behavior than other groups. Our survey showed age differences regarding safe sex behavior; 53% of the women younger than 27 years of age reported practicing safe sex, compared to 29% of their older counterparts. Our qualitative study indicated a difference between the generations: the younger women seemed to have more experience using condoms and seemed to be more comfortable with condoms. Among the younger interviewees, condom use was seen as the appropriate behavior in new and non-serious relationships. Both sexes used similar arguments to use condoms, namely STI or pregnancy prevention. The younger generation tended to more and more associate condoms with safety. For the group of older women condoms were equivalent to contraceptives, because many of them did not completely trust the contraceptive pill. Though the older women had fewer sexual partners, condom use among older women was infrequent. Condom use was especially uncommon in the group of women who were 'back in the game'; women in their late thirties who had raised children, were divorced and were looking for a new partner. Although double standard is still present in their communities, many women had the feeling that this was changing over time. They indicated, for instance, that they wanted to raise their children differently from how they were raised themselves. Negotiation, open communication, initiative, mutual respect, open communication and equality between the sexes were more important.

Our interviews further indicated a small albeit interesting difference between the Dutch Antillean and Surinamese women. Many Dutch Antillean women seemed to uphold Catholic values, believing in romantic love, matrimony, a nuclear family, despite the fact that many women end up pregnant without a spouse. The Surinamese women seemed more pragmatic, realizing that they were as mothers and the heads of household independent of male partners. Characteristics of the ideal partner for Surinamese women were 'honesty', 'good understanding', and especially 'trust'. A man has to be there when you need him, he has to honor agreements, he has to listen and he has to discuss important issues. Surinamese women revealed that they wanted peace, stability and tranquility for their children, whereas Dutch Antillean women appreciated financial stability.

substantiated by national and international literature. Furthermore these results have been discussed in the expert panels and in the interviews held with intermediaries and key informants (see linkage system described in §1.6.). In this section these results are translated into a risk model (Figure 2.4.), adapted from the PRECEDE Model (Green & Kreuter, 2005). The description of the health problems and related behavioral and environmental factors are depicted in the risk model for sexual risk behavior among Dutch Caribbean women. The possible determinants of the behavioral and environmental conditions are also included in the model.

Each study addressed different issues, all taken account for in the risk model, translated to determinants of the health behavior. The survey that was conducted addressed the psychosocial correlates of safe sex negotiation. The objective of the qualitative study was to analyze the context of sexual (risk) behavior and whether the cultural background of Dutch Caribbean women in the Netherlands would prohibit or encourage women to discuss matters concerning sexuality with their partner, uncovering and understanding interacting structures of power and margins to negotiate safe sex within relationships and the matrifocal household structure.

From the results of the survey, we may conclude that unprotected sex is prevalent among women of Surinamese and Dutch Antillean descent in the Netherlands. It can further be concluded that safe sex has different connotations depending on the stability of the relationship, and that discussing and negotiating safe sex has a positive effect on safe sex practices. Positive attitudes towards risk reduction strategies and self-efficacy were also important determinants. Considering the role of injunctive social norms, the social network of women should be involved. Surinamese and Dutch Antillean women tend to label most sexual relationships as steady. Women should be aware of how steady they perceive their relationships in combination with the appropriate risk-reduction strategies.

The qualitative study helped to understand the cultural context of the sexual risk behavior of the women. The study focused on the relational context of sexual behavior. Taking into account the struggle of the Surinamese and Antillean women to negotiate safe sex, we may conclude that the cultural context of the Antillean and Surinamese women is both unfavorable toward negotiating and practicing safe sex, and supportive of change. The authority and independence within the matrifocal household grants Caribbean women opportunities to negotiate safe sex. This decision making power should be expanded, and

women should become aware of this personal authority and their capabilities to take charge and speak up. There is room in each relationship to negotiate safe sex practices. This is encouraged through a sense of responsibility and hampered by respectability and obstructed by emotional dependency on their partner. Women need to become aware of the ambiguity and contradictions in their perceptions of femininity.

The interviews illustrated important factors related to inadequate safe sex practices which included: lack of perceived risk based on the way relationships were categorized, perception that safer sex practices indicate lack of trust, perceived social norms, and lack of perceived need to communicate about sex and negotiate condom use. Women did not perceive themselves to be at risk for sexually transmitted infections because they believed they were having safe, monogamous relations. Therefore, they did not realize the importance of communicating with a partner about sexuality and safe sex or attribute risk to the man's behavior. They relate susceptibility to their own behavior, thus, if they experiment more with sexuality and have more sexual partners, they are more aware of the risks they take, and report more condom use.

These issues of dependency in the sexual relationship, depiction of relationships as stable when they are not monogamous, and taboos around communication about sex, provided the context for high rates of unprotected sex in what women perceived to be steady relationships. That relationships are framed as steady and intimate, even when they may in fact be risky, is especially important in understanding safe sex decision-making. In all of the relationships that are labeled as stable, condoms are associated with distrust, infidelity and promiscuity. In contrast to the discomfort reported concerning sexual communication, women stated they felt comfortable about and capable of negotiating safe sex in steady relationships. However, they did not experience themselves as at risk and argued that they did not feel the necessity to have such discussions.

In conclusion, there is a need for an intervention aimed at increasing consistent condom use and improving communication and safe sex negotiation. The most important factors or determinants influencing these behaviors are low personal risk perceptions and unrealistic optimism related to the perceived relationship status.

If women perceive their relationships as steady and their sexual partners as trustworthy, they fail to see the need to practice safe sex or negotiate safe sex with their partners. Injunctive norms, perceived sexual scripts and gender roles generated by the normative double sexual standard, generates a sexual culture in

Figure 2.4. Risk model for unsafe sex among women of Afro-Surinamese and Dutch Antillean descent

which concurrent partnerships for men are connived at, but where casual sexual partners are rejected for women. Subsequently women need sexual assertiveness, self-efficacy and self-esteem to negotiate safe sex practices. Furthermore lack of adequate negotiation and communication skills compound successful concurrence of safer sex practices. Therefore an intervention is needed to improve assertiveness and empowerment, by focusing on future prospects and strategic thinking; an intervention aimed at increasing risk perception and awareness through reflection on one's own sexual behavior, and at improving communication and negotiation strategies with partner through improving negotiation skills and self-efficacy.

In the second phase in health education program design, health promoters need to become as specific as possible about the changes they would like to accomplish with their program. They need to specify the broad conceptualized health promotion goals into detailed objectives, describing what the priority population specifically needs to 'learn'. The Intervention Mapping (IM) procedure for goal specification includes: (1) stating the health promotion outcomes for the program, (2) specification of the health promotion goals into subbehaviors or components that clarify the expected changes in behavior of participants of the intervention program (so-called performance objectives, POs), (3) analysis of the determinants of these sub-behaviors, and (4) connection of the performance objectives with the determinants to formulate change objectives. Subsequently, health promoters or program planners can specify what individuals need to learn to be able to perform the health behavior, or what must be changed in the organizational or community environment. So program planners end this first step with a series of lists of specific and detailed objectives per determinant of relevant sub-behaviors. Since these change objectives specify what needs to change and how this can be achieved, the list guides both program design and program evaluation – it is the map for further intervention development. The elements that go into the matrix – the behavioral target, its performance specification and aspects of the determinants – represented what the research team had discovered in the formative research and what the planning team had been made aware of during the planning from the linkage system. The risk model (Figure 2.4.) was discussed with members of the linkage system (see § 1.6.), the expert panel and in interviews and focus group discussions (FGD) with key informants. A meeting was held with the planning team discussing the procedures. The cultural compatibility of the health promoting behavior and the POs (see § 3.3.) were discussed with expert panels and in the interviews and FGD with key informants. The users group was also involved in deciding on the health promotion behavior and subsequently on the POs and change objectives.

3.1. Health promoting behavior

The initial goal of the project was to reduce the risk of STI/HIV-infection among women of Afro-Surinamese and Dutch Antillean descent. The best protection from heterosexual transmission of HIV is the practice of 'safer sex', in particular condom use (Gielen et al., 1994).

Even though the formative research (§ 2.3.1. and § 2.3.2.) identified inconsistent condom use as an important risk behavior among these women with both regular and casual partners, the assessment of the context in which this risk behavior takes place complicated the decision on the performance targets of the intervention.

Our formative research showed, for instance, that perceived relational status has an important impact on safe sex practices (see § 2.3.2.). Similar to previous studies among women of Surinamese and Dutch Antillean descent, and numerous other studies on sexual risk behavior, we observed high rates of unprotected sex in primary or steady long term relationships. Consistent condom use is substantially lower in these steady relationships than in new relationships or casual contacts (Misovich et al., 1997; Gras et al., 1999; Macaluso et al., 2000; de Visser & Smith, 2001; van Empelen, Kok et al., 2003; Wiggers et al., 2003; van Empelen & Kok, 2006).

Consistent condom use was not perceived to be a very realistic safe sex strategy for women in long-term steady relationships. Other safe sex strategies might be more feasible and therefore more effective in achieving sexual risk reduction in long-term relationships (de Visser & Smith, 2001). Since the risks of unprotected sex in steady relationships may be very limited, especially if the relationship is long-term and monogamous, one could argue that a strategy of 'negotiated safety' would be a more adequate risk reduction strategy than consistent condom use (Kippax et al., 1997). Misovich et al. (1997), however, have argued that negotiated safety can only provide an illusion of safety, since many sexually active people will never meet all the criteria for safe monogamy. Relatively few people in stable relationships have been tested for STI and absolute post-test monogamy is not maintained by everyone (see § 2.3.5. for the main findings regarding negotiating safe sex). For negotiated safety to be effective, partners need to communicate and discuss sexual safety based on monogamy and negotiate safe sex with other partners, and finally make agreements and keep to these agreements. Adept communication and negotiation skills and acknowledging the necessity to use these skills are requirements of practicing this reduction strategy.

Development of effective sexual risk reduction programs for women depends in part on the extent to which appeals for 'safer sex' practices are culturally relevant and derived from a sound understanding of the beliefs and needs of the priority group (Gielen et al., 1994). Hausser (1997) concludes that interventions which were more successful had adopted risk reduction strategies which were compatible with the needs and patterns

of partner interaction. These risk reduction strategies should also be attainable, within reach, for the priority group. As stated before these possible risk reduction strategies were discussed in meetings with the users group, expert panels and FGD with key informants.

Dutch Caribbean women were basically in charge of family life, with the men in a subsidiary role moving in and out of the family domain. In other words, the women had some decision-making power within the matrifocal household structure (see § 2.3.6.). On the other hand, the men seemed very much in control of the sexual domain and the women expressed fear of disrupting their relationships by opting for condom use (see also Terborg, 2002). Watson & Bell (2005) also found similar conflicting patterns: Women viewed themselves as competent, responsible, and mature in terms of their relationship and sexual choices. However, they did not actually practice or initiate safe sex. The women in our qualitative study (see § 2.3.2.) described their relationships as stable and yet acknowledged that their men had additional partners. They considered themselves 'respectable' women, and as respectable women they would engage in respectable relationships which are inherently safe (§ 2.3.6.). They did not realize they could be at risk. The conflicting patterns suggested the need for promoting better appraisal of risk factors in relationships and the need for flexibility in choosing appropriate and attainable safer sex strategies.

Taking into account the gender imbalances between partners and the conflicting patterns in safe sex behavior (see § 2.3.6.), the planning team decided that our intervention should focus on awareness, assertiveness and empowerment in addition to improving communication and negotiation with a sexual partner. The health promoting behavior should encompass more than merely condom use, but focus on women being able to make choices about their own safe sex strategy (Gollub, 1999; Wyatt, Vargas Carmona et al., 2000; Watson & Bell, 2005; Gollub, 2006; Romero et al., 2006). The planning team, in close collaboration with program users and in accordance with key informant consultation therefore decided to focus the program on improving women's capacity to control their own sexual health decision-making and to commence and maintain healthy relationships. This health promoting target implied relationship appraisal and matching behavioral responses to their personal risky situations.

Figure 3.2. Flowchart of application of theoretical concepts in development of performance objectives

3.2. Theoretical framework for developing performance objectives

Our formative research, described in chapter 2, as well as the selection of performance objectives, the determinants and the change objectives, was guided by several theoretical principles. Although numerous individual-level AIDS behavioral theories exist in the literature, there is currently no consensus as to which theory is most precise in explaining or predicting STI/HIV risk behavior. All of the behavioral theories have strengths and weaknesses. It is the task for an interventionist and the planning team to select the theories which best fit the particular prevention objectives (see Noar, 2007).

The flowchart (Figure 3.2.) illustrates the theoretical constructs used in our studies, the conceptual study findings, and the constructs used for developing our performance objectives.

Risk perception, safe sex negotiation and gender issues emerged as important themes from our literature research on factors influencing women's safe sex behavior. Literature on risk perception and safe sex negotiation substantiated the use of social psychological theories in our study of determinants of safe sex negotiation. The Integrative Model of Behavioral Prediction (Fishbein, 2000) incorporates what most behavioral theories suggest are three critical determinants of a person's intention for behavior change: (1) the person's attitude toward performing the behavior, based on one's beliefs about the consequences of performing that behavior; (2) the perceived social norms, which include the perception that important others support the person's behavior (injunctive social norms) and that those others are performing the behavior themselves (descriptive social norms), and (3) self-efficacy, which involves the person's perception that he/she can perform that behavior under a variety of challenging circumstances (Fishbein & Yzer, 2003). The relative importance of these variables as determinants of intention for behavior change depends on both the specific behavior and the population being considered.

According to this model the behavior is more likely to occur if one has a strong intention to perform the behavior and if one has the necessary skills and does not encounter environmental constraints. However, if a person has not yet formed an intention, health promoters should gain an understanding of the determinants – attitudes, social norms and self-efficacy. An intervention should be directed towards changing these determinants. Our survey (see § 2.3.5. and appendix 1) on determinants of intention to negotiate safe sex strategies, revealed that attitudes towards safe sex strategies and injunctive norms were important in steady relationships and attitudes, and self-efficacy in casual relationships. Alternatively, if a person

has strong intentions but does not act on them, the intervention should be aimed at skills-building, e.g. communication and negotiation skills, and removing or overcoming constraints, e.g. dealing with persuasive partners (Fishbein & Yzer, 2003).

To identify associations between risk perceptions and sexual negotiation, we also included the Risk Behavior Diagnosis (RBD) scale, derived from the Parallel Process model (Witte, Cameron et al., 1996), in the survey targeting safe sex negotiation (see § 2.3.5. and appendix 1).

Besides the influence of these determinants of intention to negotiate and practice risk reduction strategies, the survey revealed that the (perceived) relational context influenced personal risk perception, intention and negotiation practices. Different determinants influenced intention for casual – attitudes and self-efficacy –, or steady relationships – attitudes and injunctive norms (see § 2.3.5. and appendix 1).

Study of the literature on gender and power inequalities indicated the relevance of gender issues, gender roles and sexual scripts, and relational contexts for safe sex decision-making and negotiation between partners. To analyze the relevance of these issues for our priority population, concepts from the Theory of Gender and Power (Connell, 1987), as defined by Wingood and DiClemente (2000), were integrated in the in-depth qualitative interviews and FGDs: sexual division of labor within the household, sexual division of power, affective attachments and normative gender roles. Women were questioned about their relationships, perceived gender roles and sexual scripts (see § 2.3.2., § 2.3.3., § 2.3.5. and § 2.3.6. and appendix 2). Our findings (§ 2.3.6.) in relation to power imbalances indicated the need for a more female focus on power, especially when accounting for the matrifocal family structure, in which women form the center of the family. The Reciprocal Empowerment model (Darlington & Mulvaney, 2003) combines empowerment and personal authority models. According to Darlington and Mulvaney (2003) personal authority may be obtained by gaining knowledge, independence, self-determination and learning skills to set goals, make choices and pursue these choices. Empowerment is based on attributes such as consensus, competence, collectivity, compassion and companionship. Societal power inequalities and even relational power relations are difficult to change through health promotion targeting only women. However, consciousness of balances of power in society and personal relationships, contributes to self-confidence and self-esteem and obtaining insights into possibilities to deal with these inequalities (Bertens, 2003). The qualitative study (see appendix 2) clarified that responsibility and respectability are core values

of femininity and within the matrifocal household structure the Dutch Caribbean women possess personal authority and independence (see § 2.3.6.). Furthermore the attributes of collectivity, companionship, solidarity and compassion are incorporated in the female social networks which the interviews have shown to be important to the participants (see § 2.5.5., § 2.3.3., § 2.3.6. and appendix 2).

The interviews of the qualitative study revealed that many women had used condoms. However, condom use seemed very inconsistent, either within relationships or with the same partner. Very few women had consciously decided to use condoms. Concepts from the AIDS Risk Reduction Model (ARRM) seemed useful in annotating proximal program objectives (Catania et al., 1990; Abraham, Sheeran et al., 1998). The ARRM is a stage theory and it can be applied to explain why people make deliberate changes. The ARRM consists of three stages: labeling stage, commitment stage and enactment stage. Issues of responsibility and taking control of personal sexual and relational well-being through awareness and self-consciousness are common in both the ARRM and the Reciprocal Empowerment Model. Self-determination, making deliberate choices and personal authority were all important concepts derived from the formative research. Our interviews with the intermediaries provided further support to focus on ownership, female solidarity, social networks, personal authority and empowerment.

Merging our findings from the formative research and the theoretical concepts into a set of theory-based performance objectives was a complex task. Considering the circumstances of each relation and sexual encounter with its own functional risk reduction strategy, setting a general standard behavioral objectives will be impractical. Using self-regulatory theory (Boekaerts, Pintrich et al., 2000) in constructing the performance objectives for the intervention seemed logical. The central premise of self-regulatory theory is that people are able to regulate their health through goal-setting, generating strategies to reach those goals, and evaluating the effect of those goals (Boekaerts et al., 2000; Zimmerman, 2000). The objective of self-regulation is to learn various strategies that could have a positive health outcome.

3.3. Performance objectives

The general program objective was that women improved capacity to control their own sexual health decision-making and to commence and maintain healthy relationships. Subsequently, performance objectives on the basis of self-regulation theory

Figure 3.3. Performance Objectives (POs)

were specified (Boekaerts et al., 2000; Zimmerman, 2000). In other words, when people successfully regulate their behavior, they analyze their situation; compare their behavior to a personal norm or other standard, decide whether there is a need for change and use and evaluate strategies that are suitable and realistic in their own personal situations. Self-efficacy and outcome expectations are important determinants. It is motivating if people believe they are capable of performing the new behavior and execute the strategies, anticipating favorable results. Cultural aspects like women's position in the matrifocal family structure, the importance of 'being a responsible woman' (§ 2.3.6. and appendix 2) and conceptions of trustworthy sexual relationships, were incorporated as facilitating factors, in both performance objectives and program change objectives.

Zimmerman (2000) distinguishes several self-regulatory levels: (1) self-observation, gaining insight into one's own behavior and its consequences; (2) self-evaluation, comparison of one's own behavior with a directive behavior and describing the motives and possible causes and consequences of that behavior; and (3) self-confirmation, correcting one's own behavior. It is a continuous cycle of forethought, performance and self-reflection (Zimmerman, 2000).

The performance objectives for this intervention, based on self-regulatory theory, are shown in Table 3.3. The performance objectives denote a continuous cycle. In line with the literature (Hausser, 1997), our interviews showed sexual practices and practicing safe sex, or not, vary over time. Each sexual event is different, and sexual behavior varies over time and context (Ahlemeyer & Ludwig, 1997). Every relationship and each sexual incident requires observation, evaluation and a specific safe sex strategy. Once women learn the basic skills, the cyclical self-regulatory process should become an automatic *modus operandi*.

The feasibility of the performance objectives was verified by the different groups from our linkage system, in particular the interviews and FGD with the intermediaries and key informants and the expert panels. The personal responsibility that is imbedded in the performance objectives appealed to the women. Through awareness raising, the women felt they could make personal choices about safe sex practices that were relevant for their own situation; condom use was not imposed on them. They were particularly satisfied that the performance objectives were not moralizing or stigmatizing. This would enhance a sense of ownership, they felt.

3.4. Matrices of change objectives

Determinants of self-regulation of safe sex decision-making were identified based on our formative research, as well as on reviews of existing literature and applicable theories. From the formative research (§ 2.3.2. and § 2.3.3.), it was clear that lack of perceiving risk was an important determinant of unsafe sex and was continually bolstered by categorizing relationships as stable. Women also talked about an inability to negotiate safe sex, indicating a lack of confidence or self-efficacy, and ineffective techniques, suggesting lack of skills (see § 2.3.5.). Women also described the belief that demanding condom use implied lack of trust and possible promiscuity, implications that would disrupt the relationship, response efficacy.

As illustrated in the risk model (Figure 2.4.) the determinants for sexual risk behavior were low personal risk perceptions and perceived susceptibility, the association of condoms with distrust, infidelity and promiscuity, emotional dependency on a male partner, belief partner would not use a condom, lack of awareness, low response efficacy, perceived gender roles and sexuality as taboo topic.

The determinants which were considered of importance in behavior change were: knowledge, perceived susceptibility, personal risk perception, risk awareness, self-efficacy or sexual assertiveness, perceived and injunctive social norms, perceived social support, awareness of relational status, attitudes toward sexual risk reduction strategies, communication skills, problem solving skills, self-regulatory skills, response efficacy and motivation.

On the basis of the performance objectives and determinants, matrices of change objectives were created. The matrices specify the change objectives at the intersections between the performance objectives for safe sex decision-making and the determinants. The change objectives define what needs to change to accomplish the performance objective. The matrices of change objectives provided the foundation both for developing intervention components and planning the program evaluation. Table 3.4. depicts behavioral performance objectives (rows) and the correlates of behavior that could be derived from our formative research and theory (columns). The cells of the matrices comprise change objectives, specifying the immediate targets of the behavior change intervention.

Table 3.4. Matrix of change objectives: After the intervention women of Dutch Caribbean descent will be able to:

Performance Objectives	Knowledge/Awareness	Risk perception / perceived susceptibility
P.O. 1. Analyze personal risk 1.1. Observe (monitor) past and current sexual behavior 1.2. Compare sexual behavior with a standard non-risky behavior 1.3. Evaluate own past and current sexual behavior on risks 1.4. Decide on personal risky situations and risky partners	<ul style="list-style-type: none">• Identify STI/HIV transmission routes• Identify wrong beliefs about transmission, risk, safe sex strategies• Identify protection measures (proper condom use)• List 10 most common STI• Explain symptoms of STI• Name which STI can be treated and how	<ul style="list-style-type: none">• Acknowledge seriousness of STI• Describe personal risk• Identify risky situations & partners• Describe and question own sexual behavior, past and present• Recognize the possibilities to engage in risky behavior• Acknowledge severity of STI/HIV
P.O. 2. Analyze and gain insight into personal relational power situation 2.1. Observe (monitor) power and personal authority in sexual relationships 2.2. Evaluate personal power and personal authority	<ul style="list-style-type: none">• List important connotations of their relationship• Describe differences between casual and steady relationships• Describe significance and meaning of sex in their relationship and for their well-being• Acknowledge differences of men-women roles in their (sexual) relationship• List situations and how much influence and power they have to control it	<ul style="list-style-type: none">• Recognize role in their power relation with male partners (past, present and future), in different relationships• Endorse personal relevance of the power differential in relationships, in different relationships
P.O. 3. Generate safe sex possibilities 3.1. Evaluate realistic possibilities 3.2. Select the most realistic safe sex option for personal situation	<ul style="list-style-type: none">• List possibilities to practice safe sex in risk situations strategies• List evaluation criteria	<ul style="list-style-type: none">• Explain that the selected strategies must be well matched to the situation• Explain that not using these strategies will result in return to risk situation

Skills and Self-efficacy	Social-comparison/ perceived social norm	Perceived social support	Response efficacy
<ul style="list-style-type: none"> • Demonstrate capability to conduct a personal risk evaluation (introspection, evaluation, conclusion) • Express confidence in executing a risk analysis • Demonstrate confidence in analyzing partner's beliefs 	<ul style="list-style-type: none"> • Describe risk attitudes of valued friends and peers • Acknowledge important others belief one should practice safe sex • Acknowledge partner beliefs one should practice safe sex • Acknowledge important others practice safe sex 	<ul style="list-style-type: none"> • Experience approbation of important others to engage in safe sex 	<ul style="list-style-type: none"> • Explain that if they analyze personal risks they will make better decisions about health and relationships
<ul style="list-style-type: none"> • Express confidence to discuss sexuality • Express self-confidence to confront partner with his behavior • Demonstrate how they deal with their casual and/or steady partner 	<ul style="list-style-type: none"> • Identify power inequalities within subculture • Describe influence of power inequalities on sexual behavior 	<ul style="list-style-type: none"> • Seek social support • Name important other to discuss problems • Name person to discuss personal feelings and emotions • Name person who will understand problems 	<ul style="list-style-type: none"> • Expect that recognizing power relations will increase their ability to choose strategies with realistic outcomes
<ul style="list-style-type: none"> • Articulate confidence in generating a variety of strategies • Demonstrate generating a variety of strategies • Demonstrate generating a variety of alternatives to solve problem situations (including searching info and seeking social support) 	<ul style="list-style-type: none"> • Describe how friends and peers are being flexible, creative and assertive in generating possibilities 	<ul style="list-style-type: none"> • Seek support for generating and considering safer sex strategies 	<ul style="list-style-type: none"> • State positive responses of different safe sex strategies • Describe pros and cons of safe sex • Work out solutions for cons until the pros predominate • Underscore the value of using different strategies (Flexibility)

Table 3.4. (continued)

Performance Objectives	Knowledge/Awareness	Risk perception / perceived susceptibility
PO.4. Negotiate safe sex with partners 4.1. Observe (monitor) past and current safe sex negotiation 4.2. Evaluate own past and current safe sex negotiation 4.3. Negotiate safe sex options with partners 4.4. Set boundaries and express conviction to keep boundaries 4.5. Come to an agreement with partner on practicing safe sex	• List steps of successful negotiation	• Exhibit clear intention to practice safe sex
P.O. 5. Execute most realistic safe sex strategy	• List most realistic safe sex strategies	
P.O. 6. Evaluate selected safe sex strategy	• List criteria for evaluation	

Skills and Self-efficacy	Social-comparison/ perceived social norm	Perceived social support	Response efficacy
<ul style="list-style-type: none"> • Indicate confidence in skills to progress through all steps of negotiation • Describe situations in which they can initiate safe sex talk (place and time) • Summarize goals they wish to set with partner • Anticipate possible reaction/ response of partner • Demonstrate listening to partner • Demonstrate discussion skills relating to arguments of partner • Demonstrate replies to arguments of partner • List solutions to possible arguments of partner • Exhibit assertiveness and describe confidence to discuss sexuality with partner 	<ul style="list-style-type: none"> • Express belief that important others discuss sexuality with partners • Describe how friends and peers negotiate safer sex and are able to maintain relationships 	<ul style="list-style-type: none"> • Seek support for negotiating and dealing with consequences 	<ul style="list-style-type: none"> • Describe personal conviction that negotiation will result in better relationship and satisfaction for both partners • Express belief that negotiation results in safer sex • Express conviction that safe sex is a requisite for having sex
<ul style="list-style-type: none"> • Demonstrate the different coping strategies available to them • Demonstrate problem solving skills 	<ul style="list-style-type: none"> • Express beliefs others execute same sex strategies 	<ul style="list-style-type: none"> • Cultural acceptance of strategies 	<ul style="list-style-type: none"> • Executing safe sex will not disrupt relational satisfaction of both partners
<ul style="list-style-type: none"> • Capability to conduct evaluation • Pros/cons, pros predominate • Coping strategies • Flexibility and problem solving 		<ul style="list-style-type: none"> • Seek support 	<ul style="list-style-type: none"> • Evaluation will help in choosing best strategies in future

IM3: Theoretical methods and practical strategies

The third step in program development concerns the selection of theoretically based intervention methods that may be effective in accomplishing the proximal program objectives, and the translation of these methods into practical intervention strategies and materials. For instance, a theoretically based method for enhancing self-confidence in performing a particular behavior is modeling or learning by observation. A practical intervention strategy for this method could be role-playing and/or watching competent models on video. Theoretically based intervention methods can be derived from the scientific literature on the subject. Information about the feasibility and effectiveness of practical intervention strategies can be derived from formative research, contacts with other health promoters, collaboration with program implementers and users, and from small-scale pilots. An important task at this step is to identify the conditions that may limit the effectiveness of intervention methods and strategies. A method or strategy that has proven to be effective among a particular priority group in a particular context will not necessarily be effective among other populations or in other contexts (see Kok et al., 2004).

IM4: Program Design and Production

In Intervention Mapping (IM) step 4 program developers design a plan for the production and delivery of the program. This step involves organizing the strategies into a deliverable program taking into account priority groups and settings, and production and pilot testing of the materials. To integrate separate strategies into one coherent program, health promotion planners have to make decisions on the program structure, its scope, the sequence of strategies, and the communication channels. In this phase, planners usually collaborate with producers, such as text writers, graphic designers and video producers. Planners' major task is to convey program intent to producers, and to guard whether final program products adequately incorporate the theoretical underpinnings. This step also involves systematic pre-testing of pilot materials.

IM5: Program Delivery

The production of the program must be closely linked to the planning of program adoption and implementation, since reliable diffusion procedures are essential to program impact. The first task of IM step 5 is to develop a linkage system, a structure to connect those who are developing the intervention

and those who will use the program, such as the priority population, intermediaries, and stakeholders. The linkage system should enable collaboratively developed user relevant interventions, and should furthermore stimulate the diffusion process of adoption and implementation (Bartholomew et al., 2006). In accordance with IM, the linkage system had been developed and was involved from the beginning and throughout the development of the intervention (§ 1.6.).

In addition IM step 5 describes how program developers can set objectives for program adoption, implementation and maintenance, and how they can link these objectives to theoretical methods and practical strategies for promoting adoption and implementation. Thus, health promoters not only need to develop interventions to change individual behavior, but also interventions to facilitate program adoption and implementation. Furthermore, program planning should address the sustainability of the program. Health promoters need to encourage institutionalization of the program to ensure program impact over an extended period of time. The anticipation of program adoption, implementation and maintenance is important from the beginning of the planning process (Bartholomew et al., 2006).

4.1. Process of program design and choosing methods and practical strategies

To facilitate sustainability of the program, it was decided early in the development of the program that the implementation plan included national organizations, i.e. the National Institute of Health Promotion and Disease Prevention (NIGZ), responsible for the training of migrant health educators, and Municipal Public Health Services employing migrant peer educators. In this phase of the intervention development a planning team was created, consisting of researchers, peer health educators who were to deliver the program, coordinators of the Municipal Public Health Services who were to adopt and implement the program and trainers of the peer health educators who were to develop the training for the health educators.

There has been a lot of debate on whether to use lay or expert health educators (see Durantini, Albarracín et al., 2006). Albarracín et al. (2006) conclude in their review of interventions that expert intervention facilitators are more effective than lay community members, and they are most effective if they also share the gender ethnicity of the priority audience. Anticipating sustainability and implementation of our program, it was decided to make use of the peer health educators employed by

the Municipal Public Health Services, called Education in own language and culture (Voorlichting Eigen Taal en Cultuur (VETC)²) instead of training lay community members. This network is used in many health promotion activities in the Netherlands (Vrolings et al., 2006). However, by employing this network the planning team had to take into account their level of expertise, their skills as facilitators and capacity for further enhancement of their skills. The program needed to fit the organization of the network.

As has been described in the introduction, IM is a cyclical and iterative process. The planning team needed to verify whether the performance objectives in the previous step (chapter 3) were feasible. The research team had selected performance objectives incorporating the deep cultural structure based on self-regulation theory, which also specified methods of self-monitoring or self-observation, self-evaluation, and self-reaction or reinforcement to encourage processes of goal setting, observing behavior and revising goals (see Clark, 2003). However prior to the development of the training of the VETC, in discussion with the users group (see linkage system § 1.6.) consisting of trainers, the coordinators and the VETC, the research team and the planning team realized that the primary program objectives were difficult to reach. Providing health promotion within the program required a very different approach from what the VETC were accustomed to. The coordinators of the Municipal Public Health Services and the educators themselves were interviewed on several occasions to discover their experience, skills, motivations, deficits and needs for training. To train the health educators to fully implement self-regulation and the seven performance objectives, would imply a time consuming formal and on-the-job training and much supervision. Furthermore the program itself would encompass more resources than were allocated. Due to financial limitations and restrictions in time and resources, and anticipating achievement of the program, it was therefore decided to focus primarily on the performance objectives relating to consciousness and awareness raising, understanding available risk reduction strategies and skill improvement executing these strategies. Hence, the change objective matrix was revised and some of the change objectives were discarded.

Instead of applying self-regulation as the main method for behavior change, consciousness raising (Prochaska, Redding et al., 2002) and active learning were employed (Bandura, 1986).

² More on the background of the VETC is described in the section on the training of the VETC.

Table 4.1. Re-defined performance objectives

	After the intervention the participating women will be able to:
P.O.1	<p>... analyze personal STI/HIV risk</p> <p>1.1.... observe past and current sexual behavior</p> <p>1.2... compare sexual behavior with a standard non-risky behavior</p> <p>1.3... evaluate ones own past and current sexual behavior on risks</p> <p>1.4... decide on personal risky situations and partners</p>
P.O. 2	<p>... analyze and gain insight into personal relational power situation</p> <p>2.1... observe power and personal authority in sexual relationships</p> <p>2.2.... evaluate personal power and personal authority</p>
P.O. 3	<p>... be aware and practice skills of several risk reduction strategies</p> <p>3.1. ... negotiate with partners</p> <p>3.2. ... condom use</p>
P.O. 4	<p>... be able to choose their personal most realistic risk reduction strategy</p>

In order to translate these general methods into a culturally sensitive and implementable program, the production groups (see § 1.6.) relied on a constituent involving approach: Women, (lay) minority health educators, intermediates, representatives of minority organizations and experts were involved in the program design process by means of brainstorm sessions, individual and group interviews, and feedback panels. Based on the outcomes of this participatory planning/collaboration a working list of potentially useful strategies and materials was developed. Available STI/HIV education program materials targeting migrant populations (Knapen, 2003) were reviewed by the planning teams taking the matrix of proximal program objectives as the basis for implementation. Possible strategies were discussed regarding their appropriateness, feasibility, and expenses. Finally, methods and strategies were sorted on their potential effect on the change and performance objectives. The final selection of program methods and strategies is summarized in Table 4.4. Information provided by expert panels, intermediaries and informal leaders was also very helpful in selecting methods and strategies.

4.2. Program description: Uma Tori! Kòmbersashon di hende muhé

For delivery of the program methods and strategies, the production group and users group settled upon group sessions. The qualitative study in the formative research (see § 2.3.6.) had shown that women could rely on female social networks. Evaluation reviews of interventions aimed at minority women have show the potential effectiveness of multiple session, small group education with the use of peer educators focusing on risk perception and sensitization, negotiation and communication skills building, with an emphasis on sexual assertiveness, power inequalities and gender related influences (Wingood & DiClemente, 1996; UNAIDS, 1999; Mize et al., 2002). Actively engaging audiences using methods derived from a combination of self-efficacy models and information-motivation and behavioral skills has also been described as effective (Albarracín et al., 2006).

The resulting program is called 'Uma Tori! Kòmbersashon di Hende muhé', meaning 'Women's stories! Conversation between women' in respectively Sranan and Papiamentu. It is a 5-session – about 2.5 hours each – interactive small group education. The groups are made up of 7 to 15 women; small enough to be intimate but large enough to be able to discuss different perspectives.

Home parties and Tupperware party models for recruitment

A major challenge for the program was to reach and motivate women, the priority population, to attend the program and be present at all five sessions. The planning team (§ 1.6.) had long discussions about the theme of the program. STI/HIV seemed a theme that would guarantee no participation, so the program was introduced under the umbrella of women conversing about and discussing relations and sexual health, which is in accordance with the needs of the women and the proximal program objectives.

Locating and developing structural support for themselves is empowering for women (Jenkins, 2000). To reach and motivate women of the priority populations to attend the program and be present at all 5 sessions, the program relied on elements from the 'Tupperware party', as was developed by Earl Tupper as 'Hostess Group Demonstration Plan' in 1938 to promote sales for his Tupper Plastics Company, and elements of the 'Home party' approach (see Boelhouwers, Eling et al., 2001). The basic idea of the delivery of Uma Tori was that VETC selected hostesses from their network, preferably women with a central position in the community. These hostesses, in turn, would set up women groups selected from their social networks. Ferrand & Snijder, (1997) claim that such a 'Two-step flow' enhances the effect of the message. The effect of message becomes more powerful when relayed by a 'local' opinion leader.

A hostess organized the group meetings; she was responsible for the logistics of the intervention. She created the group from her own social network, which could be an informal network of friends, neighbors, or relatives, or a more formal network of a religious community, a self-help group, or organization. The women in the group had to share a common interest, assuring some sort of group cohesion. This approach fitted within the women's matrifocal socio-cultural context, part of the deep structure, where women rely on female social networks for social support and female solidarity.

Though the hostess organized the meetings, provided food and drinks, set the dates and send invitations, she was also part of the group. Traditionally 'home parties' are held in the home of the initiator. The central idea was that the meetings were held in familiar locations where the women felt at ease. This could be in the homes of the hostesses, of the participants, but it could also be at a community center or a location where the group would regularly meet. Guarding the privacy of 'your own home' is a major characteristic of Dutch Caribbean culture; social life is principally outdoors and only very close friends and family are invited to the house, as members of the linkage system had revealed.

The health workers recruited hostesses with whom they worked together in the intervention. The hostesses did not need to fulfill strict requirements; however, they had to have a social network and possess organizational skills. They also were expected to be able to form a team with the educator, to be enthusiastic, inspiring, persuasive, and convincing. After completing 5 sessions of the program, all participants were awarded a certificate and became eligible to become hostesses and form their own groups.

4.3. Theoretical methods of Uma Tori

As the name of the intervention 'Uma Tori' (Women's stories) implies, the intervention groups focused on the women's stories and the sharing of experiences. The program was based upon such pedagogic strategies as problem-based learning (Barrows, 1986; Duffy & Savery, 1994) and observational learning (Bandura, 1986).

Groups were stimulated to define their own problems on the subject of sexual relationships and safe(r) sex, and to set their own learning objectives, monitored and supervised by the VETC. The production group and planning team proposed sessions that included sharing personal experiences and discussing relational issues to increase appraisal of personal risk situations. These sessions should empower women to set personal and realistic goals in maintaining healthy relationships. It should be appealing to women to take on responsibility for their own actions. Intervention activities should relate to the realities of women. Core values of being a Dutch Caribbean woman (see § 2.3.6. and appendix 2) were incorporated in the intervention.

The risk model (Figure 2.4.) and the determinants for behavior change (see §3.4.) acknowledged social norms as an important determinant. Interpersonal discussions are certainly influential in changing norms (Ferrand & Snijder, 1997). Personal moral norms are enhanced by small group discussion on values and norms (Godin & Kok, 1996). Norms on safe sex will be stronger in contexts and subcultures with freedom in talking about sex than in subcultures with a taboo on frankly talking about sex (Ferrand & Snijder, 1997). Promoting a free atmosphere in talking about sexual experiences and sex, without references to HIV/STI, was to be encouraged. Individuals are embedded in social networks. Feedback between the different individuals in a social circle will help change perceived social norms. This approach indicated reflection on one's own beliefs, norms and behavior, non-judgmental small group discussions of learning materials, question posing and self-disclosure as basic methods to

accomplish critical consciousness (Freire, 1983; Wallerstein & Sanchez-Merki, 1994).

But it is the behavior of others not the explicit norms that influences individual behavior (Ferrand & Snijder, 1997). If individuals perceive changes in sexual patterns in behavior of others in their personal network, they will change their expectations and norms, which in turn will change their behavior and their changed behavior will again influence the behavior of others in their social network (Ferrand & Snijder, 1997; Hausser, 1997).

Mobilizing a supportive social network was considered a method to change social influence and perceived social norms (see risk model Figure 2.4.), as was modeling, or vicarious learning which is learning through observing others, as described by Social Cognitive Theory (SCT) (Bandura, 1986). Self-help groups serve as social comparison and provide social support (Bartholomew et al., 2006). The importance of reinforcement of role models is highlighted by (Baranowski, Perry et al., 2002).

The risk model (Figure 2.4.) furthermore discerned risk perception and susceptibility as an important determinant. The ARRM (Catania et al., 1990) suggests that people need to first recognize and label their own risk, before making a commitment to reduce risk and taking preventive action. Knowledge of risk behavior, personal risk perception, a positive attitude and social norms can all be of influence to change somebody's risk perception. The ARRM does not specify any clear methods and strategies to achieve these phases.

The Transtheoretical Model (TTM) (Prochaska et al., 2002) on the other hand, does provide methods to guide individuals from moving from one stage to the next; from pre-contemplation to contemplation to preparatory to action and finally maintenance. The TTM recommends several methods to change risk perceptions and to raise awareness: consciousness raising (finding and learning new facts, ideas and tips to support behavior change), dramatic relief (experiencing negative emotions like fear, anxiety and worries when performing harmful behavior) and environmental re-evaluation (realizing the negative impact of the unhealthy and the positive impact of the healthy behavior) (Bartholomew et al., 2006). Risk comparison, self-examination, re-evaluation of outcome expectancies and perceiving the advantages and disadvantages of outcomes of respectively healthy and unhealthy behavior are other methods proposed by Prochaska (2002) to change from pre-contemplation to contemplation of the desired behavior.

Methods for self-re-evaluation are clarifying values, role models, and mental imagery. Methods which are useful in environmental

reevaluation are empathy training and viewing documentary (Prochaska et al., 2002). Fear-arousing communication was also discussed as a method for risk-awareness and consciousness raising. There exists much debate on the effects of using fear arousing messages and images (Ruiter, Abraham et al., 2001; Green & Witte, 2006). For instance, Albarracín et al. (2006) claim in their meta-analyses that fear arousing methods are not effective. However Albarracín, Leeper et al. (2007) show in their review of interventions aimed at Latin Americans that fear has a positive effect on condom use, but in another review of HIV-interventions Earl and Albarracín (2007) claim fear arousal has a negative effect. Others have argued that fear may be a strong motivator to change behavior, on condition that self-efficacy is adequately dealt with (Bartholomew et al., 2006).

The planning team wanted women to be aware of their personal situation, gender roles and power in their relationships. The Reciprocal Empowerment model (Darlington & Mulvaneu, 2003), suggests that personal authority may be obtained by gaining knowledge, independence, self-determination and learning skills to set goals, make choices and pursue these choices. Consciousness of balances of power in society and in personal relationships, contributes to self-confidence and self-esteem and obtaining insights into possibilities to deal with these inequalities. However, like ARRM, this model does not clarify methods to change these determinants (Bertens, 2003; Bartholomew et al., 2006).

Bandura (1986) suggests methods like modeling, reinforcement, active learning, direct experience, and guided practice, and repeated exposure for enhancing self-efficacy (Bartholomew et al., 2006). For improving self-efficacy and related skills (see risk model, Figure 2.4.), the TTM suggests self-liberation through personal testimony about making choices, relaxation strategies for counter-conditioning, self-re-evaluation of realizing behavioral change as an important part of identity. Also mobilizing social support by actively seeking and using support relations for the healthier behavior change assists assertiveness skills (Prochaska et al., 2002).

Combining these suggested methods, the production group arrived at a set of methods to use in the program: interpersonal discussion, consciousness raising, self-observation, self-evaluation, environmental re-evaluation, risk confrontation, modeling, problem solving and skill-training. These methods were translated into practical strategies, materials and exercises. Table 4.3. shows the main theory based methods and practical strategies. The determinants were taken from the proposed determinants in § 3.4.

Table 4.3. Theoretical methods and practical strategies

Determinants	Theoretical method	Practical strategy
Perceived social norms	Interpersonal discussion	Group discussion
	Social comparison	Feedback
		Sharing experiences
Perceived social support	Mobilizing supportive social network	Self-help group discussion
Awareness	Self-observation and self-evaluation	Personal testimony
	Dramatic relief	Disclosure
Risk perception	Risk confrontation	Personal testimony, information, fear arousal
Social norms	Environmental re-evaluation	Empathy training
		Watching Documentary
Sexual assertiveness	Modeling	Role playing and video
Skills	Problem solving skills	Observational vicarious learning
		Relaxation exercises
		Personal testimony

Peripheral and linguistic presentation (superficial or surface structure) approaches were used to adjust the selection of strategies and materials to the Dutch Caribbean culture of our priority population: Information about HIV/STI prevalence in the Netherlands was specifically targeted at Dutch Caribbean populations, materials were translated into local language, and Dutch Caribbean peer models were included in program materials. In our research on the community capacity, appropriate methods and strategies were questioned. In line with the absence of a reading culture in Dutch Caribbean communities, story telling ('taki tori') and audiovisual material were included in the program. Participants in our formative research stated that the health message and the methods and materials should be fascinating and confrontational, and presented with humor. The intervention should be captivating, because the women are easily distracted. Many women from our priority population as well as the peer health educators themselves pressed for the use of fear arousing visual materials.

The peer health educators initiated, facilitated, guided and supervised the group process and discussions. They were supplied with training on methods. The program did not follow a well-defined script; however certain topics were covered in each set of group meetings, such as creating a network and confidentiality in the group, risk perception, knowledge and awareness, personal testimonies and self-evaluation, risk reduction strategies, and safe sex negotiation. The health educators were equipped with a toolkit of strategies and exercises that could be employed in a flexible manner, when they thought them suitable to accomplish groups' objectives. This kit contained, among other things, (1) exercises to encourage women to select topics and themes of personal interest, formulate issues they encountered and set personal goals, (2) audiovisual materials to raise awareness, (3) materials to accomplish story telling, and story sharing, and small group discussion, and (4) role playing techniques to improve communication and negotiation skills and problem solving skills.

The core methods would be achieved as women discussed topics and issues that personally affect them in their sexual relationships in their daily lives. Because of the sensitive topics discussed in the intervention, it is implied that the women should feel safe, and that confidentiality should be guaranteed. The first meeting was designed to break the ice and to create an intimate, safe, comfortable, and confidential atmosphere. Participants engaged in introductions, understanding each

other's motivations and goals, and agreed on language used, boundaries and confidentiality. The participants got to know each other better by introducing themselves, by explaining the meaning of their name, explaining what jewelry they were wearing, disclosing zodiac signs and how they related to their personality or revealing the contents of their wallets. The interviews with participants in the formative research had proven these topics to be important for women from Afro-Surinamese and Dutch Antillean descent.

The participants agreed on a 'code' of conduct, in which the terms and conditions for confidentiality, respect, privacy were discussed and decided on. They set boundaries and consented to respect each others opinions and not cross the boundaries of others. The women also agreed on the topics and themes that were to be covered. In order to adjust the intervention to the particular needs of the women, exercises were developed to encourage women to select topics and themes of personal interest, formulate issues they encountered and set personal goals. Examples are 'secret ballot', and brainstorming sessions.

Some strategies were included to make the women more comfortable to speak about sexuality and to overcome taboos. The 'sex-dictionary game' is a brainstorming exercise through which participants reach consensus about the vocabulary they could use. The 'hidden-objects' is a strategy in which women grab (reproductive and sexually related) objects from a 'grab bag' and discuss what it is, what it can be used for, and what the beliefs associated with them. 'Word games' and 'question cards' are other examples of brainstorming exercises to elucidate ideas, beliefs and prior knowledge. Sexual risk reduction strategies were discussed using the 'Marlon-and-Jenny' game. This strategy amounted to the participants pasting post-its or stickers on a silhouette of a man and a woman, combining sexual activities and safe sex techniques.

The 'safe sex game', which is a blanks exercise in which the participants have to fill in the blanks and provide an explanation, is a strategy for women to become aware of the various risk reduction techniques, the pros and cons and appropriateness in different situations and with different partners.

The 'Knowledge quiz' and 'Big risk quiz' were adapted for our intervention population to make them aware of health risks and knowledge gaps. The quizzes could be conducted in different ways, e.g. as a test, a quiz between two groups, by throwing each other a ball, and by question cards. Also some role playing games were included to show how STI is transmitted in a sexual network.

One of the main strategies developed for this purpose was the 'personal testimony Uma Tori'. In this exercise women were encouraged to tell their past sexual relational histories, focusing on life events, memorable relationships, risky situations and/or risky partners, by drawing it on a timeline, writing or telling it to others (Rambaran, 2000b). Prochaska et al. (2002) have described personal testimony as an adequate strategy for dramatic relief to reach consciousness raising. The idea was that these personal testimonies would guide the goals and themes selected by the groups members, and would therefore serve as the 'storyline' of each group's intervention.

Other program developers have used similar methods, in which not the personal testimonies but testimonies of other women were used (Rambaran, 2000b). When women were reluctant to disclose their own 's'matori', the 'story of Esther' (see Figure 4.4.) - a Surinamese woman who eventually appeared to be HIV-infected by her steady partner - was used. Esther's life contained many life events that other women could relate to. Telling recognizable stories is a form of modeling.

Other modeling strategies were video's like 'Chickies, babies and wannabees'³ - a documentary about several Surinamese and Dutch Antillean teenage mothers - and 'E bida ta jen di koló' ('Life is full of color') - soap series about seropositive women in the Netherlands Antilles - and 'Aan niets overleden' ('Died from nothing')⁴ which deals with the stigma's attached to living with HIV/AIDS. Though the latter videos cover women living with HIV/AIDS and stigma, which were not topics covered in our matrix of proximal program objectives, they seemed valuable for our intervention because they covered aspects of negotiation. The health educators were given topics to lead the discussion after watching the videos.

Furthermore role-playing was used as a strategy to improve communication and negotiation skills and problem solving skills. The idea was that the participants could create their own role-play exercise from real events in their personal lives. However, to initiate role-playing some role-play scripts or vignettes were provided. In the 'excuse game', participants made up excuses, or acted out excuses for not having safe sex and they had to demonstrate dealing with these excuses. The 'carousel game', is a role-play in which participants have to take on different perspectives. 'One-minute role play', is a very short

3 Netherlands, 1999, 90 min. Production: Jan Heijs, Ruud Monster Scenario: Karin Junger, Camera: Peter Brugman, Brigit Hillenius, Claire Pijman, Adri Schrover Montage: Marina Bodbijn

4 Netherlands, 1995, 27 min. Production: NIGZ: Woerden. Scenerio: Andre Reeder

Figure 4.4. 'Story of Esther'

role-play in which each of the participants, practices short and strong argumentation skills. 'Ring-the-doorbell', is an exercise in which participants learn and demonstrate to ask each other difficult questions. Finally, the 'Ethel-and-Mike role-play' is a role-play on negotiation between partners and acting out gender roles; the participants have to take both the female and male perspective. In the role-play 'the onset', the participants practice initiating discussions.

As a compromise with group members who wanted to use fear tactics, the production group produced one booklet of full-color photographs of genitals with STI symptoms, the 'dirty pictures'. These were used in combination with strategies to enhance self-efficacy and assertiveness.

Finally, the participants could practice and demonstrate their condom use skills in a 'condom demonstration' by a relay race, blindfolded or in the 'love box' – one participant would unpack and roll down a condom on a dildo in a box, and the other participants would be able to see how this was performed by the open end of the box. The dildo was of a dark-brown color.

The strategies in the toolkit and the goals of the group activities are shown in Table 4.4. It has to be stressed that the strategies could be used and applied in a very flexible manner, to initiate discussion about an important topic, to release tension, or to create a friendly atmosphere. Take-home exercises could also be employed for women to review topics of the session, practice skills or to prepare for a next session.

All of the above described strategies should be accompanied by group discussions, and motivational reflection and interaction of how these topics and skills could be integrated into the women's personal lives. The discussion could be evoked by using propositions and statements. All the strategies have in common that the primary goal is enhancement of risk appraisal, consciousness raising and increasing awareness.

Table 4.4. Program description of Uma Tori

Goals of Group Activities	Determinants
Creating the Network	Perceived social support
Introducing oneself	Awareness
Disclosing motivation for group sessions	
Group Norms	Perceived social support
Creating confidentiality	
Setting own boundaries	
Respecting others boundaries	
Talking about Taboo Subjects	Awareness/Knowledge
Creating conformity on ways to speak about sex	Communication skills
Becoming aware of personal barriers in communicating about sexuality	
Talking about taboos	
Communication about sexually related objects	
Looking at types of condoms, contraceptives	
Establishing Personal Relevance	Awareness/Knowledge
Increasing sense of ownership	Self-Regulatory skills
Increasing awareness of knowledge gaps	
Setting personal goals	
Writing STI/HIV and safe sex strategy questions	
Disease Transmission Misconceptions	Knowledge
Listing transmission routes and misunderstandings about HIV/STI	Risk perception
Expressing Beliefs	Knowledge
Expressing opinions on condoms use, STI, safe sex	Communication skills
Sharing Awareness of Problems	Knowledge
Expressing ideas about women's issues regarding STI/HIV transmission, safe sex and vulnerability	Risk perception
Listing specific issues and possible solutions	
Pros and Cons	Risk perception
Expressing various perspectives	Attitude/Outcome expectation
Formulating arguments for and against	Communication skills
Understanding pro's and con's of the topics	Perceived social support
Relating pro's and con's to own decision	
Taking a perspective and argue pro's and con's	
Listing misconceptions	

Methods	Strategies/Activities
Mobilizing social network Creating social network	Introducing oneself by sharing personal details about one's: 'Name', 'Keychain', 'Zodiac sign', 'Wallet', 'Jewelry', 'Fairy tale' or 'Fable', 'Shoes'
Mobilizing social support	'Code' Setting rules about conduct, confidentiality and respect Creating network/group identity: Brainstorming, nominal group technique, secret ballot, clustering, ordering by importance
Re-attribution Consciousness raising Skill training	Skill training to overcome personal barriers and taboos 'Sex dictionary game' Brainstorming and reaching consensus about language used 'Hidden objects game' 'Grab bag' with reproductive and sexually related objects Speaking about sexual topics through objects
Setting Goals Self-observation Self-evaluation Self-instruction Self-judgment	Theme selection Formulating personal questions/topics to be answered 'Secret ballot', writing down themes or questions to be addressed or answered
Consciousness raising Belief selection Discussion	'Word game', ('Woordspel') ^a Brainstorm on topics and associated beliefs
Consciousness raising Self-observation	Discussion of prior knowledge and beliefs 'Question cards' a -Answering questions, discussing statements on condom use, STI, HIV test, risky situation
Social comparison Consciousness raising Environmental re-evaluation	Discussion Women and AIDS ^a Clippings on women and STI/HIV Information on women related issues
Consciousness raising Self-observation Social comparison Self-instruction Shifting perspectives	Discussion Decisional balance and decision-making Propositions/statements on Topics: HIV-test, risk, safe sex strategies Pre-formulated printed propositions/statements Formulating personal propositions and statements

Table 4.4. (continued)

Goals of Group Activities	Determinants
Becoming STI Knowledgeable	Knowledge
Listing the transmission routes	Risk perception
Describing proper condom use	
Describing treatment for STI	
Explaining misconceptions	
Describing symptoms of several STI	
Safe and Unsafe Sex	Knowledge
List ways of safe and unsafe sex techniques	Risk perception
Understand why certain sexual acts are safer than others	
Early Pregnancy	Awareness
Understand consequences of becoming teenage mother or infection with HIV (unprotected sex)	Negotiation
Become aware of personal choices	Communication skills
Showing empathy	
Relating stories to own behavior	
Stigma, living with HIV/AIDS	Awareness
Understand consequences of becoming teenage mother or infection with HIV (unprotected sex)	Negotiation
Become aware of personal choices	Communication skills
Showing empathy	
Relating stories to own behavior	
Risky past behavior, situations and partners	Risk-perception
Confronting others with risky behavior	Problem solving skills
Naming different personal safe sex strategies in past	Social support
Evaluating effectiveness of safe sex strategies	
Empathy and Attitude	Empathy
Seeing things from someone's position	Attitude
Verbalizing personal and other people's perspectives and attitudes	Listening skills
Formulating and revising one's attitudes	Communication skills
Raising awareness of culturally mediated behavior	
Personal Risk	Risk perception
Listing and explaining risky situations, risky partners (general and personal)	
Explaining n STI/HIV transmission	
Indicating chance of STI/HIV infection	

Methods	Strategies/Activities
Consciousness raising Information Fear arousal	'Big Risk quiz' ^a 'Quiz' a about STI, employed in different ways: Filling in questionnaire individually Contest: written/ oral as a group 'scratch cards' with questions about Chlamydia 'Dirty Pictures' - Visual information
Consciousness raising	Visualizing sexual acts 'Marlon and Jenny game' ^a Silhouettes of man and woman Post-Its notes Combining sexual activity and safe sex techniques
Modeling Social comparison Environmental evaluation Discussion	Video 'Chickies, babies and wannabees' (Documentary on teenage pregnancy)
Modeling Social comparison Environmental evaluation Discussion	'Bida ta jen di koló' (Dutch Antillean educational video on living with HIV, communication and negotiation and disclosure) 'Aan niets overleden' (Surinamese educational video about taboo of HIV/AIDS)
Consciousness raising Self-observation Self-evaluation Modeling Social comparison Problem solving	Personal risk appraisal Confrontation with own past behavior Identification of barriers for safe sex strategies 'Personal testimony Uma Tori!' ('Levenslijn Uma Tori!') ^b --Drawing and telling one's personal sexual history on lifeline Drawing and telling fictional sexual history Role model story – 'Story of Esther' ^b -True story of seropositive woman
Consciousness raising Social comparison Modeling	'Story telling' ^a Reading/ telling a story from a short novel or fable 'Fantasy' ^a
Consciousness raising Modeling	Role playing of transmission in sexual networks 'Handgame' ^a - Passing around safe or unsafe packages based on estimated risk AIDS-box a look into the box (infected) don't look (not) 'Sexual Network game' ^a 'AIDS-circle game' ('AIDS-Cirkelspel') ^a sexual networks using story cards

Table 4.4. (continued)

Goals of Group Activities	Determinants
Problem Solving	Social support
Demonstrating seeking advice in problem situation	Communication skills
Realizing different solutions for one problem	Problem solving and decision-making skills
Giving 3 solutions per problem situation	
Discussing and choosing most personal realistic solution	
Condom Use Intentions	Self-efficacy
Developing insight into barriers condom use	Communication skills
Naming excuses to not use condoms	Listening skills
Expressing willingness for personal condom use and convincing others	Discussion skills
Defending a viewpoint; making counterarguments	Negotiation skills
Formulating opinions on concurrent partnerships, safe sex strategies, and trust	
Describing opinions of important others	
Demonstrating negotiation and discussion skills	
Safe Sex Strategies	Argumentation
Describe benefits of safe sex	Negotiation skills
List 3 safe sex strategies	
List 3 unsafe sexual activities	
Demonstrate negotiating safe sex strategies	
Condom Use Skills	Condom use skills
Demonstrate correct condom use	
List 10 tips on correct condom use	
Name at least 4 location for buying condoms	
Demonstrate condom use blind folded	
Getting Help	Knowledge
List institutions and contact persons for different problems	Social support

Methods	Strategies/Activities
Skill building for problem solving Modeling	Role play 'Ring the doorbell' ^a Asking others difficult questions
Modeling Social comparison Consciousness raising Modeling Self-evaluation Social comparison	Role playing 'Carousel game' ^a - taking on different perspectives 'Ethel –Mike' 'The onset' 'One-minute-role play' ^a 'Excuse game' ^a
Self-observation Self-evaluation Negotiation skill building	'Safe Sex game' ^a Blanks exercise Giving argumentation, filling in blanks
Skill building Modeling	Condom demonstration 'Condom relay race' ^a 'Love-box' ^a blindfolded ^a
Environmental re-evaluation Information	Social map ^b

a Manual HIV-prevention methods 2003 (adjusted for this population) (Knapen, 2003)

b Strategies developed by Mitra Rambaran (adjusted for this population) (Rambaran, 2000a; 2000b)

4.5. Training VETC

In 1989, the National Committee on AIDS Control initiated a Migrant AIDS Prevention Project to ensure that migrants and ethnic minorities receive and have access to adequate information to protect themselves against HIV/AIDS and STI (Martijn et al., 2004). A peer education network – Voorlichting Eigen Taal Cultuur (VETC) – was realized to access hard to reach ethno-cultural groups. Paraprofessionals, peer health educators or lay health educators, were trained in educating migrants in their own language and positioned in their own culture (Voorlichting Eigen Taal Cultuur (VETC)), a peer education network. These health educators are indigenous to their community and function as a link between community members and the health service system. VETCs are familiar with the Dutch language, have completed intermediate vocational education and have affinity and contacts with their own ethnic community. As peer health educators from ethnic minority populations they present STI/HIV prevention in the groups' own language. These activities aim to increase knowledge and risk awareness in one-session interventions. Activities also include handing out condoms in settings like cultural festivals, community centers, coffee houses and mosques (NIGZ, 1998; Martijn et al., 2004). Though the Municipal Public Health Services have employed these peer educators for a variety of health services and health promotion activities, little direct empirical evidence is available on the effect of these programs on STI/HIV behavior change (see also Voorham & van Haastrecht, 1996, and Kocken & Voorham, 2001).

A training for the VETC was developed by the NIGZ in close collaboration with the researchers (Hoek & Knapen, 2003). The IM protocol was used in developing the training, resulting in a matrix of performance objectives for implementation and a training program based on proximal training objectives (Table 4.5.1.).

As Table 4.5.1. indicates, the peer health educators had performance objectives beyond their more typical didactic educational activities. These included facilitating in-depth group discussion and modeling.

Uma Tori requires flexibility; the educator needs to listen to the group members and adjust to their topics of interest, issues, and emotions. They must be able to initiate discussion and guide the women to attaining the goals of the intervention with the least possible interference.

Since implementing the Uma Tori would require a transfer from traditional didactical approaches aimed at knowledge transfer

to participatory and problem-based pedagogical approaches (Barrows, 1986) aimed at initiating and facilitating discussions, value clarification, and skill building regarding self-observation, self-evaluation and self-re-evaluation, all peer educators had to attend a 5-day training course using a format similar to the Uma Tori program. The training program focused on group dynamics, discussion and communication skills, flexibility and using the toolkit and evaluation techniques (see Table 4.5.2.). The form of the training was much like Uma Tori itself. The educators went through the same procedures as the participants of Uma Tori, but besides becoming aware of their own sexuality they focused on becoming aware of themselves as educators. They practiced the strategies as participants, role-playing as hostesses, educators and participating women. The training is been described in the 'Trainers Manual for Health Educators' (Hoek & Knapen, 2003). To motivate women to attend the training seriously, the training was embedded in the national peer education program and presented as in-service competence building.

Table 4.5.1. Matrix for implementation: Performances and change ojectives for Health educators

Performance Objectives for Program Implementers	Attitude/Outcome Expectations	Self-Efficacy
1. Recruit and supervise group hostesses	Describe how interactive health education hosted by a member of the priority population will be effective in helping women adopt safer sex practices	Express confidence in being able to approach and talk to potential hostesses
2. Become an interactive group member in each Uma Tori group for which they are the designated 'leader'	Discuss how their participation will be an effective roll model for the women to participate in the group	Express confidence in being able to participate in the group
3. Initiate and facilitate discussion in the groups	Expect that the more the women participate in the group the more learning they will experience	Express confidence in providing an intervention without a fixed program
4. Adjust group topics as indicated by the interests of the women	Describe how making the activities salient to the women will encourage attendance at all sessions	Express confidence in providing an intervention without a rigidly fixed program

Skills	Knowledge
Demonstrate communication skills, goal setting, and facilitating interactive groups dynamics	Describe characteristics of effective hostesses
Demonstrate communication skills, goal setting, and facilitating interactive groups dynamics	Describe characteristics of effective group facilitators
Demonstrate adequate and flexible adaptation of appropriate strategies and materials during the intervention and in different socio-demographic groups	Describe each program strategy and material and how it can be used
Demonstrate adequate and flexible adaptation of appropriate strategies and materials during the intervention and in different socio-demographic groups	
Demonstrate ability to set personal learning goals and self-evaluate health education	
Demonstrate ability to reflect on own sexual behavior	
Demonstrate problem-solving skills	

Table 4.5.2. Description of VETC Training

Training Session Themes	Goal	Methods/strategies
Session 1 Understanding Uma Tori		
Making acquaintance	Creating security and safety	Exercise: 'Explain meaning of your first name' Discussion about other strategies
Setting and agreeing on boundaries	Creating security and safety Personal norms and values	Exercise: 'the Code' Nominal group technique, Brainstorm, discussion
Introduction project and training	Understanding goals, design, intentions of Uma Tori	Presentation, questions and answers
Sexual vocabulary	Personal norms and values	Exercise: 'Sexual vocabulary game' Brainstorm, discussion
Sexual biography	Self-observation and evaluation of sexuality	Exercise: 'Uma Tori Personal testimony' Individual paper and pencil exercise, drawing answering questions, Presenting example biography ('Story of Esther') Discussion
Evaluation and learning goals	Goal-setting Self-observation on education skills	Short questionnaire, fill in exercise, discussion
Session 2 Shift from personal situation to educating others		
Risk perception	Personal risk perception	Exercise: 'Big Risk quiz' Paper and pencil exercise presentation
Sexual biography	Evaluation of personal risk	Exercise: 'Uma Tori personal testimony' Discussion

Change objectives		
Knowledge	Attitude	Skills / Self-efficacy
	Specifying personal goals and motivation	Produce a safe and secure atmosphere
Describe different strategies to guarantee security and safety in groups	Specify personal boundaries in discussing own sexuality Identify personal norms and values Show respect for other people's boundaries in speaking about sexuality	Demonstrate ability to create and use strategies to generate confidentiality
Describe Tupperware method and goals of intervention		
Name specific words that will be used in intervention		Express confidence in speaking about sexuality Demonstrate ability to use strategies
	Describe own sexual behavior/issues	Demonstrate ability to use strategies Elucidate the influence of others on personal sexuality
Formulate personal learning goals for training Relate ways to assist goal setting	Illustrate personal prejudices about sexuality and STI/HIV	Promote goal setting in a confidential atmosphere
Name standard misunderstandings about safe sex Name STI/HIV transmission routes		Explain most occurring STI (transmission, symptoms, treatment) to somebody else
Describe personal STI risk Formulate pro's and con's of safe sex Endorse personal benefits of safe sex		Demonstrate ability to use strategies

Table 4.5.2. (continued)

Training Session Themes	Goal	Methods/strategies
Priority group assessment	Analysis of possible priority groups	Discussion Information
Dealing with relational power issues	Gender, relationships, sexuality and power	Exercise: 'Fantasy' ('Geleide Fantasie') 'Story of Esther' Discussion imagination
Evaluation and learning goals	Goal-setting Self-observation on education skills	Short questionnaire, fill in exercise, discussion
Session 3 Practice material, strategies from toolkit		
Retrospection, evaluation, learning goals		
STI		Exercise: 'Dirty pictures'
Negotiation	Safe sex negotiation	Exercises: 'Carousel game, 'Ethel and Mike' and 'Role-playing':
Difficult questions/ referral	Empathy	Taking inventory Social map
Evaluation and learning goals	Goal-setting Self-observation on education skills	Short questionnaire, fill in exercise, discussion
Session 4 Improvising and anticipation		
Difficult and unexpected questions	Anticipating on issues and problems of participants	Inventory, discussion, presentation
Starting group session	Interaction between educator and participant	Role-play
Prerequisites group education		Inventory and brainstorm

Change objectives		
Knowledge	Attitude	Skills / Self-efficacy
Label different sexual subcultures within Dutch Caribbean population Describe diversity in priority groups	Express opinion on own sexual relationships in comparison with others	Demonstrate approaches to instigate discussion about sexuality for women of different age groups Demonstrate ability to use strategies
Formulate personal learning goals for training Relate ways to assist goal setting	Illustrate personal prejudices about sexuality and STI/HIV	Promote goal setting in a confidential atmosphere
Describe the role of health educator in Uma Tori		Exemplify personal preferences for materials/strategies Show ways to use 'dirty pictures' in program
Exemplify different negotiation strategies		List safe sex negotiation skills Demonstrate ability to use strategies
Name organizations for referral and situations for referral	Describe different responses to difficult questions	
Formulate personal learning goals for training Relate ways to assist goal setting	Illustrate personal prejudices about sexuality and STI/HIV Ask for support and assistance in difficult situations	Promote goal setting in a confidential atmosphere
List possible issues of participants		Demonstrate improvisation and anticipation Demonstrate skills to motivate group process
List possible prerequisites		

Table 4.5.2. (continued)

Training Session Themes	Goal	Methods/strategies
Global programming	Making a global framework for 5-sessions	Discussion, presentation
Using ‘Uma Tori’ personal testimony	Group processes	Role-play
Recruiting and motivating participants		Exercise: ‘I will attend program, because...’
Evaluation and learning goals	Goal-setting Self-observation on education skills	Short questionnaire, Fill in exercise, Discussion

Session 5 Interactive health education

Global program	Prerequisites group education	Presentation
Theory	Problem solving, strategies	Role-play
Recruiting and motivating participants	Communication model	Exercise: ‘I will attend program, because...’ brainstorm and discussion
Evaluation and learning goals	Goal-setting Self-observation on education skills	Short questionnaire, Fill in exercise, Discussion

Change objectives		
Knowledge	Attitude	Skills / Self-efficacy
		Demonstrate usage of toolkit Present a 5-session program
		Demonstrate usage of Uma Tori and anticipation, improvisation
		Demonstrate recruitment techniques
Formulate personal learning goals for training Relate ways to assist goal setting	Illustrate personal prejudices about sexuality and STI/HIV	Promote goal setting in a confidential atmosphere
		Show confidence in creating flexible program
Explain self-regulatory mechanisms		
List several motivations		Demonstrate motivating others
List personal weaknesses and strengths		

IM6: Planning Evaluation

The last Intervention Mapping (IM) step refers to planning a process and effect evaluation. The first task in step 6 is to develop an evaluation model in which health promoters specify evaluation levels, outcome indicators and measurement, and evaluation planning. The content of the evaluation model is based upon the previous IM steps. On the basis of the first two IM steps, effect evaluation questions can be specified. This enables health promoters to measure changes in learning objectives, health promoting behaviors and sub-behaviors, and even to re-assess the health problem. On the basis of the results of IM step 3 and IM step 5, process evaluation questions can be developed. This enables health promoters to evaluate the reach of the program and the quality of its implementation. Was the program disseminated, was it adopted and executed completely and correctly? Which strategies worked, and which failed? And what were the reasons for failure?

5.1. Methods

Uma Tori was implemented as a pilot by the Municipal Public Health Services between March 2004 and February 2005 in Amsterdam, Rotterdam and The Hague. The effectiveness and the process of implementation were evaluated by quantitative and qualitative evaluation.

5.1.1. Effect evaluation

The intervention effects on correlates of sexual risk reduction behavior in a pre-post test-only design were evaluated using a self-report questionnaire. We did not use a randomized control trial (RCT) because of practical, pragmatic, and ethical reasons (e.g. Gomez et al., 1999; Martijn et al., 2004). The initial effect evaluation design was an RCT. Unfortunately it was impossible to generate a control group. The extremely low response rate (5%) on the first questionnaire of the control group, forced us to revise the design to a pre-intervention and post-intervention questionnaire.

The outcome evaluation questions were taken from the planning matrix. Knowledge about STI/HIV, risk susceptibility and severity, attitudes toward safe sex practices, response efficacy, perceived social or subjective norms, perceived social support, sexual assertiveness, intention to negotiate and practice safe sex and sexual communication with a partner, were

all assessed using a self-report questionnaire both before and after the intervention. The questionnaire was developed using scales validated by previously conducted evaluation studies among ethnic minority women in the United States (Rosenthal, Moore et al., 1991; Witte et al., 1996; Beadnell, Baker et al., 1997; Robinson, Bockting et al., 1997; Bowleg et al., 2000; Castañeda, 2000; Bachanas, Morris et al., 2002) and pre-tested among the priority population (N = 10) (see appendix 4 for a detailed description of the questionnaire, measurements and analyses and Eiling, 2006).

The baseline questionnaire was administered to the participating women at the beginning of the first session, whereas the post-test was handed out at the end of the last session and returned to the hostess within three months after the intervention. The post-test consisted of the same questions as the pre-test. A native speaker translated the questionnaire from Dutch into Papiamentu for the Dutch Antillean respondents. The questionnaires were filled in individually. Women were rewarded 20€ for completing both self-administered questionnaires. Ethical clearance was granted by the Ethical Committee Psychology (ECP), Maastricht University. All participants signed an informed consent form prior to partaking in the intervention.

5.1.2. Process evaluation

The process evaluation addressed (1) strategies to recruit, involve and maintain participants in the intervention, (2) intervention reach, and (3) fidelity and completeness of implementation (Bartholomew et al., 2006). Questions asked were: was the program implemented as planned? What happened in the different groups? Could the educators cope with their new roles? Under what conditions can the program be continued?

After each session, the health educators and hostesses completed a logbook containing questions about (1) group characteristics, e.g. age, ethnic background, language, length of stay in the Netherlands, (2) attendance, (3) resources, the location, costs and duration of the session, (4) goals and themes of the sessions, (5) take-home assignments, (6) methods, strategies, exercises and materials employed, (7) appreciation of strategies and materials, and (8) evaluation of each session and evaluation of total program.

After the intervention period, interviews were conducted with each health educator, in which the logbooks were used as topic list, as well as three focus group discussions (FGD) with participants and hostesses using nominal group techniques (e.g. Duncan, Miller et al., 2002). FGDs primarily addressed the

importance of the themes covered, the feasibility of the methods and strategies employed. In addition, the post-test questionnaire contained open-ended questions regarding the impact of the intervention on the participants' personal lives, and the appreciation of materials and strategies. The contents of the logbooks, answers to the open-end questions, and transcriptions of the interviews and FGDs were analyzed using NVivo 7.0 (QSRInternational, 2007) (see also appendix 4 and van Gemert, 2006).

5.2. Implementation of Uma Tori

The program was realized in 41 groups in 2004 - 2005; 456 women signed up for the program, 386 women participated in the program and 360 (93%) women filled in the baseline questionnaire. 107 completed only the baseline questionnaire, 42 only completed the post-test questionnaire; 253 (66%) completed pre- and post-test. Large differences in implementation could be detected between the program locations.

In Rotterdam, the program was carried out by three Surinamese and two Dutch Antillean health educators in 27 groups. 322 women signed up for the program, of whom 273 participated in the program and 100% filled in the baseline questionnaire. 86 completed only the baseline questionnaire, 32 only completed the post-test questionnaire; 185 (68%) completed pre- and post-test⁵. All the logbooks were completed for all of the groups.

In Amsterdam, one Dutch Antillean and two Surinamese health educators implemented the program in 7 groups (the Dutch Antillean VETC had carried out 5 groups and the Surinamese educators each only one group); 86 women signed up for the program, of whom 71 participated in the program and 47 (66%) filled in the baseline questionnaire. Seven only completed the post-test questionnaire; 40 (56%) completed pre- and post-test. The logs were only partly filled in.

In The Hague, one Dutch Antillean health educator took charge of six groups; 48 women signed up, of which 42 participated in the program and 100% filled in the baseline questionnaire. Four women only filled in baseline, 38 (90%) completed pre- and post-test. Unfortunately, the logbooks were incompletely filled in for these three groups.

⁵ The evaluation of Uma Tori in Rotterdam is described in appendix 4 (Bertens, Eiling et al., 2008 accepted)

Table 5.3. Effects on outcome measures

Outcome measures (range)	Mean (sd) pre-test	Mean (sd) post-test	F	Exact p	Effect Size (r)
Knowledge about STI/HIV (0-9)	6.1 (2.5)	7.7 (1.5)	74.21	.000	.53
Severity of STI/HIV (2-10)	8.6 (1.3)	9.0 (1.3)	11.72	.001	.24
Susceptibility regarding lifestyle (1-5)	3.7 (1.1)	3.5 (1.3)	5.62	.010	.17
Susceptibility lifetime (1-5)	3.0 (1.6)	2.9 (1.2)	1.07	.302	.08
Response efficacy (4-20)	15.4 (2.8)	16.4 (2.7)	16.57	.000	.28
Attitude condom use with a new partner (2-10)	7.7 (2.5)	8.8 (1.6)	34.18	.000	.39
Attitude condom use with a steady partner (2-10)	5.4 (2.7)	6.6 (2.6)	36.33	.000	.40
Attitude monogamy (2-10)	7.7 (2.7)	8.7 (2.1)	19.28	.000	.30
Attitude negotiated safety (2-10)	7.2 (3.0)	8.1 (2.1)	16.68	.000	.28
Self efficacy/sexual assertiveness (14-70)	57.0 (13.3)	64.2 (7.3)	47.17	.000	.44
Subjective norm (3-15)	8.8 (4.4)	10.6 (3.6)	33.68	.000	.38
Social support (4-20)	14.7 (3.5)	14.8 (3.5)	.000	.992	.000
Intention to practice safe sex (5-25)	20.5 (5.8)	23.2 (2.9)	29.83	.000	.36
Sexual communication (4-12)	6.7 (2.4)	7.2 (2.4)	5.49	.020	.17

(1) Tests of within subjects effects N = 202 (Intention to treat)

* One way repeated-measures MANOVA, Bonferroni adjustment for multiple comparisons, age, educational level and partner as in between ss-factors

Sample

Of the 253 women who filled in both questionnaires, 80.9% attended all meetings. Most of the sample in our evaluation came from Rotterdam (73%), 15% of our sample attended the sessions in The Hague and only 12% in Amsterdam. About half (51%) of the participants were of Surinamese ethnicity, 47% were of Dutch Antillean background and four women had a different background. The majority (68%) of the participating women was first generation migrant. Average duration of stay in the Netherlands of first generation migrants was 14.2 years (SD = 10.4), ranging from 1 to 40 years. The average age of the participants was 33.75 years (SD = 12.7), ranging between 15 and 72 years of age. Educational levels varied from primary education and basic vocational training (58%) to advanced vocational education, university and higher education (42%). At baseline, 91 women were employed (37%) and 26% of the participants were unemployed or incapacitated. The majority of the participants were religious (78%) (i.e. members of the Catholic, Pentecostal, or evangelical churches). More than half of this sample were married or living-apart-together (N = 131), 47% of the participants were single. At time of baseline measure, 127 (55%) claimed to be in a steady relationship. Only 11% of the partners had a Dutch background. Sixty percent of the women had children; of these 67% were with their current steady partner. Ten percent (21) had not yet engaged in sexual intercourse; 6% had had more than 10 partners. The average number of lifetime sexual partners was four. Average number of sexual partners in the 6 months preceding the intervention was 1.2 (SD = 1.0), ranging from 0 to seven sexual partners. 11.7% of the women had been diagnosed with an STI, mostly chlamydia. More than one third (33.6%) of the women had been tested for HIV/AIDS. Two women were HIV-positive and six did not know their HIV-status.

5.3. Results effect evaluation

Data were analyzed with SPSS 13.0. To analyze intervention effects we conducted intention-to-treat analyses, if the 2/3 or more of the items was filled in, employing multivariate analysis of variance with repeated measures (pre-test-post test) and Bonferroni correction for multiple comparisons, with educational level (high-low), relationship status (single-steady partner), and age-group (<33> years of age) as between-subjects factors. Of the 253, only 202 respondents could be included in the multivariate analyses.

5.3.1. Effects on outcome measures

The results of the multivariate analysis revealed statistically

significant changes in dependent variables between pre-test and post-test, $F(14, 181) = 8.50, p = .000$.

Within-subjects contrast tests revealed that the participants scored significantly higher at post-test measurement (compared to the baseline measurements) on all outcome variables except for perceived susceptibility and social support (see Table 5.3.). After the intervention, women on average scored higher on knowledge, perceived severity, attitudes towards of risk-reducing strategies, perceived subjective norms, sexual assertiveness and intentions to practice safer sex and sexual communications. Effect size correlations revealed small to medium effect sizes, except for knowledge (large effect size).

5.3.2. Subgroup outcome measures

The analyses further showed that intervention effects were dependent on relationship status ($F(14, 181) = 2.62, p = .002$) educational level ($F(14, 181) = 2.43, p = .004$), but not on age group ($F(14, 181) = 1.64, p = .073$).

Inspection of univariate effects revealed that changes between pre- and post-test were most profound among women with a steady partner and women with a low educational level. It seemed that the Surinamese participants benefited more from the intervention than did the Dutch Antillean participants ($F(14, 195) = 3.40, p = .000$). However, all of these groups scored significantly lower on the baseline measurement, and the scores on the post-test more or less converged.

We found dose-response effects: the women who attended all sessions scored more positively on items regarding attitudes towards monogamy and negotiated safety and perceived subjective norm.

There was an apparent difference between the locations; the scores of the participants in Rotterdam and The Hague increased more than in Amsterdam. The number of participants in Amsterdam was too small to conduct statistical analyses.

5.3.3. Sex reduction strategies

The 'favorite safe sex strategy' changed between the pre- and post-test. At pre-test 67 (30%) of the participants stated condom use as their favorite strategy at post-test 109 (48%) of the participants said so. STI-testing decreased in popularity from 47 (21%) at pre- to 33 (15%) at post-test, as did abstinence, at pre-test 33 (15%) and 10 (4%) at post-test.

The participants also stated to have changed the risk reduction practice they used between pre- and post-test. At pre-test 49

(20%) of the participants claimed to never use a risk reduction strategy, at post-test this was 28 (12%). More participants claimed to practice safe sex with their steady partner at post-test: 63 (30%) at pre- and 86 (37%) at post-test. More participants indicated they negotiated safe sex practices: 107 (51%) at pre- and 138 (59%) at post-test. Also more participants were certain of the infidelity of their partner at post-test.

5.3.4. Condom use

On the baseline measurement, reported condom use for the last three sexual partners was very low. Only 20%-22% of women who answered this question ($N = 127$) reported always having used condoms, 42% to 54% never used condoms. Rates of condom use did not differ for steady or casual partners. Reported condom use in current relationships was very low as well. Of the women who were in a steady relationship at baseline ($N = 158$), only 15% said they always used condoms. At follow-up, condom use seemed to have increased within steady (sexual) relationships ($N = 113$): 47% always used condoms. Of the women who engaged in a new relationship during the project ($N = 52$), 51% claimed to have used condoms consistently.

5.3.5. History and Selective dropout

To control for possible history bias we compared intervention effects among the first intervention wave (spring groups) and the later intervention wave (fall groups). These analyses revealed that the intervention effects in the spring groups were more profound than the effects in the fall groups ($F(14, 199) = 2.11$, $p = .013$).

To explore possible biases due to selective drop out, we compared women who completed both questionnaires with women who only completed the pre-test. Women, who did not fill in follow-up questionnaires at post-test, are seen as dropouts. These participants did not differ significantly on demographic variables or baseline scores from the participants who completed pre- and post-test measurements. Interviews showed that reasons for non-attendance were illness or other incidents, not diminished motivation or disinterest.

5.4. Findings process evaluation⁶

5.4.1. Recruitment, preparation time, participation and resources

As stated before, there were striking differences between Rotterdam, Amsterdam and The Hague implementation. These

⁶ For more process evaluation information see van Gemert (2006)

differences also obtained in relation to Uma Tori. As described in the sample size, Rotterdam and The Hague fulfilled the requirements of 6 groups per health educator. The recruitment by the Surinamese health educators in Amsterdam was incomplete. Each of them was able to recruit only one group of women. The group size averaged 10 women, and varied between 6 and 14 women.

Inspection of the logbooks revealed that the home-party recruitment strategy did work out well, at least in Rotterdam and The Hague. Hostesses managed to recruit women from different social networks, and a broad variety of women groups did participate in the intervention. Most groups consisted of friends, acquaintances and neighbors, but six groups were family groups, one was a religious community, and five groups, all Dutch Antillean, were existing social and self-help organizations. Six groups were made up of young women (aged 16-25), but all the other groups consisted of women varying in age between 16 and 65 years of age. In Amsterdam one group was created from girls attending the same school, the other groups varied in age. The average age was 44 years old. All of the Dutch Antillean groups spoke Papiamentu and all their members were Dutch Antillean. A couple of Surinamese groups, who spoke Dutch, also had some members from other ethnic groups: Cape Verdian and Moroccan. The groups consisted of either 'new migrants', with between 1-5 years of residence in the Netherlands or 'old migrants', either second generation migrants or migrants having resided in the Netherlands for over 5 years.

The intervention consisted of five sessions, and took place in the homes of the hostesses. Duration of the sessions varied between the sites, in Rotterdam the sessions lasted between 2 and 7 hours, averaging 3.5 hours, in The Hague 2 to 3 hours, average 2.5 hours, and in Amsterdam 1 to 3 hours, average 2 hours. The Surinamese women all spoke Dutch; the Dutch Antillean sessions were carried out in Papiamentu or in Dutch.

Interviews with both health educators and hostesses revealed that the time needed to prepare and to implement intervention sessions exceeded initial planning. The health educators indicated that they had spent much more preparation time because of unexpected questions and topics that the participants brought up, especially in the first groups. After getting accustomed to the intervention methods, less preparation time was needed. The hostesses indicated they had spent more time than expected in preparing food and drinks in making reminder phone calls to enhance attendance. Interviews further revealed that the Surinamese hostesses invested a lot in making the inter-

vention sessions a real social event: most meetings took place in the evenings during which participants shared dinner. The logbooks showed that health educators and hostesses in Rotterdam and The Hague managed to motivate women to attend the sessions: 83% of the women participated in all five intervention sessions. In Amsterdam the dropout was substantially higher.

These recruitment and implementation issues were addressed in interviews with the people involved. The impression was gained that the 'culture' of the Municipal Public Health Services Rotterdam was more supportive and encouraging, supplying the coordinator and the health educators with more resources, time and supplies. The Rotterdam health educators seemed more inspired and motivated. There was also a marked difference in recruitment strategies between the cities: in Rotterdam hostesses and participants were sought among social networks and existing self-help groups and they were recruited using intrinsic motivational persuasion. For instance, they were told that they would be able to learn more about sexuality and be able to share relational issues with like-minded people. In Amsterdam it seemed more extrinsic motivational strategies were used, i.e. the participants were promised financial gratification for partaking. Even though all participants received the same gratification in all the sites – the hostesses/health educators received 100€ for the logistics and organization of the sessions and the participants a 20€ voucher for completing the questionnaires. The Amsterdam participants complained and disagreed, perhaps because they were less intrinsically motivated.

5.4.2. General appreciation of the program and the materials

The FGDs, which were all conducted in Rotterdam, the interviews and the open-ended questions in the post-test survey indicated that health educators, hostesses and participants were very satisfied with the intervention sessions. The participants and hostesses indicated that the health educators were committed and knowledgeable about the topics covered. All women involved indicated that the groups functioned well and there was a lot of interaction during the intervention sessions. Most participants claimed that they would have liked more sessions and more time to discuss the topics.

The participants indicated to have enjoyed the interactive sessions and the opportunity to choose their own personal themes. The small group size and familiar surroundings increased the trust and intimacy and many women appreciated the social support. They perceived similarities between their

stories and learned from each other. Many of the women claimed that they had become more aware of not only their risks but also of their power position within their relationships. The intervention strategies that they liked best were generally the discussion about topics of interest to them, the videos and the free condoms.

The production group had included a fear arousing strategy, 'the dirty pictures' as a compromise. The planning team was hesitant to use such a strategy. However, health educators had urged the use of confrontational methods. This strategy is still controversial, we feel. Many participants found the pictures too confrontational, "too scary", and some were "disgusted". The pictures made them "sick to the stomach". The health educators acknowledged that perhaps it was "too confrontational, yet functional".

Another strategy surrounded by controversy, was the personal testimony 'Uma Tori'. This, the health educators found it too confrontational. It did evoke a lot of emotions among the participants. However, they appreciated the chance to tell their story and share it with the others.

The role-playing was evaluated positively, especially the negotiation part and taking the perspective of a male partner. Through the latter the participants became aware of how they evoked and were trapped in certain patterns of communication with their partners. At the same time they also had "a good laugh". Another strategy which guaranteed laughter was the condom demonstration. Health educators employed this strategy for relief of tension and to "spice things up".

5.4.3. Completeness

The logbooks indicated that the intervention sessions covered all planned topics: relationship status, sexuality, negotiation with partners, risks of unsafe sex, transmission and symptoms of STI, teenage and unwanted pregnancies and safe sex strategies. Although contraceptive use, sexual satisfaction, knowing one's body and feeling comfortable with one's body were not explicitly included in the intervention objectives, these topics were addressed in most of the groups. Some participants missed some other topics relating to their sexuality like cervical cancer (screening), menopause and hysterectomy. The logbooks further indicated that most, if not all, intervention strategies included in the toolkit had been employed. This suggests that, although strategy selection was supposed to be dependent on the goals set by individual groups, most health educators relied on set itineraries for the group sessions.

Although this was not a core strategy, most groups did spend a lot of time on implementing strategies addressing knowledge transfer. This observation was echoed by the interviews with the

health educators, who indicated that participants generally lacked knowledge about sexuality, STI and condom use. In fact most groups did spend a lot of time on condom use skills and sexual negotiation role playing. Logbooks also indicated that the core strategy of the intervention that was supposed to be used throughout all of the sessions was often only used in one session. Interviews with health educators suggested that this strategy – in which women were to share their individual history regarding sexuality and sexual relations – was too confrontational for participants evoking a lot of emotion. Interviews further suggested that health educators did not take the time to fully address the complete stories because they felt urged to complete other exercises. The logbooks further made clear that the number of strategies employed increased per session, suggesting that health educators felt an urge to implement strategies they had not been able to employ in earlier sessions.

5.4.4. Fidelity

In general, the health educators expressed enthusiasm about the program because of its practical and interactive approaches. They indicated that many aspects were new to them, and that the program was informative and instructive and therefore not “boring”. The methods, strategies and materials were considered appropriate for the priority population. Health educators claimed that they valued the flexibility of the program, enabling them to choose the strategies they thought appropriate and in accordance the needs of the groups. However, some of the health educators said they had encountered unexpected situations that they found difficult to deal with. For example, some strategies, like ‘personal testimony’ and ‘story telling’, evoked very emotional personal stories.

Although all groups had completed the ‘lifeline’ strategy to some extent, this core intervention strategy was not used consistently throughout the program. Many educators stated they had had difficulty in asking women to write down and share their own personal sexual histories. Nevertheless, the interviews with participants revealed that many had had the opportunity in other exercises and discussions to tell part of their stories sometimes in relation to the stories of others. Considering the PBL pedagogic approach, the health educators indicated that on-the-job training and supervision was missing, especially about dealing with emotional, and sometimes shocking, experiences relayed by the participants. Most, if not all, educators did demonstrate an open mind and tolerance to the stories of the women and took all questions and topics brought forward by the groups seriously. Many of them found the freedom they had stimulating and exciting.

5.5. Conclusion and discussion

5.5.1. Viva Uma Tori!

The general aims of the program described were to raise awareness of the risks of STI/HIV infection and make participants conscious of the gender roles in their personal sexual relationships, to increase awareness of available risk reduction strategies (e.g. condom use and/or negotiated safety) with due consideration of the context in which the sexual behavior takes place, to improve their negotiation and communication skills, and to finally make conscious decisions regarding their own sexual health.

The evaluation revealed that Uma Tori was received with enthusiasm by all health educators and participants. Participating women scored significantly higher on all outcome measurements except perceived social support and perceived susceptibility. After the program women's knowledge about STI, transmission routes, and risk reduction strategies and their risk awareness had increased. Their attitudes towards condom use with a new and steady partner, towards monogamy and negotiated safety had become more positive. The extent to which women thought that practicing safe sex would be realistic in their personal situation, also increased. After the Uma Tori project, women showed increased levels of sexual assertiveness. The perceived social norm towards safe sex became more positive. Post-test scores revealed a higher intention to negotiate and practice safe sex. Participants also showed improved sexual communication after the project. Our findings also showed a dose-response effect of the intervention. Women who attended all Uma Tori sessions showed a more favorable change in attitudes towards negotiated safety and subjective norms compared to participants who missed one or more meetings and consequently missed more intervention components. These results are comparable to those found in other small samples (Kalichman et al., 1996; Gomez et al., 1999).

The process evaluation also supports these positive results and changes in women. As some of the participants said after the intervention: "This is a good introduction course. We should continue with a follow-up". When asked, the participants claimed that they "learned many new things that they hadn't heard before" and that they were "more aware of the health risks of their behavior".

5.5.2. Were the goals and program objectives accomplished?

The focus of the program was on improving women's capacity to control their own (sexual) health decision-making and to commence and maintain healthy relationships. In choosing our

methods and strategies for the program design we therefore focused primarily on consciousness raising through: (1) personal risk analysis, (2) analysis of their position within the family and gain insight into the relational power situation, and (3) analysis of possible risk reduction strategies (see § 4.2.). Evaluation seemed to corroborate that these performance objectives had been adequately achieved. Women had become aware of possible safe sex strategies, had practiced condom use and negotiation skills.

5.5.3. Reflections on the outcome measures

Of all the effect sizes, only the effect size as regards to knowledge increase was large. The process evaluation also revealed that a lot of time was spent on knowledge increasing strategies. The health educators stated that the participants lacked basic knowledge about sexuality, STI/HIV, and protective measures. We had not anticipated this low level of knowledge. In our formative research study the respondents all had adequate knowledge about safe sex strategies and STI transmission. Perhaps one of the reasons for enrolment in Uma Tori was that the participants wanted to become more knowledgeable about sexuality and related topics. Other studies, too, have shown that the level of knowledge has an influence on the level of enrolment and completion of a program. Participants with high knowledge levels were less likely to remain in an intervention program than those who were less knowledgeable. In addition, participants showing medium levels of motivation were more likely to complete an intervention program than low- or high-knowledge participants (Noguchi, Albarracín et al., 2007).

Remarkably, the program seemed not to have changed women's perceptions of social support; by making use of social networks we hypothesized perceived social support would increase. It may be that the participants were already experiencing high levels of social support prior to the intervention, although pre-test mean scores do not suggest a ceiling effect. It may also be that our measurement of social support, derived from the MOS-SSS measure for emotional/informational support (Sherbourne & Stewart, 1991), was too general and should have been framed in terms of sexuality and safer sex.

The mean scores on perceived susceptibility declined between pre- and post-test. Again one could argue that these items were formulated too broadly, i.e. susceptibility for STI/HIV-infection. Another explanation might be that the participants did practice safer sex after the intervention and therefore they are less susceptible to infection.

- 5.5.4. Sample and recruitment: Tupperware-party as recruitment strategy? Our rather small sample may raise a question about the representativeness. Although our sample seemed quite representative regarding various socio-demographic variables, it had better educated and more unemployed rate than the general female Dutch Caribbean population.

The aim of this project was to reach the general population of Afro-Caribbean women, therefore no special actions were undertaken to reach the high-risk, and more difficult to reach groups. Additionally, because the recruitment strategy relied on the networks of health educators and hostesses we did not include high-risk and hard-to-reach subgroups, such as drug-using young girls. It is questionable if our social network strategy is useful in reaching these girls; outreach seems to be more effective (Pulley, McAlister et al., 1996; Brown-Peterside, Rivera et al., 2001; Rowden, Dorsey et al., 2001; Tross, 2001).

Attendance rate in the intervention was quite high. The recruitment of participants using the 'Tupperware-party' model turned out to be adequate, at least in Rotterdam. Because our sample was not an at-risk group and the scores on the baseline measures were quite high, it might be the case that instead of changing behavior, we only succeeded in confirming or consolidating existing behavior.

- 5.5.5. Training the VETC: flexibility and interactive health promotion Surprisingly we found a difference in the rate of success between the first and subsequent intervention groups. The results showed comparable program effects in both seasons, although the spring groups – the first intervention wave – seemed to be more successful than fall groups – the second wave. This finding was contrary to our expectation that growing expertise among health educators would lead to greater program effects. An explanation for this unexpected result is that some of the health educators reverted to a more conventional, less effective, approach in which they relied on a fixed intervention manual. Process evaluation results, however, do not support this explanation. A second explanation is that women in the fall groups were more positive regarding safer sex strategies and slightly more motivated to practice safer sex at baseline measurement than women in the spring groups. Another explanation could be community empowerment (Bracht et al., 1999). Since the Surinamese and Dutch Antillean population is a small community and participants of the first groups perhaps may have influenced the later groups, causing higher pre-test scores and thus lower effect sizes.

The Uma Tori methods were derived from problem-based learning (PBL), consciousness raising, and observational learning. Our study clearly indicated that both health educators and participants appreciated the flexibility of the program providing opportunities to 'set the agenda' and to present and discuss issues they regarded to be relevant. Although the results show that the implementation of the core program method to raise consciousness – dramatic relief by personal testimonies – had encountered many difficulties, it appeared that the program managed to raise awareness about sexual risks and risk reducing strategies. It seems that the flexible nature of the program facilitated women in creating opportunities to disclose and share their personal histories during the group sessions. Process evaluation results indicate that this program feature was central to program's success.

A 'double-edged sword' with Uma Tori is that the interactive nature of the program pushed the boundaries of the group facilitators' comfort and skills. The facilitators who tried the methods usually liked the program, attributed personal growth to Uma Tori and adopted the program strategies as a regular part of their health education practice. However, others were unable to adopt the strategies and therefore implementation was uneven.

An important part of the intervention development was the development of training for the VETC in new techniques and methods. The skills the educators learned can be used in their work as peer health educators and be applied to other health problems and different populations. After the training they were able to carry out Uma Tori, interactive group education using PBL and applying the strategies in a flexible way. We may conclude that all the health educators performed PBL. In regards to the fidelity of delivery, the interviews and group discussions suggested that women were very positive about the problem - based approach of the program. The participants were given ample opportunity to bring their personal questions and topics to the intervention. Despite the problem-based character of the program, it was revealed that in most of the groups all the materials in the tool kit had been used, instead of only a selection of the materials.

5.5.6. Methodological issues: Effectiveness versus feasibility

The most serious limitation of our study concerns its research design. Despite our intention to conduct an RCT, it turned out to be impossible to include a (waiting-list) control group – our attempt to include a control group resulted in a response rate of 5%. Consequently, the only feasible design was a prospective study without a control condition. Gomez et al. (1999) and

Dooris (2005) among others have suggested that instead of focusing on RCT, evaluating effectiveness of interventions should be conducted in real-life practices. Consequently, the only feasible design was a prospective study without a control condition.

Furthermore no long term follow-up measurement was conducted because none of the participants could be motivated to participate in a post-test after 6 months. Although our study suggests short term program effects, these effects are by no means a guarantee that women will succeed in reducing the sexual risks henceforth (Dancy, Marcantonio et al., 2000; Ehrhardt et al., 2002).

A final limitation relates to women's reluctance to answer questions about condom use. Conducting research using self-administered questionnaires among this population was found to be strenuous (CBS, 2005). Participants showed an aversion to questionnaires and considered many questions about sexuality too intimate. Consequently, we were unable to include condom use as an outcome measure. Furthermore, because of the missing variables only 202 of the 253 participants could be used in the multivariate analyses.

We piloted Uma Tori at three locations: the Municipal Public Health Services in Rotterdam, The Hague and Amsterdam. The large differences we found in effectiveness were primarily due to differences in implementation. A small-scale evaluation of a Valentines campaign in 2001 - a project aimed at minority youth - carried out by the Municipal Public Health Services of Amsterdam and Rotterdam, also showed marked outcome differences. In Rotterdam, the Valentines campaign seemed to have stimulated positive attitudes to condom use and improved knowledge (de Graaf & Sandfort, 2001). The main question to be answered is which underlying facilitating and/or impeding factors are of influence. Various explanations could be (1) the particular skills or characteristics of specific health educators or coordinators, (2) different allocation of resources in the GGD, (3) distance between the GGD and the priority group, or (dis)trust of the priority group regarding activities of the GGD, or (4) familiarity of the GGD and health educators in implementing this kind of health promotion.

Despite the limitations of our evaluation we may conclude that this study adds to the evidence that multiple session, small group interventions, will have a bearing.

The previous chapters described the planned development and evaluation of 'Uma Tori! Kòmbersashon di hende muhé' (women's stories), an STI/HIV-prevention intervention focusing on women of Afro-Surinamese and Dutch Antillean descent in the Netherlands. More specifically the goals of the project were to describe the risk behavior of the priority population and the factors influencing this behavior (chapter 2), the translation of this formative research into program objectives (chapter 3); the development of the intervention, integrating theoretical methods and empirical evidence and translating them into practical strategies (chapter 4); and the evaluation of the pilot Uma Tori (chapter 5).

Regarding the latter, Uma Tori was received with enthusiasm by all health educators and participants. Most participating women attended all the intervention sessions, and after the program they scored significantly higher on almost all outcome measurements that were included in the evaluation. As such, the program seems to have improved STI-related knowledge and it seems to have had favorable effects on the psychosocial cognitions related to safer sexual practice.

These are important outcomes. Although our evaluation lacked scientific rigor, the circumstantial evidence for favorable program effects were echoed in the post-intervention interviews with program participants and health educators. As such, Uma Tori showed that it is possible to develop and implement an STI-HIV-prevention program for migrant groups that goes beyond a transfer of information and that motivates women to attend a number of subsequent small group meeting on a voluntary basis. It shows that it is possible to develop a program for a so-called hard-to-reach group that does make a difference.

In our view, the secret of success has to be attributed to the participatory planning approach. From start to finish, one way or another minority women collaborated on program development, either directly through panels or indirectly through key informants. The linkage system that we set up seems to have accomplished that the program was matched to women's needs and to their socio-cultural background; not only as regards program content, but also as regards program delivery.

In this concluding chapter, the following issues are addressed: (1) the application of IM in the development process, (2) the integration of cultural elements in the developmental process, (3) issues relating to prioritizing an ethnic group, ownership, participation and acceptability, (4) reflection on methodology applied in the project (5) culturally appropriateness of research

Figure 6.1. Intervention Mapping steps and tasks

methods, (6) application of theories, (7) reflections on a women-centered approach, and (8) implementation and diffusion issues. Finally, recommendations will be given on developing STI/HIV interventions for priority groups. In the Epilogue the current status of Uma Tori is given and recommendations will be suggested regarding further implementation of the program.

6.1. Reflection on Intervention Mapping as a planning framework

Designing health promotion programs is a complex process that requires professional skills and experience. Health problems will never directly lead health promoters to clear-cut solutions, and a cook book providing clear recipes for reducing health problems will never become available. In our view, IM provides a framework for demystifying the complex process of building health promotion programs. It provides a structure and tools that will support health promotion planners in their work by breaking down the process into phases, and by breaking down these phases into specific tasks that program planners have to complete (see Figure 6.1.). For each of the phases the framework provides guidelines and tools for the use of theory and evidence, but also for the collaboration among health promoters, researchers, priority groups and stakeholders.

In practice, however, IM is not a step-by-step procedure. When starting the development of an intervention one needs to plan ahead. In selecting the performance objectives the planning team made agreements about delivery, anticipating sustainability and being restricted by financial and structural issues. Furthermore, the methods and strategies had to fit into the program and the program design had to allow room for appropriate strategies.

The development of Uma Tori illustrates the iterative nature of intervention development. On the basis of results from the formative research, the selection of performance objectives was based on self-regulatory principles. However, given the agreement with the Municipal Public Health Services to deliver the program using VETC and the level of experience of the health educators, the planning team came to the conclusion that our original performance objectives were far too ambitious and that self-regulatory skills would be too complex to accomplish. Time and finances also limited the number of sessions that were attainable. We had settled on a 5-session group intervention, which restricted the objectives. As the process evaluation showed, the sessions all exceeded the proposed two-hours per session. The participants stated they wanted more sessions and more time to deal with all the themes. Much more time would be needed in order to complete the self-regulatory-cycle.

Using a planning tool like IM increases the likelihood of program effectiveness in promoting health, as such a tool prevents health promoters from jumping to conclusions, thus stimulating the systematic application of empirical evidence. IM enables health promoters to develop programs that include theory- informed strategies that match program objectives, and that match priority populations and intervention contexts. In addition, IM guarantees that health promoters anticipate a widespread and continued program implementation. And – perhaps above all – it provides a framework for the collaboration between research and development, priority groups and intermediaries, stakeholders and program producers.

6.2. Integration of cultural elements

Current suggestions for accomplishing cultural appropriateness are formative research and pilots. Intervention mapping guarantees that interventionists not only systematically consider cultural sensitivity when setting goals, but also when delineating intervention strategies, program design and implementation. The two interacting processes that enabled the planning team to develop some understanding of the culture of the priority population were a participatory approach to planning and thorough formative research. The information and interaction from these sources in the planning process enabled us to develop an intervention that used cultural understanding in several specific ways. The IM framework operationalizes the concept of active participation of priority groups in health promotion. As such, it provides specific guidelines for the development of programs that are culturally sensitive; programs that match the socio-cultural context of health and behavior of priority groups. The framework further clarifies that designing culturally sensitive programs goes beyond qualitative formative research and involves priority populations in the design and delivery of health promotion strategies and materials. It clarifies and emphasizes that cultural sensitivity should be considered throughout all the program design phases: in needs assessments, in setting and specifying health promotion goals, in the selection of methods and strategies, and in program production, delivery and evaluation.

Health promotion prevention programs are most likely to be effective when their objectives and strategies match the cultural contexts and social reality of priority populations (Resnicow et al., 1999; Parker, Easton et al., 2000; Kreuter et al., 2003; Kreuter & McClure, 2004). As argued in chapter 1 (§1.5.) a well-fitted surface structure will increase the receptivity and acceptance of the intervention, whereas deep structure conveys salience (Resnicow et al., 1999). Deep structure involves incorporating

core cultural values and embedding them into the design of the intervention activities and messages, and grounding the content of the intervention in the context, experiences, values, beliefs and norms of the priority group (Resnicow et al., 1999; Wilson & Miller, 2003).

The understanding of deep cultural elements, such as the women's descriptions of their sexual interactions and expectations and restrictions on sexual communication, guided the specification of the health behavior and performance objectives. The qualitative research methods in the formative research enabled the tracing of implicit and explicit cultural structures and the study of the complexity of the context in which sexual behavior takes place. The formative research presented deep structural manifestation and understanding of the structures and barriers of the desired behavior. It revealed, among other things, that Dutch Caribbean women did have opportunities to practice safe sex and negotiate with their partners in the matrifocal household structure. We tried to utilize constructive cultural aspects, instead of focusing on changing negative cultural practices.

Based on our qualitative study, the planning team decided to focus on the wider range of safe sex strategies and not just consistent condom use. Consequently, women would have the option to choose their own most feasible safe sex strategy. Sense of ownership was increased by the participatory approach in program design but also by letting the participants take control of the themes to be covered in the sessions and by giving them the opportunity to take control of their personal safe sex decision-making. The core values of responsibility were incorporated in the performance objectives.

The evidence, theory used and program components were checked for cultural acceptability. Small group interventions are very much in line with Caribbean solidarity and social support. 'Tupperware-party' organization emanated from the women's social networks. Elements of culture including learning based on oral methods such as story telling, social networks, and hospitality and intimacy within the home formed part of the program delivery. Some core elements of Dutch Caribbean culture were incorporated in the content of the Uma Tori. The cultural tradition of storytelling resulted in using the women's stories as a core strategy. Other core values, such as issues of responsibility, respectability, double sexual standards and sexual scripts were interwoven throughout the program.

Superficial cultural elements (Resnicow et al., 1999) were integrated in the development and content, as well as in the

delivery of the program. We incorporated the use of peer educators and indigenous facilitators, the hostesses in the program. Videos, pictures, examples of women's stories, cultural relevance and familiar settings were accounted for in various strategies. All of the evidence given in the groups was directed towards the priority population. The materials and components of the Uma Tori were adjusted in line with the strategies suggested by (Kreuter et al., 2003): peripheral, evidential, linguistic, and constituent-involving.

The interactive design of Uma Tori enabled the women to determine their own leverage points for increasing sexual safety. Nevertheless, programs of this type that may cause participants discomfort with elements of culture as they increase awareness must be carefully monitored for both intended and unintended effects.

By involving the priority population, the implementers and the users of the program throughout the development of the program, a sense of ownership, acceptance and approval of the final program seems to have been created. The involvement of the community was particularly important in ensuring that the strategies were appropriate and acceptable to the intended audience.

6.3. Ownership, participation and acceptability

The exploration of cultural elements for the purpose of designing interventions must be subjected to ethical considerations of the potentially adverse effects of the intervention on the recipients' functioning within the culture.

An important question in health promotion is whether it is justifiable to intervene in someone's personal life style. There is a tension between respecting personal choice and personal responsibility for one's health and implementing health promotion programs, especially large-scale interventions (Holm, 2007).

Is health promotion by definition paternalistic, a top-down approach? And is it possible to truly incorporate the needs of a population, a bottom-up approach? IM indicates the importance of theoretical foundations. Therefore, one may argue that IM is a top-down-approach to health promotion. However, the involvement of the community from the beginning seems to have increased their sense of ownership.

Targeting a priority group involves risks of social stigmatization (Holm, 2007). Because of their relation to sex, AIDS, HIV, and STI

are delicate topics and not easily debatable issues in ethno-cultural minority communities (Haour Knipe, Fleury et al., 1999; Martijn et al., 2004). In prioritizing an ethnic minority, it is essential that health promoters refrain from 'victim or culture blaming' (Ryan, 1976).

It has been argued that STI/HIV-prevention intervention should be targeted towards people who engage in sexually risky behavior. Therefore a priority group should not consist of people sharing a similar ethnic background but instead sharing the same risky behavior. Messages should be directed towards contextual situations rather than at priority groups (Hausser, 1997).

When addressing migrant populations or ethnic minorities, there is a risk of not taking into account the diversity and the wide variety of contexts. It is difficult to discover a common denominator and impossible to focus on the specificity. By focusing on the deep structures of a culture we improve the credibility of an intervention as well as its match with the priority group.

We have tried to focus and strengthen the positive aspects of the Dutch Caribbean culture instead of only trying to change negative aspects or remove the barriers. The participants of our formative research were proud, strong-willed, responsible and respectable women and therefore capable of decision-making and negotiating with their partner. We connected with these characteristics and tried to make the women aware of their own possibilities and power. We focused on the health and related behavior issues explicated by the priority group without imposing a different system of values and respected their individual choices as much as possible.

6.4. Reflection on methods used

6.4.1. Study sample

The results of our survey (see chapter 2 and appendix 1) were based on a relatively small sample and our sampling procedure, sampling by convenience, may have caused selection bias. Although our sample seems fairly demographically representative for the larger population of Surinamese and Dutch Antillean women in the Netherlands (van der Poel & Hekkink, 2005), it might not be representative regarding sexual communication. Therefore, we need to be cautious in generalizing the results from this study to the total Surinamese and Antillean population. Given the fact that sexuality is still considered a taboo in these populations, a remarkable number of our participants were rather positive about negotiating safe sex, perhaps an indication of social desirability. Consequently, caution is needed regarding the interpretations of absolute scores.

Our selection of participants in our qualitative study (see chapter 2 and appendix 2) was by convenience sampling and participation was voluntary. We did not aim for representativeness and tried to include women from a broad variety of socioeconomic backgrounds. Considering the sensitiveness of our interview topics, we may have included a certain subgroup of participants who were more eager to discuss intimate issues and were better at expressing themselves than others since they were slightly higher educated and Dutch speaking, a prerequisite for participation.

Sample and recruitment evaluation: Tupperware-party as recruitment strategy?

The aim of this project was to reach the general population of Caribbean women, therefore no special actions were undertaken to reach the high-risk, and more difficult to reach groups. Additionally, because the recruitment strategy relied on the networks of health educators and hostesses we did not include high-risk and hard-to-reach subgroups, such as drug-using young girls. It is questionable if our social network strategy is useful in reaching these girls; outreach seems to be more effective (Pulley et al., 1996; Brown-Peterside et al., 2001; Rowden et al., 2001; Tross, 2001).

Attendance rate in the intervention was quite high. The recruitment of participants using the 'Tupperware-party' model turned out to be adequate, at least in Rotterdam. Because the sample was not an at-risk group and the scores on the baseline measures were quite high, it might be the case that instead of changing behavior, the program only succeeded in confirming or consolidating existing behavior.

Our rather small sample may raise a question about the representativeness. Although our sample seemed quite representative regarding various socio-demographic variables, it had better educated and more unemployed rate than the general female Dutch Caribbean population. Our rather small sample may raise a question about the representativeness.

Differences between the sample in the formative study and in the evaluation

As stated above, the sampling procedures in all of the studies relied on voluntary convenience sampling. The samples did not differ on socio-demographic variables from one another. We tried to reach the general Dutch Caribbean population and did not aim at a particular subgroup. However considering the voluntary nature of our recruitment we could discern some differences between the samples of the different studies. As our process evaluation revealed, the women who joined the

intervention seemed to be less knowledgeable than demonstrated by the analysis of the formative research. We had not anticipated a low level of knowledge. Women signed up for the intervention possibly because they yearned for more knowledge, while the participants of the formative research joined because they wanted to share their knowledge. The flexibility of Uma Tori allowed the health educators to adjust the program to meet these needs (see § 5.5.3. for discussion on the evaluation outcome measures and sample).

6.4.2. Methodological issues regarding formative research

Multi-method approach

A multi-method approach has been applied in the formative research as suggested by Dixon-Woods et al. (2004) and Bartholomew et al. (2006). A benefit of a multi-method approach is that different types of data can be collected, i.e. quantitative data on cognitive correlates of behavior and context of the behavior, including experiences and opinions, therefore providing a complete picture of the behavior and factors influencing the behavior and risky situations. Furthermore the data complement one another. For instance, the survey indicated that the correlates of safe sex negotiation differed between steady and casual partners, and the interviews revealed how the participating women experienced these types of relationships. The FGDs gave more in-depth information on the opinions of the women on relationships. However a multi-method approach also has its limitations and our formative research had some specific limitations. Conducting more studies restrains time and resources. Issues relating to sample characteristics and generalizability of the results have been discussed in § 6.4.1.

Another limitation – and perhaps a more serious one – of our formative research is that it only portrays the views of women; it would be interesting to study the perspectives of their male partners and also their behavior. A last limitation refers to cross-sectional design of our study. Future research should study sexual behavior and safe sex negotiation behavior in a longitudinal perspective.

Limitations of the Survey

Our survey had its own limitations (see appendix 1). With respect to the limited number of women with casual partners, we may postulate that very few participants have experience with casual contacts. Hence, they may not yet have formed clear personal beliefs regarding discussing safe sex strategies with casual partners. The results on the correlates of intention to discuss safe sex with casual partners might portray more general instead of personal beliefs.

If safe sex negotiation indeed contributes to safe sex practice, it would be interesting to know which negotiation strategies are employed and which strategies are most successful. By focusing on negotiation practices in the qualitative study we were able to analyze different negotiation strategies. Whether surveys are a sound instrument to use with this population is discussed in § 6.5.

Interviews and FGDs

Given the qualitative and descriptive nature of the interviews and FGD, we need to take into account some limitations of the results. Other issues may be the influence of social desirability on the participants and the influence of the interviewer, as the interviewers were of a different ethnic background. We applied triangulation of collection techniques (Maso & Smaling, 1998). Furthermore the preliminary results were checked in FGDs and between the interviewers and interviewees were asked for comments. In addition, we found the results of our study to be generally in line with previous research on gender roles in Caribbean cultures (e.g. Krumeich, 2000; Smith, 2001; Gupta, 2002; Terborg, 2002; Prior, 2005; Quinlan, 2006), we may conclude therefore that our results fit the general scheme of how masculine and feminine roles interact in Caribbean cultures.

- 6.4.3. Methodological issues evaluation: Effectiveness versus feasibility
The most serious limitation of our evaluation study concerns its research design. Despite our intention to conduct an RCT, it turned out to be impossible to include a (waiting-list) control group – our attempt to include a control group resulted in a response rate of 5%. Consequently, the only feasible design was a prospective study without a control condition. Gomez et al. (1999) and Dooris (2005) among others have suggested that instead of focusing on RCT evaluating effectiveness of interventions should be conducted in real-life practices. Consequently, the only feasible design was a prospective study without a control condition (see also § 6.5.2.).

Furthermore no long term follow-up measurement was conducted because none of the participants could be motivated to participate in a post-test after 6 months. Although our study suggests short term program effects, these effects are by no means a guarantee that women will succeed in reducing the sexual risks henceforth (Dancy et al., 2000; Ehrhardt et al., 2002).

A final limitation relates to women's reluctance to answer questions about condom use. Conducting research using self-administered questionnaires among this population was found to be strenuous (CBS, 2005) (see also § 6.5.1.). Participants

showed an aversion to questionnaires and considered many questions about sexuality too intimate. Consequently, we were unable to include condom use as an outcome measure. Furthermore, because of the missing variables only 202 of the 253 participants could be used in the multivariate analyses.

6.5. Culturally appropriateness in methodology

An issue that needs to be addressed is how much a priority group can participate in the development, delivery and implementation of an STI/HIV prevention intervention. Using a linkage group, involving members from the community and peer health educators who also delivered the program, created acceptability of the objectives, the methods, strategies and materials. As a rule priority groups or linkage systems are rarely involved in conceptualizing appropriate research methods. For the priority group in this project we have found that using written questionnaires and a RCT-design for the evaluation were less appropriate.

6.5.1. Surveys and questionnaires

Conducting research using self-administered questionnaires among this population was found to be strenuous. Response rates were very low and the number of missing items was considerable. Participants showed an aversion to questionnaires and considered many questions about sexuality too intimate. Questions about condom use in particular were not answered; consequently we were unable to include condom use as an outcome measure. Other researchers conducting quantitative analysis of behavior among these ethnic groups in the Netherlands have encountered similar problems (CBS, 2005).

In using questionnaires aimed at studying sexual practice, the contextual elements and the complexity of interaction between partners is likely to be neglected. Some authors claim it is impossible to analyze sexual decisions and the dynamics of partner relationships by using questionnaires (Hausser, 1997; Ingham & van Zessen, 1997).

Qualitative methods, like in-depth interviews and using focus group discussions (FGD) have proven to be a more satisfactory approach. The in-depth interviews and FGD in our formative research (chapter 2), the panels throughout the development of the program, and the qualitative process evaluation have provided us with rich and abundant contextual information on which to proceed.

6.5.2. RCT as a golden standard

Acceptability of the intervention was guaranteed by involving the priority population, and letting them participate in the developmental process. Unfortunately, we did not rely on this

participatory approach in the design of the evaluation methodology.

Randomized Controlled Trials (RCTs), using experimental and control group conditions and randomly assigning participants to the different conditions, are still considered the golden standard in conducting evaluations (Mize et al., 2002). RCTs have been criticized more and more over the last decade. Especially in community oriented interventions or interventions aimed at empowerment and changing sexual scripts and norms (Gomez et al., 1999; Dworkin, Exner et al., 2006). Several authors (Wallerstein, 2000; Springett, 2001; Napp, Gibbs et al., 2002; Wallerstein et al., 2002; Evans & Lambert, 2008) have suggested a more participatory action research approach to evaluating interventions. Participants should have a say in what is evaluated (the nature of the health promotion program), for whom it is appropriate (who should gain from the evaluation) and what is an acceptable design. An intervention should be presented as a process of change rather than a 'dose or treatment' (Springett, 2001). Dooris (2005) calls for a real life setting approach evaluation. However researching empowerment in real life settings takes many years (Romero et al., 2006). Project ethnography and post-trial qualitative analysis might provide more and better answers to whether an intervention induces structural changes and to its sustainability over time (Pluye, Potvin et al., 2004; Dworkin, Beckford et al., 2007; Evans & Lambert, 2008). In the evaluation of the Uma Tori project (see appendix 4 and chapter 5), a qualitative process evaluation using logbooks, interviews and FGD has been conducted. Through triangulation of data collection we have tried to elaborate on the effects of the intervention. However, we believe that a more participatory approach in the formulation of evaluation questions would have created more of a sense of ownership of the intervention and therefore would have increased the willingness to participate in the evaluation.

6.6. IM and application of theories

Most of the models used in health promotion have an individual orientation and are based on the notion of individuals making rational choices based on available information. These notions imply that individuals are fully responsible, and therefore accountable for their behavior. Furthermore one may argue that an epidemiological analysis of sexuality implies that the individual is to be blamed. Structural deficits in the political and social system are overlooked (Hausser, 1997).

The formative research was based upon a multi-method approach. The survey based on the Integrative Model of Behavioral Prediction (Fishbein, 2000) clarified which determi-

nants were associated with negotiating safe sex practices, and how these were different for casual and steady partners. The qualitative research methods supplied in-depth information and background information explaining the factors influencing safe sex decisions. Individuals' expectations based on norms or experience determine behavior (Ahlemeyer & Ludwig, 1997). Knowing what is important in a relationship is a major determinant of behavioral choices (Hausser, 1997). It became clear that risk reduction strategies, negotiation and monogamy were much more attractive to the participants, and that focusing on these risk-reduction strategies was positively received by the participants.

In conducting our formative research, context-related models were helpful in uncovering the sexual culture. However, when it comes to methods for behavior change these models do not present clear answers. We are aware of the tension between using people's ideas as a starting point and translating these into theoretically based methods. We have therefore described the realities of the women from an etic perspective, i.e. the researchers' perspective. One can argue that the needs that have been addressed in the intervention are the needs identified by the researcher and health promoters and not the perceived needs of the women. On the other hand, considering the effects of our intervention one may contend that we have succeeded in linking the intervention closely to the realities of the women and to the context in which sexual behavior takes place.

Nevertheless it seems that we have lost the context in which sexual behavior takes place in applying individual oriented models, models proposed by the Transtheoretical Model (Prochaska et al., 2002) and active learning methods (Bandura, 1986), to our intervention. In a recent meta-analysis, Albarracín et al. (2006) have shown that these theories were viable across gender and cultural backgrounds.

Several authors have criticized these theoretical models, mainly the social cognitive psychological models, which are generally used in health promotion for designing methods and strategies for change and in research methodology. Criticisms are directed towards the one-sided focus on the individual, and towards the rational or cognitive perspectives of these models. Hausser (1997) claims lack of success of individually based methods because individuals do not make sexual decisions alone. Communication between partners and among peers is much more important in influencing sexual behavior. These individual oriented models are not applicable for changing sexual behavior, because the context plays a crucial role – every situation is different – so they claim. Sexual behavior occurs in an 'intimate

system' (e.g. romantic, hedonistic, matrimonial and prostitutive systems of partnerships), each with different norms and expectations. The challenge is to understand the context and interaction in these intimate systems (Ahlemeyer & Ludwig, 1997). There do not seem to be clear descriptions of methods and strategies that can be employed in a more system-oriented approach.

In choosing the methods in Uma Tori we have tried to keep a focus on the social context of the women. The theories, the methods and strategies, though individually oriented, all have a social component. Furthermore by encouraging women to discuss and relate their personal issues they were able to understand how social norms and perceived gender roles influence their personal relationships.

We have tried to encourage self-determination and creativity. Empowerment is based on attributes such as consensus, competence, collectivity, compassion and companionship. Societal power inequalities and even relational power relations are difficult to change through health promotion targeting only women. However, consciousness of balances of power in society and personal relationships contribute to self-confidence and self-esteem and obtaining insight into possibilities to deal with these inequalities (Bertens, 2003).

6.7. Reflection on the women-centered approach

Uma Tori was targeted only at women. Findings from the formative research including literature reviews (e.g. Mize et al., 2002; Exner, Dworkin et al., 2003) justified this approach. The formative research showed that in matrifocal households the women were the ones responsible for family decision-making, including family planning and contraceptive use. The participants in our research appreciated the small group intimacy in which they could speak freely about their male partners. This could not have been achieved if the groups were mixed. However, the participants indicated that interventions should be developed for men as well. In future attempts men should be incorporated being part of the sexual interaction has been suggested by others (Sternberg & Hubley, 2004; Pérez-Jiménez, Serrano-García et al., 2007). Whether a program like Uma Tori would work with male participants needs to be investigated.

6.8. Implementation of interventions

For interventions to be successful, it is essential to ensure program adoption, implementation and sustainability. According to Rogers (2003), the adoption of a program depends on several factors: knowledge of the innovation; forming an attitude about the innovation; a decision to adopt and imple-

ment the innovation; and conformity to the decision. Within this context, barriers and facilitators that can influence the acceptance and incorporation of a program should be anticipated (Rogers, 2003). These factors can be subdivided into six broad categories: (1) the external environment (e.g. regulations, policies), (2) the organization (e.g. staffing, regulations, scope of services, size), (3) practice mechanisms (e.g. mechanisms for the enhancement of prevention practices), (4) the individual provider (e.g. knowledge, skills, attitudes, experience), (5) the priority population (e.g. health and social functioning, expectations, skills), and (6) the encounter (e.g. location, client-provider interaction) (van Kesteren, 2007).

Some of these factors were addressed in the present project. We created a linkage group, including all essential representatives from the research and development team and key organizations. The health educators were involved in the program design and selection of the program methods and strategies and training was developed for them. To ensure sustainability national organizations were involved. During implementation, however, new inhibiting factors were identified. An unexpected result was that the implementation seemed to work in one location, but not in another. Future initiatives should anticipate contextual and organizational barriers to program implementation. Management or other representatives responsible for the allocation of resources should be included in the project to deal with the issues of personnel, time, and expectations (van Kesteren, 2007).

6.9. Recommendations for further research and intervention development

6.9.1. Recommendation for using IM

Using IM implies that an intervention is not contrived before the project. This could hamper the funding agencies, which need to decide on subsidizing an intervention development before having a clear description on what the intervention will encompass. Nonetheless, reviews of health promotion intervention studies have shown that the quality of planning is the best predictor of success. IM is an effective tool and guide in developing interventions. IM should be used as an iterative and cyclical process. Program developers need to reconsider previously made decisions and not fear adjusting them.

Thorough formative research, utilizing a multi-method approach and participatory actions from members of the priority group guaranteed that their needs were taken into account. These needs might be much broader than the risk behavior and need to be taken into consideration. Creating planning teams and linkage groups as proposed by IM aids participation and a sense

of ownership. However participatory and responsive research methodology (Wallerstein et al., 2002) should not only be restricted to the intervention development but we should also involve the priority population in the development of research methodology and evaluation of the programs.

- 6.9.2. Recommendations for STI/HIV-prevention and research
- Long term sexual behavior change is a disheartening endeavor (Albarracín et al., 2006). In describing sexuality in health promotion, sexual behavior is linked to health and disease, but for most people it is related to (immediate) pleasure and intimacy (Hausser, 1997). Rather than focusing on individual beliefs, norms and attitudes, there should be a focus on context, interaction, and the time frame of sexual acts. To use or not to use a condom relies on dynamics surrounding intimacy (Ingham & van Zessen, 1997). The sex act is not an isolated incident, but part of a sexual episode and part of a sexual relationship which develops and changes over time (Hausser, 1997). Furthermore the social network exerts influence on the interpretation of sexual behavior and how sanctions can work for or against safer sex (Ferrand & Snijder, 1997). Focus should be on the relationship's dynamics, and interaction between sexual partners and the context of the relationship, instead of individuals (Hausser, 1997). Furthermore the social network exerts influence on the interpretation of sexual behavior and how sanctions can work for or against safer sex (Ferrand & Snijder, 1997). Focus should be on relationship's dynamics, and interaction between sexual partners and context of relationship, instead of individuals (Hausser, 1997). Prevention messages should target social networks intent on changing group norms leading to safer sex or maintaining safer sex and should focus on definitions of safe and unsafe sex. More successfully adopted risk reduction strategies are indeed compatible with the needs and patterns of partner interaction. Sexual behavior as a relational process arguably needs a relational theory on sexuality (Ferrand & Snijder, 1997). Until recently much of the theory and research on HIV behavior change has been individualistic in conceptualization, ignoring the social and cultural context of women's behavior (Amaro & Raj, 2000; Wingood & DiClemente, 2000). Theories like the ARRM, HBM, TRA, SCT, TTM assume that the individual has total control over behavior and do not address the diverse contextual factors related to gender (e.g. power differentials, gender roles, relationship types) (Harvey et al., 2003).

Questionnaires to describe, explain or predict sexual behavior miss out on the temporal perspective (Cohen & Hubert, 1997). The context of a relationship and the meaning of sexual

intercourse changes over time (Hausser, 1997). Partners don't 'have' a behavior; they 'do' a behavior (Ferrand & Snijder, 1997).

Taking all these considerations into account, there is a need for a change in perspective. Prevention strategies should be at societal, individual and interpersonal levels. This move from individual to social and interaction-oriented perspectives implies a paradigm shift in current research and health promotion (Hausser, 1997). More research should be done in incorporating this interactional and context focused approach. It should be 'normal' to practice safe sex. Though most health promoters and researchers acknowledge that the context should be taken into account in order to change behavior (Logan, Cole et al., 2002), many are trapped by limitations in funding and the existing golden standards of for instance RCTs (Holtgrave & Curran, 2006).

6.10. Epilogue: Status of the Uma Tori program

Despite the limitations of the design, Uma Tori seems promising. The intervention was received with enthusiasm. It increased women's abilities to negotiate and practice safe sex.

Our literature review on sexual risk-taking among women and our evaluation of previous interventions revealed that many of the issues facing Dutch Caribbean women are of significance to the well-being of women in general.

Although Uma Tori was specifically developed for Dutch Caribbean women, we believe that because of its flexibility the format may possibly be used for other populations of women. One would of course have to re-assess the strategies and materials for appropriateness and replace some of them.

The Municipal Public Health Services of Rotterdam has adopted the program and is extending the use of Uma Tori. New groups have started sessions and some of the old groups have expressed a wish to continue. The Municipal Public Health Services of Rotterdam are thinking about using elements of Uma Tori for different priority populations and other risk behaviors. A project has been conducted to also reach ethnic minority men (Wolfers et al., 2007).

The peer health educator from The Hague has started a hostess organization, Bureau Homeparty & Innovation. The Municipal Public Health Service of Amsterdam will decide on implementing the program after receiving the effectiveness evaluation. Considering the positive reactions received from health promotion practitioners (Radyowijati & Gerrits, 2006; Vrolings et al., 2006) in the Netherlands and taking note of the references

made to the program by organizations and on websites (e.g. VETC newsletter, NIGZ, Schorer Stichting, Netherlands Ministry of VWS, International AIDS Society, Municipal Public Health Services Rotterdam, NICIS Institute for Urban Research & Practice, and SOAAIDS Netherlands), Uma Tori shows potential for further implementation.

Yet, for implementation and dissemination on a larger scale some recommendations need to be suggested. Uma Tori in its present form is too time-consuming and too human resource intensive for the current funding agencies. The specific strategies and materials used should be re-assessed for applicability and should be updated. Uma Tori can be considered as an 'introductory course' focusing on consciousness raising. For further behavior change the program should be extended, prolonged and broadened.

The educators will need more training and practice in didactic, self-regulatory, and group discussion skills. The training program for the educators should be elaborated and extended and include additional on-the-job training and supervision. Most importantly, more insight information on barriers to implementation is needed. We suggest research into adoption and implementation issues and participatory research.

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Summary

Recent surveillance data indicate a relatively high prevalence and incidence of sexually transmitted infections (STI), including human immunodeficiency virus (HIV), among ethnic minority populations in the Netherlands, among whom women of Afro-Surinamese and Dutch Antillean and Aruban descent. Furthermore, there is a lack of effective comprehensively evaluated and cultural-sensitive STI/HIV prevention interventions targeting priority populations.

The present thesis describes the development and evaluation of a theory- and evidence-based STI/HIV-preventive intervention for women of Afro-Surinamese and Dutch Antillean descent. Chapters 2 to 5 present a comprehensive overview of the entire program development process. Each of these chapters illustrates a step in the program design. It demonstrates the application of the framework Intervention Mapping (IM) to the design of a culturally sensitive and a gender specific health promotion program, called 'Uma Tori! Kòmbersashon di hende muhé' (meaning 'Women's stories'). IM consists of six fundamental steps: (1) conducting a needs assessment (chapter 2); (2) specification of the program objectives (chapter 3); (3) selecting theory-informed intervention methods and practical strategies (chapter 4); (4) producing program components and materials (chapter 4); (5) planning program adoption, implementation, and sustainability (chapter 4); and (6) planning for evaluation (chapter 5). This thesis also includes an appendix of four papers addressing the core activities of the Uma Tori project.

Cultural sensitivity was ensured by incorporating the realities and the social context of the priority women, by uncovering deep cultural structures and core values and addressing these in the intervention and by featuring peripheral, evidential, linguistic, constituent-involving and socio-cultural strategies in not only the program elements but also in the delivery of the intervention. Furthermore participatory program planning was warranted by maintaining corroborative engagement from the priority women and involving a linkage system, composed of researchers, implementers, users, researchers, financiers, intermediaries and priority women throughout the development process, and in each of the steps described.

In order to gain insight into the cultural context of sexual relationships, to understand gender roles and the relational context of sexual decision-making and safe sex negotiation

among Creole-Surinamese and Dutch Antillean women, a quantitative and qualitative study were conducted as components of the needs assessment. Chapter 2 summarizes the main results from the formative research (IM step 1), substantiated by literature review and verified by informal key informants and expert panels, part of our linkage group.

We conducted 28 in-depth interviews and eight focus group discussions of an additional 48 women between 19 and 47 years of age of Afro-Surinamese and Dutch Antillean descent to better understand the context of the risky behaviors, relationships, safe sex decision-making, gender roles, relational factors and negotiation strategies in sexual relations. The aim of this qualitative study was to analyze whether the cultural background of Caribbean women in the Netherlands would prohibit or encourage women to discuss matters concerning sexuality with their partner, uncovering and understanding interacting structures of power and margins to negotiate safe sex within relationships and the matrifocal household structure.

The interviews revealed that women did not perceive themselves to be at risk for STI, primarily because they do not believe their relationships to be risky. They primarily relate HIV/STI susceptibility to their own behavior, although they acknowledge that many Caribbean men have concurrent relationships. The research further suggested a tendency among women to perceive all their sexual relationships as steady, intimate and trustworthy. Most women indicated they felt rather comfortable and capable of negotiating safe sex in steady relationships; however, they seem not to feel a need to do so. In negotiating safe sex with a partner, women reported encountering ambiguity between being respectable and being responsible, core values of being a woman. Their independence, autonomy, authority and pride inherent to the matrifocal household give them ample opportunity to negotiate safe sex and power to stand firm in executing their decisions. The need to be respectable burdens negotiation practices, because as respectable, virtuous women there would not be the need to use condoms. Respectable women will only participate in serious monogamous relationships which are inherently safe. Women's desire to feel like a woman, 'to tame the macho-man' and constrain him into a steady relationship, limits negotiation space because of emotional dependency. Respectability seems to enforce not to question men's sexual infidelity.

A quantitative study based on the Integrative Model of Behavioral Prediction was conducted among a convenience sample of 128 women of Surinamese and Dutch Antillean descent. Participants completed a questionnaire about safe sex

behavior, safe sex negotiation and communication, intention to negotiate, and related attitudes, perceived descriptive and injunctive social norms, and self-efficacy. The survey showed that negotiating safe sex leads to safer sex practices. There appeared to be a difference between steady and casual partners. The women defined safe sex with steady partners primarily as monogamy. Negotiated safety and attitudes and norms were the most important correlates of negotiating safe sex with steady partners, whereas safe sex with casual partners was defined as condom use, and attitudes and perceived self-efficacy were the most important correlates of negotiating safe sex with them.

The health promoting behavior and program goal (IM step 2) described in chapter 3, encompassed more than condom use; it focused on the ability of women to choose their personal safe sex strategy, improving their capacity to control their own sexual health decision-making and to commence and maintain healthy relationships. Performance objectives were specified based upon the Aids Risk Reduction Model and self-regulation principles: consciousness and awareness raising regarding sexual risks and power in relationships, and enhancement of sexual decision-making skills, especially regarding personal opportunities to execute appropriate realistic risk reduction strategies. Cultural aspects like women's position in the matrifocal family structure, the importance of 'being a responsible woman' and conceptions of trustworthy sexual relationships were incorporated in both performance objectives and program change objectives. Potentially important determinants were knowledge, personal risk awareness, attitudes toward sexual risk reduction strategies, perceived social norms and social support, self-efficacy, sexual assertiveness, and skills.

Chapter 4 describes the program 'Uma Tori! Kòmbersashon di hende muhé' – meaning 'Women's stories! Conversation between women' in respectively Sranan and Papiamentu. The chapter details the program components, the underlying theoretical methods, the practical strategies and the delivery channels.

In IM Step 3, theory-informed intervention methods were identified to influence the change objectives and were translated into practical strategies. Intervention methods were to a large extent derived from Problem Based Learning (PBL), the Transtheoretical Model (TTM), and observational learning. Intervention sessions involved dramatic relief, active group interaction and discussion of topics and themes relevant to the particular groups of women and role modeling.

The main intervention strategy was women sharing and discussing personal testimonies. Sharing testimonies and discussing relational issues would not only increase women's awareness of their own risk situation, but would also empower them in setting personal and realistic goals in maintaining healthy relationships. Story telling ('taki tori') functioned as a tool to increase knowledge and positive attitudes towards safe sex, and to reinforce negotiating safe sex with their partners. Peripheral and linguistic presentation approaches were used to adjust the selection of strategies and materials to the 'Caribbean' culture of our priority population.

The final program (IM step 4) included a toolkit with program materials that could be implemented to accomplish groups' objectives. This kit comprised of 1) exercises to encourage women to select topics and themes of personal interest, formulate issues they encountered, 2) audiovisual materials to raise risk awareness, 3) materials to accomplish story telling, experience sharing, and small group discussion, and 4) role playing techniques to improve communication and negotiation skills and problem solving skills.

For the delivery of the program methods and strategies (IM step 5), we settled upon a series of interactive group sessions. Groups were stimulated to define their own problems in relation to sexual relationships and safe(r) sex, and to set their own learning objectives. The program relied on elements from the 'Tupperware party' and 'Home party' approach in which a hostess creates a group from her own social network and organizes group sessions. This approach matched women's matrifocal socio-cultural situation. To facilitate sustainability of the program, our implementation plan included national organizations responsible for the training of migrant peer educators, and municipal health centers employing migrant peer educators. A training was developed for migrant peer educators that focused on group dynamics, discussion and communication skills, flexibility and delivery of the Uma Tori strategies.

Uma Tori was realized in 2004 – 2005. In total 456 women signed up for the program, 386 women participated in the program and 360 (93%) women filled in the baseline questionnaire. Chapter 5 describes the program evaluation (IM Step 6). Uma Tori was piloted by the Municipal Health Centers of Rotterdam, Amsterdam and the Hague in 2004 -2005. Nine health educators carried out 41 groups, averaging 10 women per group. The outcome evaluation questions were taken from the planning matrix. Knowledge about STI/HIV, risk susceptibility and severity, attitudes toward safe sex practices, response efficacy, perceived social or subjective norms, perceived social support, sexual

assertiveness, intention to negotiate and practice safe sex and sexual communication with a partner, were all assessed using a self-report questionnaire both before and after the intervention. In addition, a qualitative process evaluation was conducted using logbooks, interviews and focus group discussion to assess the fidelity and completeness of program implementation. The evaluation revealed that Uma Tori was received with enthusiasm by all health educators and participants. In addition, effect evaluation suggested that the program had a positive impact on all outcome measurements, except for perceived social support. After the program: 1) Women's knowledge about STI, transmission routes, and risk reduction strategies had increased, as well as their personal risk awareness; 2) Women's attitudes and perceived norms regarding condom use, monogamy and negotiated safety had become more positive; 3) Women reported higher levels of self-efficacy and sexual assertiveness. Moreover, the evaluation suggested that the program had improved communication about sexuality and safer sex between women and their partners. Process evaluation revealed that the home-party recruitment strategy had worked out well. The intervention sessions covered all the topics. Most groups had spent a lot of time on implementing strategies regarding knowledge about sexuality, STI and condom use, condom use skills, and sexual negotiation. The personal testimony strategy, sharing their 'life tori' regarding sexuality and sexual relations, was too confrontational for participants evoking a lot of emotion. In conclusion, the evaluation suggested that the interactive, multiple sessions, multi-faceted small-group intervention can be successful in inducing increasing awareness, sexual assertiveness and intentions to negotiate and communicate with partners, provided that it is gender specific and culturally sensitive.

The dissertation concludes in Chapter 6, with a general discussion of a reflection on the use of Intervention Mapping as a planning framework, a consideration of the alleged cultural sensitivity and the application of theories and ethical issues of using a women centered approach in intervention development. Methodological issues related to the research methods and the cultural appropriateness of these methods are dealt with. Recommendations for further research and practice and implications for the implementation of Uma Tori are presented as well.

Samenvatting

Vrouwenverhalen, 'Uma Tori! Kòmbersashon di hende muhé':
SOA/HIV preventie voor Afro-Surinaamse en Antilliaanse/Arubaanse vrouwen

Recente gegevens tonen een relatief hoge prevalentie en incidentie van seksueel overdraagbare aandoeningen (SOA/HIV) onder etnische minderheden in Nederland. Ook de Afro-Surinaamse en Antilliaanse vrouwen worden hiermee geconfronteerd. Massamediale veilig vrijen voorlichtingscampagnes lijken deze doelgroep niet te bereiken en/of de boodschap spreekt hen niet aan. Er is vraag naar effectieve voorlichtingsprogramma's voor deze doelgroep.

In 2001 is een SOA/HIV-preventie project onder vrouwen van Afro-Surinaamse, Antilliaanse en/of Arubaanse afkomst in Nederland van start gegaan. In samenwerking met vrouwen uit de doelgroep en het NIGZ, heeft de capaciteitsgroep Gezondheidsvoorlichting (GVO) Universiteit Maastricht de interventie 'Uma Tori! Kòmbersashon de hende muhé' (Vrouwenverhalen) ontwikkeld. Het project is gericht op het ontwerpen en evalueren van een SOA/HIV voorlichtingsprogramma en omvat drie fasen: 1) interventievoorbereidend onderzoek, 2) interventieontwikkeling, 3) implementatie en evaluatie.

Dit proefschrift bestaat uit twee delen. In het eerste deel wordt in vijf hoofdstukken het gehele ontwikkelingsproces stap voor stap beschreven. Het tweede deel, de appendix, bevat vier gepubliceerde artikelen. De eerste twee artikelen beschrijven het interventievoorbereidend onderzoek, het derde en vierde artikel behandelen respectievelijk de interventieontwikkeling en de evaluatie van de interventie.

Hoofdstuk 1 geeft een uiteenzetting van de aanleiding om een op de doelgroep afgestemde, en dus genderspecifieke en cultuursensitieve, SOA/HIV-preventieprogramma op te zetten. Het programma, Uma Tori, is ontwikkeld en geëvalueerd volgens het Intervention Mapping (IM) raamwerk. Dit bestaat uit zes fundamentele stappen: 1) uitvoeren van vooronderzoek ofwel analyse van het gezondheidsprobleem, het gedrag, omgeving en factoren van invloed op het gedrag en de omgeving (hoofdstuk 2, appendix 1 en 2); 2) voorbereiden van de te behalen programma- en veranderingsdoelen (hoofdstuk 3); 3) selecteren van theoretische voorlichtingsmethodieken en praktische strategieën (hoofdstuk 4); 4) plannen van adoptie, implementatie en behoud van het programma (hoofdstuk 4); evalueren van het programma (hoofdstuk 5 en appendix 4).

Getracht is het programma zoveel mogelijk aan te laten sluiten bij de wensen en de cultuur van de doelgroep. De toegepaste methodieken, strategieën en werkvormen zijn in overeenstemming gebracht met oppervlakkige, of perifere culturele kenmerken. Maar ook wordt gepoogd de 'diepe' culturele kernwaarden aan te spreken. Het voorlichtingsprogramma is ontwikkeld in nauwe samenwerking met de doelgroep, uitvoerders en intermediairs middels een 'linkage group'. De doelgroep is voor de interventie ontwikkeling geconsulteerd via expertpanels, focusgroepen en diepte-interviews met uitvoerders en intermediairs.

Hoofdstuk 2 verschaft een overzicht van het vooronderzoek, of behoefte analyse (IM stap 1), en vat de belangrijkste resultaten samen. In de behoefteanalyse is onderzocht wat de specifieke problemen en behoeften zijn van de doelgroep. Het vooronderzoek, of 'needs assessment' op basis waarvan de interventie is ontwikkeld, bestond uit verschillende studies. Het onderzoek omvat individuele en groepsinterviews met deskundigen en leden van de doelgroep en een vragenlijstonderzoek. Het doel van de cross-sectionele kwantitatieve determinantenstudie, de vragenlijst, is het onderzoeken van de determinanten van onderhandelen over veilig vrijen met losse en vaste partners. 128 vrouwen vulden de vragenlijst in. Vrouwen die met hun partner onderhandelden, vrijden ook vaak veiliger. De definitie echter van wat veilig was verschilde: veilig vrijen met een vaste partner betekende voornamelijk monogamie en 'negotiated safety', en met een losse partner condoomgebruik. Positieve houding ten aanzien van veilig vrijen en subjectieve sociale normen waren de belangrijkste voorspellers van onderhandelen met een partner in vaste relaties. Voor losse relaties voorspelden positieve houding en eigen effectiviteit het onderhandelen over veilig vrijen.

In de kwalitatieve studie zijn 28 diepte-interviews en acht focusgroepen afgenomen. De Surinaamse en Antilliaanse vrouwen hebben over het algemeen een lage risicoperceptie. Zij relateren het risico dat zij lopen aan het eigen gedrag en niet aan dat van hun partner. Daarnaast definiëren zij seksuele partners als vaste partners. Het hebben van losse partners is voor vrouwen cultureel niet acceptabel. In vaste relaties komt nagenoeg geen condoomgebruik voor. Condooms worden geassocieerd met wantrouwen en ontrouw. De kernwaarden van het vrouwzijn behelzen verantwoordelijkheid en respectabiliteit. Autonomie, onafhankelijkheid, autoriteit en trots worden gezien als belangrijke kenmerken voor een vrouw. Al deze factoren creëren onderhandelingsruimte voor vrouwen binnen relaties. Aan de andere kant, als respectabele vrouwen die slechts

monogame, stabiele en inherent veilige relaties aangaan, zagen vrouwen niet de noodzaak om veilig te vrijen en daarover te onderhandelen. Ondanks dat vrouwen (financieel) onafhankelijk waren, geven velen aan emotioneel afhankelijk te zijn. Het hebben van een partner is belangrijk voor vrouwen. Vrouwen willen zich vrouwelijk voelen, d.i. begeerd voelen. Al geven zij aan dat macho-mannen 'players' zijn en niet te vertrouwen, hopen zij de 'player' te kunnen temmen. Het bespreken van veilig vrijen is moeilijk omdat zij bang zijn dat hun partner dan 'uit loopt'.

In hoofdstuk 3 worden de programma- en veranderingsdoelen (IM stap 2), beschreven. De uiteindelijke voorlichtingsdoelen, -methoden en -activiteiten zijn afgestemd op de resultaten van het behoefteonderzoek. Het doel van het programma is dat vrouwen gezonde seksuele relaties kunnen aangaan en behouden, en seksualiteit en veilig vrijen kunnen bespreken. Verder beoogt Uma Tori dat vrouwen binnen seksuele relaties de persoonlijke risico's die ze lopen beter kunnen inschatten en meer inzicht krijgen in hun machtspositie om beter in staat te zijn een persoonlijke strategie te kunnen bepalen voor veilige seks. Consistent condoomgebruik is slechts één van deze strategieën. Het programma tracht bij te dragen aan de zelfstandigheid van vrouwen, zodat zij zelf verantwoordelijkheid nemen in hun seksuele relaties.

De gedragsdoelen zijn gebaseerd op het Aids Risk Reduction Model (ARRM) en zelfregulatie principes. Rekening is gehouden met culturele aspecten zoals de positie van de vrouwen binnen het matrifocale huishouden en concepties van wat betrouwbare relaties zijn. De belangrijke gedragsdeterminanten die een rol spelen in de veranderingsdoelen zijn: kennis, persoonlijke risicoperceptie, houding ten aanzien van seksuele risicoreductie strategieën, subjectieve sociale normen en sociale steun, seksuele assertiviteit en vaardigheden.

Hoofdstuk 4 beschrijft het programma 'Uma Tori! Kòmbersashon di hende muhé'.

In IM Stap 3 zijn theoretisch gebaseerde methodieken gekozen en zijn deze vertaald naar praktische strategieën en werkvormen. De methodieken vinden hun oorsprong in probleemgericht leren, het transtheoretische model en observationeel leren. In IM Stap 4 wordt het programma beschreven. 'Uma Tori! Kòmbersashon di hende muhé' betekent in het Sranan en Papiamentu, letterlijk vrouwenverhalen en conversatie tussen vrouwen. Dat is ook waar het hele programma om draait. Het vertellen van tori's is een belangrijk aspect van de Surinaamse cultuur. Door het vertellen van hun eigen verhaal en het luisteren naar verhalen van anderen, kunnen vrouwen zich bewust worden van hun eigen seksuele gedrag. Door middel

van discussie en uitwisselen van ervaringen leren vrouwen van beslissingen die anderen hebben genomen. Ieder verhaal is anders, iedere vrouw zal andere vragen hebben over relaties en seksualiteit. Binnen Uma Tori mogen vrouwen zelf de voor hen belangrijke thema's aandragen. Dit verhoogt de interactiviteit en vraaggerichtheid.

De meeste werkvormen in het programma brengen een discussie op gang.

Er is een aantal nieuwe werkvormen ontwikkeld speciaal voor Uma Tori: o.a. de 'levenslijn', en rollenspelen om onderhandeling tussen partners te oefenen. De 'levenslijn' vormt de basis van de interventie. Vrouwentekenen hun eigen relationele levenslijn open wisselen ervaringen uit met andere vrouwen. Zij worden aangemoedigd om na te denken over hun seksuele relaties, welke risico's ze hebben genomen, of er specifieke risicovolle situaties zijn, en met welke partners zij wel of niet veilig vrijen. Vrouwen zijn zelf het best in staat om de voor hen meest geschikte en realistische strategieën te bedenken om veiliger te vrijen. Consistent condoomgebruik is ongetwijfeld de veiligste manier, maar niet in iedere relatie een reële optie.

Communicatie- en onderhandelingsvaardigheden, seksuele assertiviteit en eigenwaarde zijn belangrijk om met een partner tot goede afspraken te komen over veilig vrijen. De meest realistische strategie zal verschillen per situatie, partner en relatie. Over de implementatie en adoptie is nagedacht in IM Stap 5. Voordat vrouwen in groepsverband gevoelige onderwerpen bespreken, is vertrouwen en intimiteit nodig. Uit het vooronderzoek bleek onder andere dat Surinaamse en Antilliaanse vrouwen sterke sociale vrouwen-netwerken hebben. Wij hebben gekozen voor een 'tupperwareparty' model. In de praktijk houdt dit in dat een gastvrouw een groepje uit haar eigen netwerk samenstelt. De gastvrouw werft, motiveert en enthousiasmeert de deelnemers. De voorlichtster brengt het gesprek op gang, leidt de discussie en past waar nodig specifieke methodieken en werkvormen toe. Uma Tori is uitgevoerd door voorlichters uit de doelgroep met dezelfde culturele achtergrond in de eigen taal (Voorlichters Eigen Taal en Cultuur (VETC)). Ten behoeve van de implementatie van Uma Tori! is door het NIGZ een 5-daagse training voor VETC'ers opgezet en uitgevoerd. De VETC'ers zijn getraind in verschillende werkvormen, waar zij gedurende het programma uit kunnen kiezen.

Hoofdstuk 5 behandelt de wijze waarop de VETC'ers van de GGD's in Rotterdam, Amsterdam en Den Haag het programma hebben uitgevoerd en geëvalueerd (IM Stap 6). De evaluatie bestond uit een kwalitatieve procesevaluatie en een kwantitatieve effectevaluatie door middel van een vragenlijst vóór en ná de interventie. In totaal hebben bijna 400 vrouwen (in

41 groepen) aan het programma deelgenomen, waarvan 90% tijdens alle vijf bijeenkomsten aanwezig was. De eerste groepen zijn gestart in maart 2004 en de laatste groep in februari 2005. In Rotterdam gaven vijf VETC'ers voorlichting aan 28 groepen van gemiddeld negen vrouwen. In Amsterdam waren er drie werkzaam, die voorlichting gaven aan vijf groepen van ongeveer 12 vrouwen en in Den Haag heeft een voorlichtster het project uitgevoerd bij zes groepen van gemiddeld acht vrouwen.

Uit de procesevaluatie komt naar voren dat het merendeel van de betrokkenen, zowel de VETC'ers als de deelnemers, zeer enthousiast zijn over Uma Tori. Zij zijn vooral tevreden over het feit dat zij met anderen in een vertrouwelijke omgeving kunnen praten over onderwerpen die zij zelf mogen aandragen. De vorm slaat goed aan bij de doelgroep. De deelnemers gaven aan vooral veel te hebben geleerd en steun ondervonden van elkaars ervaringen. De evaluatie suggereert tevens dat een goed verloop van het programma afhangt van de voorlichtster en gastvrouw en de samenwerking tussen deze twee vrouwen. Sommigen zijn in staat de hele groep te motiveren en enthousiasmeren om zo een vervolg te geven aan het huidige programma met extra bijeenkomsten. Zij kunnen hun creativiteit kwijt in Uma Tori hetgeen enthousiasme alleen maar vergroot. Voor anderen is voorlichting aan de hand van Uma Tori een hele omslag: niet iedere voorlichtster kan even goed uit de voeten met de flexibele en interactieve vorm van voorlichting geven. Het vergt veel voorbereiding, inzet en inspanning. Aanvullende begeleiding en training is voor hen belangrijk. In Rotterdam is Uma Tori zo goed bevallen dat de GGD heeft besloten door te gaan met Uma Tori. Zij hebben het programma inmiddels uitgebreid en werken met gemengde migranten groepen. In Den Haag is de VETC'er een eigen bureau gestart waar gastvrouwen zich kunnen aanmelden om Uma Tori te kunnen voortzetten.

Uit de evaluatie komt verder naar voren dat in alle groepen veel tijd is besteed aan het creëren van een vertrouwelijke en intieme sfeer, methodieken voor het maken van afspraken m.b.t. de vertrouwelijkheid van de gesprekken en het taalgebruik, alsook voor het stellen en behouden van eigen grenzen. Daarnaast is er binnen Uma Tori uitdrukkelijk de mogelijkheid dat deelnemers zelf onderwerpen aandragen voor de vervolgbijeenkomsten. Evaluatie suggereert echter ook dat de basismethodiek de 'levenslijn' niet even consequent is gebruikt. Veel gebruikte methodieken zijn 1) uitwisselen van eigen ervaringen in groepsdiscussies, 2) methodieken ter kennisverbetering, 3) risicocommunicatie aan de hand van video, 4) bespreken van verschillende onderhandelingsstrategieën en 5) condoomdemonstratie.

Maar heeft de voorlichting ook de gewenste effecten gehad? In hoeverre zijn de vooraf vastgestelde programmadoelen behaald, en leiden deze tot een verminderd risico op SOA/HIV? Ten behoeve van deze evaluatie hebben de deelnemers vóór en ná het project een vragenlijst ingevuld. Met deze vragenlijst zijn o.a. de volgende concepten gemeten: kennis, onderhandelen met partner, gedrag, intentie om veilig te vrijen, seksuele assertiviteit en eigen effectiviteit, sociale norm en sociale steun. De resultaten van de effectevaluatie laten op vrijwel alle concepten een significante verbetering zien. Na de voorlichting is de kennis over SOA/HIV toegenomen. Zij zijn zich meer bewust van SOA/HIV risico's, hebben een positievere houding en meer zelfvertrouwen aangaande 'safer sex en sexual negotiation' gekregen. De effecten van het programma zijn het sterkst bij vrouwen die tijdens de voorlichting een partner hadden en vrouwen met een lagere opleiding. Alleen ervaren de vrouwen niet meer sociale steun na de interventie. Een belangrijk resultaat van het Uma Tori project is de bijdrage tot het doorbreken van het taboe dat rust op seksualiteit. Door de toegenomen assertiviteit van de vrouwen is seksualiteit en veilig vrijen beter bespreekbaar geworden. Vrouwen hebben daarnaast geleerd hun risico op SOA/HIV te analyseren en te onderhandelen over de mogelijkheden om veiliger te vrijen. De programmadoelen van het project zijn dan ook grotendeels bereikt. Ondanks dat er geen duidelijke risicovermindering is aangetoond, heeft de voorlichting de deelnemers de benodigde handvatten gegeven om hun eigen risico op SOA-infectie te verkleinen. Het blijft ten slotte ieders eigen verantwoordelijkheid om zichzelf en hun dierbaren te beschermen tegen SOA/HIV.

Het proefschrift sluit af met een algemene conclusie en discussie. Het project laat zien dat IM zich goed leent voor de ontwikkeling en implementatie van een theoretisch gebaseerd preventieprogramma voor allochtone vrouwen in Nederland. In samenwerking met de doelgroep en intermediairs is een preventieprogramma ontwikkeld en geïmplementeerd dat 1) kennisoverdracht overstijgt, 2) dat een behoorlijk bereik heeft, 3) dat positief is ontvangen door doelgroep en intermediairs, en 4) dat positieve effecten sorteert in opvattingen en overtuigingen aangaande het onderhandelen over en praktiseren van 'safe sex'. Het project suggereert tevens dat de kwaliteit van de implementatie van het programma sterk afhankelijk is van de mogelijkheden en input van de uitvoerende organisaties. Intervention Mapping is een hanteerbare en goede methode om planmatig een interventie te ontwikkelen voor een lastig te bereiken doelgroep. De doelgroep is met het 'tupperwareparty' model goed te bereiken. In de vertrouwelijke sfeer van de

huiskamer voelen de vrouwen zich voldoende veilig om intieme onderwerpen te bespreken. Het wordt door deelnemers in het bijzonder gewaardeerd dat zij zelf onderwerpen kunnen aandragen voor de voorlichtingsbijeenkomsten.

Het gevoel van 'ownership' en grote betrokkenheid van de uitvoerders en ontvangers is zeer belangrijk. Zij moeten vanaf het begin bij de ontwikkeling geraadpleegd worden.

Ook al waren de VETC'ers voorafgaand aan de uitvoering van de interventie enthousiast over de interventie, een goede begeleiding, aanvullende trainingen en intervisie zijn motiverend en cruciaal voor de kwaliteit van de implementatie van de interventie. Voor continuering van Uma Tori is het aanbevelenswaardig gebruik te maken van het huidige enthousiasme onder VETC'ers en doelgroep. Financiering is voor voortzetting van de activiteiten noodzakelijk vereiste.

Alle betrokkenen wijzen op het belang ook mannen te betrekken bij de voorlichting.

Appendix

- Paper 1 BERTENS, M. G. B. C., WOLFERS, M. E. G., VAN DEN BORNE, B., & SCHAALMA, H. P. (2008 in press). Negotiating safe sex among women of Afro-Surinamese and Dutch Antillean descent in the Netherlands. *AIDS Care*.
- Paper 2 BERTENS, M. G. B. C., KRUMEICH, A., SCHAALMA, H. P., & VAN DEN BORNE, B. (2008 in press). Being a woman and feeling like a woman: Respectability, responsibility, desirability and the margins for negotiating safe sex among women of Afro-Surinamese and Dutch Antillean descent in the Netherlands. *Culture, Health and Sexuality*.
- Paper 3 BERTENS, M. G. B. C., SCHAALMA, H., BARTHOLOMEW, L. K., & VAN DEN BORNE, B. (2008 in press). Planned development of culturally sensitive health promotion programs: An Intervention Mapping approach. In P. H. SWANEPOEL & H. HOEKEN (Eds.), *Adapting Health Communication to Cultural Needs: Optimizing Documents in South-African Health Communication on HIV/AIDS Prevention*. Pretoria, Benjamins Publikasie.
- Paper 4 BERTENS, M. G. B. C., EILING, E. M., VAN DEN BORNE, B., & SCHAALMA, H. P. (2008 accepted for publication pending revisions). Uma Tori! Evaluation of an STI/HIV prevention intervention for Afro-Caribbean women in the Netherlands. *Patient Education and Counseling*.

Negotiated safety and condom use among women of Afro-Surinamese and Dutch Antillean descent in the Netherlands

Authors

**Madelief G.B.C. Bertens¹, Mireille E.G. Wolfers²,
Bart van den Borne¹, Herman P. Schaalma³**

1 Maastricht University, Faculty of Health, Medicine and Life Sciences, Department of Health Education and Health Promotion

2 Municipal Public Health Services Rotterdam Area, Department of Infectious Diseases, Rotterdam, the Netherlands

3 Maastricht University, Faculty of Psychology, Department of Work & Social Psychology, Maastricht, the Netherlands

Abstract

Safe sex negotiation and communication about sexual risks with partners is important for women to ensure sexual risk reduction. This paper describes the results of a survey on safer sex and negotiation behavior, and the correlates of negotiation with partners among 128 women from Surinamese and Dutch Antillean descent in the Netherlands. The key findings are that 50% of the participants had negotiated sexual risk reduction with their partner, yet only 40% of the women who negotiated safer sex actually claimed practicing safe sex. Participants defined safe sex with steady partners primarily as negotiated safety and monogamy, and safe sex with casual partners primarily as condom use. Intentions to negotiate safer sex with steady partners were related to positive attitudes and perceived injunctive norms towards safe sex negotiation, and educational background. Intention to discuss safe sex with casual partners were primarily related to attitudes and perceived self-efficacy. STI/HIV prevention interventions targeting these women should incorporate awareness-raising of safety in different types of relationships, deciding on the appropriateness of relationship-specific sexual risk reduction strategies, and building negotiation skills to accomplish the realization of these strategies.

Key words

Safe sex negotiation, correlates of safe sex negotiation, survey, needs assessment, ethnic minority women, casual and steady partners

Ethnic minorities in the Netherlands are at substantial risk of STI/HIV-infection (van de Laar, de Boer et al., 2005). Relatively high HIV prevalence rates, in the range of 1-2%, have been found in people from Surinamese and Dutch Antillean descent (Wiggers et al., 2003), whereas the estimated prevalence among the general Dutch population is 0.2% (van Veen et al., 2005). Sexually transmitted infections (STI) surveillance data showed that of all new cases of chlamydia, gonorrhea and syphilis in 2003, 12%, 21% and 12% respectively were women from the Antilles or Surinam (van der Poel & Hekkink, 2005), representing only 3% of the general Dutch population (Garssen et al., 2005). In addition, the relatively high rates of teenage pregnancy among these women (5 to 9 times the teenage pregnancy rates of Dutch girls) and abortions (7 to 9 times the abortion rates of Dutch women) indicate a high prevalence of unsafe sex (van der Poel & Hekkink, 2005). Several surveys have shown high levels of sexual risk behavior for these migrant groups, especially among men. These behaviors include: inconsistent condom use, high rates of partner change, concurrent relationships, and sexual contacts outside existing steady relationships (Gras et al., 2001; Wiggers et al., 2003).

Gras et al. (2001) suggested that lack of negotiating power of Surinamese and Antillean women might be an important cause of their unsafe sexual behavior. This observation is echoed by various studies showing that communication and negotiation skills are of extreme importance for women to ensure sexual risk reduction (Gomez & VanOss Marín, 1996; St Lawrence et al., 1998; van der Straten et al., 1998; Pulerwitz et al., 2000; Wingood & DiClemente, 2000; Bryan et al., 2002; Lam et al., 2004), and consequently, many interventions promoting safe sex among minority women have focused on building negotiation skills (Mize et al., 2002; Albarracín et al., 2004). Other studies among urban women, however, suggest that many women display a remarkable degree of assertiveness in sexual decision-making (Bird et al., 2001), feel comfortable to discuss safe sex with their partner, and use a variety of effective negotiation strategies (Williams et al., 2001; Lam et al., 2004). This suggests that lack of negotiation skills might not be the most crucial barrier for condom use, but that other personal and interpersonal factors like attitudes, motivation (Malow et al., 2000), self-esteem, self-efficacy (Wingood & DiClemente, 2000), trust and intimacy are more influential in accounting for inconsistent safer sex practices (Margillo & Imahori, 1998; Williams et al., 2001).

This article describes the results of a study on safe sex negotiation and communication among Dutch women of Surinamese and Dutch Antillean descent. In particular, the study addressed the

psychosocial correlates of safe sex negotiation. Up till now, data on correlates of safe sex behavior of women of Surinamese and Dutch Antillean are scarce, and no studies have particularly focused on the correlates of safe sex negotiation and communication. Although safe sex is generally defined as consistent condom use, many studies have shown that consistent condom use is substantially lower in primary, long-term relationships than in new relationships or casual contacts (Misovich et al., 1997; Macaluso et al., 2000; Wiggers et al., 2003). Since the risks of unprotected sex in steady relationships may be very limited, especially if the relationship is long-term and monogamous, one could argue that a strategy of 'negotiated safety'-discarding with condoms within a sero-negative steady relationship as long as safe sex agreements are negotiated to cover sexual behavior outside the steady relationship- would be a more adequate risk reduction strategy than condom use (Kippax & Race, 2003). For this strategy to be effective, partners need to discuss and negotiate sexual safety based on monogamy -refraining from sexual activity outside the steady relationship-, and safe sex - implying condom use with other partners- make agreements and commit to these agreements.

Methods

Participants and sampling procedure

The priority population consisted of 128 women, between the ages of 17 and 60, identifying themselves as Afro-Surinamese and/or Dutch Antillean. In the period November 2002- February 2003 women were recruited by convenience sampling in the regions of Amsterdam and Rotterdam, with the highest concentrations of these ethnic minority populations in the Netherlands. Self-administered anonymous questionnaires were distributed through minority organizations, municipal health centers, health clinics, community centers and at activities aimed at the priority population. After signing an informed consent form, the participants were asked to complete the questionnaire, which took approximately 20 minutes. Participants could contend for a travelers check worth 250€.

Measures

The questionnaires included several items addressing socio-demographic variables, such as age, ethnic origin, and year of migration, educational level, employment status, marital status and religion. We defined ethnic background on the basis of participants' place of birth and place of birth of their parents. Participants were classified as first generation migrant when they were born in the country of origin and as second-generation migrant when they were born in the Netherlands and had

at least one parent born in the country of origin. Participants were queried about their *relational status* and *sexual behavior*, such as the number of casual and steady sex partners in the 6 months preceding the study and cultural background of their partners. We defined a casual partner as a partner with whom the participant incidentally had sexual intercourse. Participants were asked whether they practiced safe sex (always, sometimes, never) with their steady and casual partners and what safe sex meant to them (condom use, no sex outside the relationship, condom use with sexual encounters outside relationship, careful partner choice).

Safe sex negotiation, intentions and correlates:

We used the integrative model of behavioral prediction to examine the correlates of safe sex negotiation (Fishbein, 2000). The participants were asked whether they had communicated about safe sex with their steady and casual partners, and if and how they had reached agreements about safe sex. Participants were further questioned on their attitudes, perceived self-efficacy and social influences concerning safe sex negotiation. Unless mentioned otherwise, Likert-scaled items were used (ranging from 1 to 5). All correlates were assessed for steady and casual partners separately.

Attitudes towards negotiating safe sex were assessed by means of four items (good/bad, pleasant/unpleasant, sensible/unwise, necessary/unnecessary) addressing communication with a steady partner ($\alpha = .79$) and with a casual partner ($\alpha = .79$).

The *injunctive social* norm for negotiating with a steady partner was assessed by means of three items regarding normative beliefs of the partner, best friends, and important others. Each item was weighted by the motivation to comply. This scale was reliable at $\alpha = .76$. The injunctive social norm for negotiating with casual partners was measured using two items regarding beliefs of friends and important others, each weighted by the motivation to comply. The inter-item correlation was $r = .79$. The descriptive social norms regarding negotiating safe sex with steady and casual partners were assessed with two single items ("My best friends negotiate safe sex with their causal/steady partners").

Self-efficacy regarding negotiating safe sex with steady partners and casual partners was assessed with single items ("If I wanted to, I would be able to discuss safe sex with my steady/casual partner and come to an agreement").

The dependent variable central in this study is Intentions to negotiate sexual risk reduction with either steady partners or casual partners, which were assessed by means of two items each: "Are you planning to negotiate safer sex?" and "Chances are I will negotiate safe sex"; inter-item correlations were $r = .49$ for negotiation with steady partners and $r = .63$ for negotiation with casual partners.

Table 1 Demographic description of the study group (N = 128)

	% (N)	(mean ± SD) range
Age	17 - 59	28.6 (± 8.7)
15-27 years of age	52% (66)	
28-60 years of age	48% (61)	
Ethnicity		
Surinamese	64.1% (82)	
Antillean	35.9% (46)	
Place of birth		
Surinam	39.8% (51)	
Dutch Antilles/Aruba	32% (41)	
Netherlands	28.1% (36)	
Migration history		
First generation	71.9% (92)	
Second generation	28.1% (36)	
Length of migration (years)		12.5 (± 8.8) 0 - 40
Education		
Lower educated	56.7% (72)	
Higher educated	43% (55)	
No/primary education	4.7% (6)	
Preparatory vocational education and training	6.3% (8)	
(Senior) secondary vocational education and training	45.3% (58)	
Higher general secondary education	10.9% (14)	
Bachelor/Master degree	30.5% (39)	
Unknown	2.4% (3)	
Employment status		
Employed	58.6% (75)	
Student	16.4% (20)	
Housekeeper	13.3% (17)	
Unemployed/incapacitated	10.1% (13)	
Pensioned	.8% (1)	
Unknown	1.6% (2)	

Religious affiliation		
Roman Catholic	50% (64)	
Christian (Pentecostal, Evangelical, Jehovah witness)	25.8% (33)	
None	13.2% (17)	
Other (Muslim, Hindu, other)	7.1% (9)	
Unknown	3.9% (5)	
Marital status		
Single	45.3% (58)	
Living-apart-together	28.9% (37)	
Married/cohabiting	20.3% (26)	
Divorced	3.9% (5)	
Widowed	1.6% (2)	
Number of sexual partners (last 6 months)		1.1 (± .9) 0 - 8
Type of relationships (last 6 months)		
None	23.4% (30)	
Steady partner(s)	60.2% (77)	
Casual partner(s)	7.9% (10)	
Steady and casual partner(s)	5.5% (7)	
Length of steady relationship (months)		52.1 (± 45.9) 2 - 198
Ethnicity of partner(s)		
Surinamese	43.2% (38)	
Dutch Antillean	28.4% (25)	
Dutch	18.2% (16)	
Other migrant	10.2% (9)	
Children		
Children with current partner	27.3% (24)	
Single parents	29.1% (37)	

Table 2. Pearson correlation matrix of correlates for safe sex negotiation with steady and casual partners (N = 128)^a

	1	2	3	4	5
1. Attitude		.446***	.392***	.648***	.638***
2. Descriptive social norm	.321***		.647***	.463***	.382***
3. Injunctive social norm	.510***	.600***		.350***	.402***
4. Self-efficacy	.254**	.232**	.372***		.569***
5. Intention to negotiate	.499***	.267**	.520***	.330***	.194*

a Numbers above diagonal are for casual partners and below diagonal are for steady partners

* $p < .05$, ** $p < .01$, *** $p < .0001$

Table 3. Univariate analyses of predictors of safe sex negotiation with steady partners (N = 89)^a

	Negotiating safe sex with steady partner		<i>F</i> (1,88)	<i>p</i>
	Yes	No		
Attitude	6.55 ± 1.73	4.44 ± 2.54	20.74	.000
Injunctive social norm	14.18 ± 8.25	8.73 ± 8.27	9.69	.003
Descriptive social norm	.86 ± .82	.51 ± .94	3.52	.060
Self-efficacy	1.84 ± .43	1.58 ± .78	3.84	.053

a Only women in a steady relationship who had negotiated safe sex were included in this analysis.

Results

Data analysis

In comparing different subgroups on safe sex and negotiation behavior cross tabulations with chi-square tests were performed. To identify correlates of safe sex negotiation hierarchical multiple regression analyses and an analysis of variance were applied.

A total of 128 women was included in this study. Table 1. depicts the demographic description of the study group.

Relationship and partner characteristics

Participants reported an average of 1.1 sexual partners in the six months prior to the study ($SD = 0.92$; range 1-8). About a quarter of the participants (23.0%) reported no partner. Ninety-one women (71.1%) indicated that they had one or more steady relationships in the six months preceding the study). Seventeen women (13.3%) reported having had at least one casual sex partner in the 6 month preceding the study. Of the women, 70.5% indicated that their sex partners had a Dutch Caribbean background; 18.8% of the partners were Dutch.

Safe sex and negotiation behavior

Of the sexually active women ($N = 103$), 40.9% reported to practice safe sex. Safe sex practice was not related to ethnicity or immigration history, ethnic background of partner, or type of the relationship. There was a difference in safe sex behavior between the age groups; 53.2% of the women younger than 27 years of age reported practicing safe sex, compared to 28.6% of their older counterparts; $\chi^2(1, 89) = 5.535, p < 0.05$.

Half of the women with one or more partners in the 6 months preceding the study claimed negotiating safe sex and making agreements with their partners. Women with Dutch Caribbean partners were more likely to have negotiated safe sex than women who had a partner with a different ethnic background (respectively 56.7% and 26.9%); $\chi^2(2, 86) = 6.433, p < 0.05$. Women who reported negotiating safe sex with their partner, more often reported to practice safe sex than women who did not report negotiation; $\chi^2(1, 89) = 4.155, p < 0.05$. However, women's definition of safe sex was related to type of relationship. Women who claimed to practice safe sex with their steady partner defined safe sex predominantly as "having no sex outside the relationship" or as consistent condom use. All women who claimed to practice safe sex with a casual partner defined safe sex as consistent condom use.

Table 4. Regression Analysis method enter (Block 1 psychosocial correlates, Block 2 Demographic variables) intention to negotiate with steady partner and with casual partners

	for Steady partners (N = 78) ^a					
	B	SE B	β	R ²	ΔR ²	p ^b
Block 1				.47	.47***	
Attitude	.17	.07	.27**			
Injunctive norm	.09	.02	.53***			
Descriptive norm	-.18	.17	-.12			
Self-efficacy	.22	.18	.11			
Block 2				.56	.10*	
Attitude	.18	.06	.29**			.007
Injunctive norm	.09	.02	.52***			.000
Descriptive norm	-.26	.17	-.17			
Self-efficacy	.23	.18	.12			
Age ^c	-.96	.42	-.29*			n.s.
Motherhood ^d	.60	.31	.20			
Ethnicity ^e	.06	.29	.02			
Partner background ^f	-.04	.36	-.01			
Education ^g	-.70	.30	-.23*			.008
Migrant generation ^h	-.03	.29	-.01			

for Casual partners (N = 128)					
B	SE B	β	R ²	ΔR^2	p^b
			.47	.47***	
.28	.06	.42***			
.06	.03	.18			
-.09	.21	-.04			
.52	.18	.25**			
			.49	.02	
.28	.06	.42***			.000
.06	.03	.16			
-.09	.22	-.04			
.56	.19	.27**			.003
-.32	.35	-.07			
.27	.37	.06			
.36	.32	.08			
-.22	.38	-.04			
.281	.31	.06			
.53	.35	.11			

Note $R^2 = .50$ ($p < .001$) for final model steady partners;

Note $R^2 = .45$ ($p < .001$) for final model casual partners

a Only respondents who had not yet negotiated safe sex

b Exact p-values for final model

c Younger than 27 years of age / older than 27 years of age

d Being a mother / not being a mother

e Surinamese / Dutch Antillean

f Partner with a Dutch background / partner with a Caribbean background

g Lower education / higher education

h First-generation / second-generation

* $p < .05$; ** $p < .01$; *** $p < .001$

Correlates of negotiating safe sex

Table 2. shows the correlations of the intention to negotiate safe sex and related correlates for both steady and casual partners.

All correlations were statistically significant. Intention to negotiate with a steady partner was, though weak, positively related to intention to negotiate safe sex with casual partners, $r(128) = .194, p < .05$.

Hierarchical multiple regression was employed to explore the correlates of intention to negotiate safe sex (see Table 4.). The regression of intention to negotiate safe sex with a steady partner was based on the data of participants who had not yet negotiated safe sex with their steady partner, and participants without a steady relationship ($N = 78$). The regression of the intention to negotiate safe sex with a casual partner was based upon the total sample ($N = 128$). First, we entered the psychosocial correlates in the regression equation; subsequently, we entered demographic variables while controlling for psychosocial correlates. All demographic variables were dichotomised. Finally, we ran a regression with only the significant predictor correlates.

These analyses revealed that the intention to negotiate safe sex with a steady partner was primarily associated with positive attitudes toward negotiating safe sex, higher injunctive social norms and a low educational level. Together, these correlates accounted for 50% of the variance in intention. Intentions to negotiate safe sex with a casual partner, conversely, were associated with higher injunctive social norms and higher self-efficacy. Together, these correlates accounted for 45% of the variance in intentions.

To further explore the correlates of safe sex negotiation, we analyzed the differences between women who reported to have negotiated safe sex with their steady partner and women who reported that they had not. Analysis of variance conducted on attitudes, perceived injunctive norms, descriptive norms and self-efficacy showed that women who had negotiated safe sex with their steady partner reported more positive attitudes and a more positive injunctive norm (see Table 3.).

Discussion

This study clearly indicates that the prevalence of safe sex among Dutch women of Afro-Surinamese and Dutch Antillean descent is rather low, and that negotiating safe sex is an important correlate of safe sex practice. About 40% of the women in our sample conveyed practicing safe sex with their partners, whether they were steady or casual. About half of the

women reported having negotiated safe sex with their partner and safe sex negotiation was positively associated to practicing safe sex. Our study further demonstrates that women's definition of safe sex was related to type of relationship. Whereas safe sex with a steady partner was predominantly defined as "having no sex outside the relationship" or as consistent condom use, all women who claimed to practice safe sex with a casual partner defined safe sex as consistent condom use. Consequently, safe sex negotiation with steady partners involved discussing monogamy and negotiated safety whereas discussing safe sex options with casual partners signified condom use, and the correlates of intentions to negotiate safe sex differed between steady (attitudes and injunctive norms) and casual relationships (attitudes and self-efficacy).

Generally these findings are in line with the results of other studies among migrant women populations. Several studies reported low levels of condom use, especially within steady relationships (Misovich et al., 1997; Macaluso et al., 2000; de Visser & Smith, 2001; Wiggers et al., 2003) and a positive association between safe sex negotiation and safe sex practice (Quina et al., 2000; de Visser & Smith, 2001). None of these studies, however, provided insight into the correlates of safe sex negotiation.

If negotiation is important for sexual risk reduction, interventions that promote negotiation may benefit from understanding the correlates of negotiation. Our study revealed that negotiation with a steady partner is primarily associated with positive attitudes and higher perceived injunctive social norms.

Negotiation with casual partners seems primarily related to positive attitudes and higher self-efficacy. The latter is in accordance with the results of other studies showing that individuals with greater self-efficacy were more likely to initiate negotiation of safe sex, meaning condom use, and were more likely to persist (de Visser & Smith, 2001).

In our study many women in a steady relationship described themselves as behaving safely based on an agreement of monogamy. However, perceptions and expectations regarding monogamy, trust, love, and intimacy among partners do not necessarily guarantee safety (Davidovich et al., 2000). Furthermore, the fidelity of partners is often questionable. Whereas studies show that compliance with negotiated safety is high among men who have sex with men (Crawford, Rodden et al., 2001), studies of heterosexual sexual contacts question the perceived safety in steady or primary relationships (Kippax et al., 1997; Misovich et al., 1997). Some authors have therefore redefined negotiated safety as 'negotiated danger' (Ekstrand,

Stall et al., 1993). Although negotiated safety never guarantees risk-free sexual practice, our study suggests that safe sex negotiation within steady relationships will result in negotiated safety rather than condom use. Alternatively, one may argue that the women of our sample in long-term partnerships who reported to be unsafe might actually be running very low to no risk. Namely, the participants were first asked to answer if they thought they practiced safe sex. If so, they were asked what this meant to them. Since women who claimed to practice unsafe sex were not queried on their definition of safe sex, it may be possible that this group includes women that practice 'unsafe sex' in a long-lasting monogamous relationship that is actually free of risk.

Our study supported the finding that younger women were more likely to practice safe sex than older women (Wiggers et al., 2003). This might be due to the fact that most of the young participants in our study were second-generation migrants that grew up in a society open towards sexuality. Alternatively, the difference between younger and older participants can be attributed to relationship status. Older participants were more likely to be in long-term monogamous relationships, and inherently less likely to practice safe sex.

Our study shows that the intention to negotiate with their steady partner of lower educated women is higher; however there is no difference in reported behavior of negotiation or safe sex or any differences on the negotiation correlates.

Although our study provides valuable insight for the development of STI/HIV prevention interventions for women of Surinamese and Dutch Antillean descent, the results have to be interpreted with some caution. First of all, the results of our study are based on a relatively small sample and our sampling procedure may have caused selection bias. Although our sample seems fairly demographically representative for the larger population of Surinamese and Dutch Antillean women in the Netherlands (van der Poel & Hekkink, 2005), it might not be representative regarding sexual communication. Therefore, we need to be cautious in generalizing the results from this study to the total Surinamese and Antillean population. Given the fact that sexuality is still considered a taboo in these populations, many of our participants were rather positive about negotiating safe sex, perhaps an indication of social desirability. Consequently, caution is needed regarding the interpretations of absolute scores. Second, with respect to the limited number of women with casual partners, we may postulate that very few participants have experience with casual contacts. Hence, they may not yet have formed clear personal beliefs regarding

discussing safe sex strategies with casual partners. The results on the correlates of intention to discuss safe sex with casual partners might portray more general instead of personal beliefs. A third and perhaps more serious limitation of our study is that it only portrays the views of women; it would be interesting to study the perspectives of their male partners and also their behavior. A last limitation refers to cross-sectional design of our study. Future research should study sexual behavior and safe sex negotiation behavior in a longitudinal perspective. If safe sex negotiation indeed contributes to safe sex practice, it would be interesting to know which negotiation strategies are employed and which strategies are most successful.

Despite these limitations we may conclude that unprotected sex is prevalent among women with Surinamese and Dutch Antillean descent in the Netherlands. We further can conclude that safe sex has different connotations depending on the stability of the relationship, and that discussing and negotiating safe sex has a positive effect on safe sex practices. These findings are important for the design of future interventions. Since negotiated safety is the most realistic safe sex option for women in long-term sexual relationships, future interventions should focus on improving the effectiveness of negotiating safety. Considering the role of injunctive social norms, involving the social network of women might be an appropriate intervention strategy. When designing an intervention for this population, health promoters should acknowledge that Surinamese and Dutch Antillean women tend to label most sexual relationships as steady. Therefore interventions should focus on making women aware of how steady they perceive their relationships in combination with the appropriate risk-reduction strategies.

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Being a woman and feeling like a woman: Respectability, responsibility, desirability and the margins for negotiating safe sex among women of Afro-Surinamese and Dutch Antillean descent in the Netherlands

Authors

Madelief G.B.C. Bertens¹, Anja Krumeich², Bart van den Borne¹, Herman P. Schaalma³

1 Maastricht University, Faculty of Health, Medicine, and Life Sciences, Department of Health Education and Health Promotion

2 Maastricht University, Faculty of Health, Medicine, and Life Sciences, Department of Health, Ethics, and Society

3 Maastricht University, Faculty of Psychology

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Abstract

The objective of this study was to describe and understand gender roles and the relational context of sexual decision-making and safe sex negotiation of Afro-Surinamese and Dutch Antillean women in the Netherlands. Twenty eight individual in-depth interviews and eight focus group discussions were conducted.

In negotiating safe sex with a partner, women reported encountering ambiguity between being respectable and being responsible. Their independence, autonomy, authority and pride inherent to the matrifocal household give them ample opportunity to negotiate safe sex and power to stand firm in executing their decisions. The need to be respectable burdens negotiation practices, because as respectable, virtuous women there would not be the need to use condoms. Respectable women will only participate in serious monogamous relationships which are inherently safe. Women's desire to feel like a woman, 'to tame the macho-man' and constrain him into a steady relationship, limits negotiation space because of emotional dependency. 'Respectability' seems to enforce to not question men's sexual infidelity.

In developing STI/HIV prevention programs this ambiguity due to cultural values related to gender roles should be considered. Raising awareness of power differences and conflicting roles and values, may support women in safe sex decision-making.

Keywords

Gender, sexual negotiation, matrifocality, ethnic minority women, Netherlands

Recent surveillance data indicate a relatively high prevalence and incidence of HIV and other sexually transmitted infections (STI) among migrant populations in the Netherlands, in particular among women of Dutch Antillean and Afro-Surinamese descent (RIVM, 2006). In addition, relatively high rates of teenage pregnancies and abortions particularly, indicate a high prevalence of unsafe sex among such women (Garssen et al., 2005), with relatively high numbers of sexual partners, concurrent partnerships, and inconsistent condom use (Gras et al., 2001; Wiggers et al., 2003; RIVM, 2006).

Health promotion and prevention programs – and, as such, also HIV prevention programs – are most likely to be effective when their objectives suit the social environment of priority populations and when intervention strategies match the cultural contexts and social reality of these populations (Resnicow et al., 1999; Kreuter et al., 2003; Kreuter & McClure, 2004). Therefore, it is important to understand the underlying cultural values influencing sexual risk behavior within these populations.

To date, we have a rather limited understanding of sexual decision-making within the socio-cultural context among women of Dutch Antillean and Afro-Surinamese descent. Literature reviews indicate that safe sex decision-making and safe sex negotiation and communication are embedded in a complex social-cultural and personal context (see, for example, Foreman, 2003; Bertens, Schaalma et al., 2004; Kelly, Amirkhanian et al., 2004; Dworkin et al., 2007; Jarama et al., 2007). More generally, perceived gender roles and gender-based inequalities lead to male control over various decision-making areas, including sexuality (Gomez et al., 1999; Amaro & Raj, 2000; Bowleg et al., 2000; Wingood & DiClemente, 2000; Kelly, Amirkhanian et al., 2004; Jarama et al., 2007). Gender roles are rooted in socially and culturally constructed notions of masculinity and femininity allocated to social roles, behaviors and meanings prescribed for men and women (Kimmel, 2001). Cultural constructs of femininity and masculinity are intertwined with other social dimensions, like the division of labor within the household and family and power inequalities within relationships. Understanding the cultural and social structures of gender may therefore enhance our comprehension of how gender-based inequalities affect individual relationships and sexual decision making (Wingood & DiClemente, 2000).

Literature reviews indicate that most societies maintain a double standard of sexual morality, where men are dominant and

sexually active. Sex is perceived as a conquest and the number of partners is an indicator of manliness. Women, on the other hand, should be sexually passive and submissive (e.g. Amaro & Raj, 2000; Bajos & Marquet, 2000; Pulerwitz et al., 2002). This double sexual standard limits the opportunities for women to discuss sexuality and negotiate safe sex. Although some authors have given a more positive view of a macho as a protective and caring person (e.g. Lundgren, 1999; Terborg, 2002), a study among Dutch Antillean men and women suggested that the double standard and macho attitudes and behavior may indeed restrict the possibilities for women to practice safe sex (Kocken, van Dorst et al., 2006). These gender roles and power inequalities can be observed in the division of power within the economic structure and composition of the household. In contrast to the previously mentioned studies, some other studies portray women in matrifocal households as autonomous and authoritative (Prior, 2005; Quinlan, 2006). Matrifocality - a term referring to 'a property of kinship systems where the complex of affective ties among mother and children assumes a structural prominence because of the diminution (but not disappearance) of male authority in domestic relations' (Smith, 2001) -, has been used to describe the structures of African-American and African-Caribbean households and may also be applied to the Afro-Surinamese and Dutch Antillean household. Women, in their central and authoritative roles as mothers, wage earners, providers and guardians, are relatively independent and make key decisions regarding the family. The bond between mothers and their children, especially their daughters, forms the core of stable family relations (Quinlan, 2006). Fathers generally have a marginal role in the family and the bond between spouses is usually rather unstable (Prior, 2005; Distelbrink, 2006). As a result, Caribbean women are frequently portrayed as independent, autonomous, mercenary, manipulative and dominating; whereas men are described as unreliable and unfaithful (Freeman, 2005). This seems to contradict the general assumption that women are incapable of and lack opportunities to negotiate safe sex with their partners.

Our study ensued from this contradiction found in the literature. We intended to analyse whether the cultural background of Caribbean women in the Netherlands would prohibit or encourage women to discuss matters concerning sexuality with their partner. In this paper, we describe the results of formative research aimed at uncovering and understanding interacting structures of power and margins to negotiate safe sex within relationships and the matrifocal household structure to ultimately develop a cultural sensitive prevention program.

We conducted a qualitative exploratory study in Dutch cities with relatively high concentrations of immigrants of Afro-Surinamese and Dutch Antillean descent. Approval for the study was obtained from the Ethical Committee Psychology (ECP), Maastricht University, the Netherlands. Data collection, using in-depth interviews and focus group discussions (FGD), took place between April 2002 and June 2003.

Sample and recruitment

Recruitment criteria for study participation included being female of Afro-Surinamese and/or Dutch Antillean descent, being 17 years of age or older and being able to understand and speak the Dutch language. Women were recruited using convenience and chain referral sampling. To ensure representation of a wide variety of Dutch Caribbean women with different socio-economic backgrounds, the interviewers approached women at different locations: e.g. at community and health centers and childcare centers, during a vaccination campaign and activities aimed at the priority population and selected women on difference in social economic status, educational level, employment status, duration of stay in the Netherlands (Browne & Russell, 2003).

Twenty-eight interviews were conducted in the cities of Rotterdam, Amsterdam, The Hague, Utrecht, Maastricht and Nijmegen; 14 with Afro-Surinamese women and 14 with women of Dutch Antillean descent. The preliminary results of the in-depth interviews were discussed in additional FGDs; four Afro-Surinamese and four Dutch Antillean groups, averaging six women per group ($N = 48$). Four Afro-Surinamese and two Dutch Antillean women who participated in individual interviews also participated in a FGD. The interviewers were all native Dutch women.

Sample characteristics

A total of 34 women of Afro-Surinamese descent and 36 women of Dutch Antillean descent were included in this study. The mean age of the interviewees was 27.3 years, ranging between 19 and 47 years of age. Most of the women (70%) lived independently. The period of residency in the Netherlands ranged from 6 months to 29 years; most participants were first generation migrants. On average the Afro-Surinamese had lived in the Netherlands for a longer period (15 years) and had immigrated at an earlier age (14 years) compared to the Dutch Antilleans (10 years and 19 years). About 65% of the participants had (senior) vocational education and training, and a third was still attending

senior or higher education. The unemployment figure for the Dutch Antillean study sample was higher than the figure for Afro-Surinamese women; respectively 21% and 7%.

Procedure

Interviewers were trained at Maastricht University and all were women of Dutch origin. Data were collected via individual in-depth interviews and FGDs until saturation was reached. Potential participants received written and oral information about the study and about measures for anonymity and confidentiality. Each participant was given a pseudonym. They were informed about the benefits of participation, that involvement was voluntary, that they could refuse to answer any question, and that they could cease participation at any time without penalty. Subsequently, they were asked to sign informed consent. Agreement was obtained about recording the interviews and FGDs. Interviews, transcripts and coding were done by the interviewers and the first author. The participants chose the location for the interviews. Most interviews were conducted in the homes of the women. The focus groups were all conducted in community or health centers.

The interviews lasted 1.5 - 3 hours. The participants received a 10€ gift certificate for an interview and 5€ gift certificate for partaking in a FGD.

Interview topics

Semi-structured, open-ended questions were used to elicit the women's experiences. The women were encouraged to speak candidly about their past and current relationships. Although most women eagerly discussed their relationships and feelings regarding contemporary dating, reflective (e.g. "Looking back at your first sexual relationship, would you reconsider the value attached to that relationship?") and probing questions (e.g. "Could you give an explanation of what you consider a steady relationship?") were used to encourage participants to elaborate on life experiences (Foreman, 2003). The interviewers used a short topic list to make sure all relevant issues were covered during the interview.

After initial small talk, each interview started with a general question 'Can you tell me a little about your current relationship?' 'Grand tour' questions such as these allow for a broad contextual initiation of ethnographic interviews (Spradley, 1980). The interviews further addressed relational aspects, household structure, relationships, gender-based inequalities, sexual decision-making, gender roles, femininity and masculinity, and dependency in relation to safe sex practices.

Focus group discussions (FGDs) were semi-structured using a topic guide. Other techniques were brainstorming on certain topics (e.g. "What comes to mind when talking about gender, relationship, safe sex, negotiation about condom use?") and discussion of fictitious cases.

Data Processing and Analysis

All interviews were tape-recorded and transcribed verbatim. In processing and analysis QSR Nvivo 2.0 was used. The grounded theory approach (Glaser, 2002) was utilized by doing a line-by-line analysis of the interview transcripts and identifying emerging themes. In the analysis important information exclusive to particular participants and information relevant to all participants was discerned from the texts using a combination of within-case and across-case analysis (Ayres et al., 2003).

In the first phase of within-case analysis, each interview was thoroughly read and divided into text fragments. These fragments yielded categories or nodes, which were attributed to the fragments. Also broad categories based on the research topics were identified. In the second phase of the coding process, the broad categories were subdivided into smaller segments and coded accordingly, resulting in a tree structure of important nodes. The tree structure and nodes were then compared among the researchers. Within-case analysis was used to identify key elements or themes, which were then compared across cases to identify commonalities.

Results

In order to understand the interaction between Caribbean men and women, we focused on the division of labor within the realm of family life and we analyzed what perceptions of femininity underlie this division. We then investigated how power relations between men and women influence safe sex decision making and negotiation.

The women all seemed proud, assertive, strong-willed and independent. On the other hand, regarding practicing safe sex and discussing these issues with their partners, they exhibited certain vulnerability. In exploring perceptions of their femininity they summarized that what being a woman meant to them was: *'To be a woman is to be a mother, and to feel like a woman is to be admired, to look-good, and to receive male attention'* (FGD 3, Afro-Surinamese women, 22-28 years old, second generation)⁷. They identified two different, somewhat conflicting social positions.

⁷ The interviews were conducted in Dutch. For the purpose of this paper, all quotes were translated to English as literally as possible.

On the one hand they wanted to be independent, responsible, respectable, and capable of providing for the family: the Mother Role. On the other hand, they wanted to be desired, loved, taken care of and be sexy. Male attention confirmed their desirability and made them 'feel like a woman'. These two aspects of femininity were further explored in terms of how these limited or enhanced sexual communication and safe sex decision making and negotiation with their partners.

Being a woman: responsibility and respectability

The interviews indicated that two values were at the core of the perceptions of being a woman: respectability and responsibility. These two values complement each other, but also collide in some ways. The women felt capable of decision-making. They indicated that they always could rely on themselves and their female networks. Responsibility, closely related to matrifocality and motherhood, encourages women to be assertive. However, assertiveness is limited by the ideal of being respectable.

The core value of being a woman, *responsibility*, is related to the matrifocal household and - closely linked to it - motherhood. Our interviews clearly demonstrated that Caribbean matrifocal household structure is preserved in the Netherlands. The women expressed that matrimony is not the only mode of living: *'They don't need a man, [you] can be single mother, you can have a LAT-relationship [i.e. living-apart-together] and you can have a friend somewhere, but it doesn't have to live under one roof. As long as you have a man in the house, then it's: "you are not allowed to do this or that! And you should so and so". So women say something like: "No, I have a relation, but you in your house and me in my house". Today all men have a house, and women have a house. So they see each other. "At yours or at my place"'* (Cynthia, Dutch Antillean woman, 43 years old, 19 years of residence, single mother, 2 children).

The main feature of matrifocality is a female-headed household, mostly composed of a woman and her children⁸. All participants revealed that they were raised by their mothers

with core values of obedience, discipline and respect. They had been told to be independent and self-supporting, and education was highly valued because a certificate or diploma was regarded to guarantee (financial) independence: *'A diploma is your first husband'* (general Afro-Surinamese proverb used by

8 Three-quarters of our sample were mothers; half of the Antillean women and a third of the Surinamese women were single parents. Of the Surinamese participants with steady partners, 24% were married, 41% were cohabiting, and 35% were in visiting relationships. Of the Antillean participants with a steady partner, 47% were married and 53% were in a visiting relationship.

most participants). Maturity means being independent by having your own income and running your own household with children. *'As a woman you want to be able to take care of yourself and not be dependent on no one'* (FGD 3, Afro-Surinamese women, 22-28 years old, second generation migrants).

Interviews revealed that women kept their independence by working outdoors and paying the bills; most of them are the sole providers for their children. As caregivers and caretakers they are autonomous and accountable for their own and their children's well-being. And even if a woman cohabits with a partner, she keeps her own income and has her own bank account. Furthermore, she tries to control all facets of the household and housekeeping. Usually the house lease or mortgage is in the woman's name even if she cohabits with a male partner.

The need for independence and responsibility is associated with the notion of motherhood. Responsibility has everything to do with being a 'good' mother. The participants saw the household and upbringing of their children as their responsibility: *'Boys learn to find a good job and generate a family, right? Women [are] to care for the family'* (FGD4, Afro-Surinamese women, 22-28 years old). *'In principal the upbringing comes down to the woman. They say: they are my children, they come from my belly 'mi biri''* (Evelyn, Afro-Surinamese woman, 22 years old, second generation, no children).

Raising and providing for her children, running a household by herself, makes a woman feel proud. In matrifocal households, the significant relations are those between a mother and her children. Having children and grandchildren gives a woman social status. Becoming a mother was represented as an important visible step towards maturity, taking responsibilities and is a confirmation of being a woman. Having children is not linked to marriage or a relationship, but more to being an adult and being independent.

'Because I think that once we have children, that we often don't need men anymore [laughter]. Often, at a certain time, we don't tolerate certain things... then, I think,... that an Antillean woman differs from a Dutch woman in that aspect ... That she will give up sooner. Look, we don't often think, we stay with a man because of a child. We give HIM up a lot faster.' (Maureen, Dutch Antillean woman, 33 years old, 15 years of residency, single, foster child).

Since motherhood is an important aspect of womanhood and since women are quite independent, women stated that they controlled and made the decisions concerning family matters

and regarded family planning and contraceptives as their responsibility. They decided on issues regarding pregnancy, having children or preventing pregnancy. Practicing safe sex was considered a responsible act, especially when they considered their children's well-being. Without exception, the women associated safe sex with prevention of sexually transmitted diseases, and using a condom during intercourse was generally regarded as the best safe sex strategy.

Their independence within the matrifocal household gives women opportunities to speak up, discuss and demand safe sex and grants them power for sexual decision-making. Indeed, women stated that they encountered no problems in asserting their decisions, including decisions about safe sex. *'No condom?! There's the door'* (FGD2, Afro-Surinamese women, 24-47 years old, first and second generation migrants). Furthermore most women indicated that they could rely on a social network made up usually of female relatives, for social support and female solidarity. Social networks facilitate maintaining female-headed households and create opportunities for women. Within these female social networks important issues are discussed, and advice is given. In times of need, children are accommodated and live temporarily with an 'auntie', whether blood-related or not.

Though most women acknowledged that they should practice safe sex for preventive reasons, their main motive to practice safe sex is to prevent unwanted pregnancies. The women's overall attitude towards condoms was quite positive. Although 'Double Dutch' - using both condoms and contraceptives - is claimed to be the best strategy, only a few women actually declared using double protection. Whereas family planning and contraceptives were the responsibility of women, condoms were assumed to be the responsibility of men.

The other core value, aside from responsibility, to being a woman is respectability. According to participants, the features of portraying this ideal were physical presentation, a virtuous reputation, based on politeness, ability to cooperate, reliability and being free of scandal. Physical appearance, including sexual decency, assisted in displaying respectability.

Even though many women claimed to feel indifferent to what others think, they mentioned that they continuously bear in mind their reputation, for if they were to get a 'bad name' this would harm their family, next of kin and future chances of finding a boyfriend. Female social networks monitor this reputation and respectability. The downside of these social networks, as participants complained, was social control and gossip.

Physical presentation is one way to keep up appearances and gain respect. Cleanliness and a tidy and orderly presentation were mentioned as central values; vanity and elegance as well-appreciated qualities. A well-groomed appearance is essential - straightened, ironed hair, or intricate hairdos, plenty of jewelry and spotless, eye-catching outfits. The looks of the children reflect on the mother, therefore women take great care to groom their children well.

It is very important for these women to maintain their respectability despite of their sexual activities. They regarded sex as an expression of intimacy and an ultimate statement of love for the other. In their view, promiscuity is not acceptable for women: having many sexual relations could undermine the reputation of being a respectable woman. *'You don't start a relationship... at least I don't ... to just briefly... for the adventure, sex etc. If I start a relationship, then I see it hopeful for the future'* (Maureen, Dutch Antillean woman, 33 years, 15 years of residency, single, foster child).

Sexual acts out of lust are seen as indecent, easily turning a woman into an object of gossip and loose her respectability. A monogamous long-term relation, preferably marriage is the most respectable type of relationship. Engaging in sexual contacts is accepted in a steady, serious and sincere relationship, and many women said they will only sleep with a man who is or will be a serious steady partner. *'Because yeah, you start a relationship with someone to finally stay with that person.'* (Cynthia, Dutch Antillean woman, 30 years, single mother, 2 children). According to participants, great care is taken in choosing a partner. Therefore it is not surprising that many women claimed that their sexual partners were steady partners, even if they had only briefly met.

Women are careful in their choice of whom they are seen with in public; they try to be discrete about their sexual activities. Sexuality was not considered a decent topic for conversation. Communicating about sexually related topics was generally considered to be taboo among the Dutch Antillean and Afro-Surinamese participants. If sexuality was discussed at all, it was among peers and usually in symbolic terms using proverbs. In Surinam and the Netherlands Antilles, children and young people generally do not receive sexual education from their parents. Usually girls are warned about boys when they menstruate for the first time: *'now that you're a woman, beware of boys, don't let them stick their finger in your eye'* (FGD4, Afro-Surinamese women, 21-30 years old, second generation).

Margins for negotiation and communication about sexuality are relatively small due to the social norms regarding sexuality as an indecent topic. Furthermore, sexual activity outside a steady relationship is also considered indecent. Our interviews clearly indicated that the women associated condoms with distrust, infidelity, and promiscuity. Many women revealed that they were afraid they would be distrusted if they asked their partner to use a condom. Insisting on using a condom within a relationship is a clear imputation of infidelity. Because women do not want to impinge on trust, which is one of the main features of a steady relationship, and as their respectability is important, they tend to make compromises. Furthermore insisting on using condoms also implied the women were sexually active, which is not considered respectable. Some participants stated that if they bought, carried and used a condom, they would be regarded as 'cheap' or a *puta* ['ho' or 'slut'].

The participants of our study, as respectable women, would only engage in respectable steady relationships. These relationships were considered inherently safe and their partners as trustworthy. In other words, in these relationships, safe sex was not considered necessary and as a consequence negotiating safe sex strategies was not considered relevant.

Concluding, in negotiating safe sex with a partner, women encountered ambiguity between being respectable and being responsible. On the one hand, their independence, autonomy, authority and pride inherent to the matrifocal household, gives them ample opportunity to negotiate safe sex and power to be determined in executing their decisions. Generally speaking women thought of themselves as being responsible or having to be responsible, i.e. protecting themselves and their children. The women attributed irresponsibility to their male partners. They were aware that they could not count on their partners to be responsible in these matters. Consequently they realized that to practice safe sex, they had to be the ones to commence safe sex negotiation.

On the other hand, the need to be respectable burdens negotiation practices, because as respectable, virtuous women there would not be the need to use condoms. Respectable women would only indulge in serious monogamous relationships which are inherently safe, so they believed.

Feeling like a woman: desirability

Being a responsible mother and a respectable woman is not the full story. Being able to seduce a man makes a Caribbean woman feel like a woman and having a monogamous steady

partner provides her with respectability. *'It is certainly important to have a man. Who cares for you. That's the mistake ... who cares for you. You don't care for yourself, he takes care of you'* (Rosa, Dutch Antillean woman, 35 years old, 15 years of residency, married, 3 children). In their quest of finding an appropriate partner, yet retaining their respectability, women encountered a double sexual standard regarding sexual behavior, which was mentioned by all of the participants. *'Because I always say, men always want to fuck everyone, but they want, if they have to, marry a virgin. That is the reality, RIGHT?'* (FGD 3, Dutch Antillean women, 36-54 years old).

According to participants sex is essential, especially in a relationship. The women acknowledged that everyone has sexual needs and desires, though men seem to have more needs and are less capable to restrain these desires. Women have to account for their sexual actions, and men are stimulated to be sexually active and be sexually experienced.

Eighty percent of the women had experienced an adulterous partner. Although our participants claimed that this is commonly accepted in the population, our participants all stated that they rejected 'bysides' and 'buitenvrouwen' ['outside women'], and infidelity, and that their own current partner was faithful. Many of the participants have understood how unstable sexual relationships are from early childhood. Most women came from broken homes and they had been raised by their single mothers. They witnessed infidelity through the behavior of their fathers, uncles, brothers and other family members. Generally, women did not have multiple concurrent partners but as their relationships were unstable, did engage in consecutive relations. Apart from losing their own respectability, women assumed that if they did engage in concurrent sexual contacts it would be disrespectful of their partner, it would be an attack on his masculinity and his peers would consequently disrespect him.

According to the women, typical Caribbean men are egoistic, dominant, macho and vain, and incompetent in the area of housekeeping. Men have a reputation for being womanizers and unfaithful. Moreover they are considered to be irresponsible and unreliable.

Participants differentiated between 'players' and 'switis' ['sweeties']. The 'players' were the typical macho Caribbean men who were very successful in convincing women that they were 'special' to them, making them feel like a seductive woman, thus making them feel like a woman. Caribbean men are expected to 'walk out on you'. It is not uncommon for them to have secondary relationships, 'bysides' or 'outside women'. *'You know what you get when*

dating a Caribbean man' (Jennifer, Dutch Antillean woman, 23 years old, 4 years of residency, married, 1 child). The participants seemed to see the infidelity as an indispensable evil that they just have to tolerate. *'You know, that's what you often get with Afro-Surinamese men. And if you can't stand it, yeah, then you should stay alone, you know, stay without a man'* (Gloria, Afro-Surinamese woman, 22 years old, second generation, married, 2 children).

Being able to 'trap' a player gives a woman prestige and is depicted as a success. Then again, the margins for negotiating safety with these men were very limited as the women were certain that these players would not be inclined to use protection. Being with a switi guarantees stability and comfort, but is not as exciting as dating a player, who makes a woman feel desirable.

'Cause I see it happen so many times, especially in our cultures, the women know that the man has someone else, and for ages. But she stays. You hear many women say: "Oooh I've known him for so long, he's the father of my children. I'd rather have him than someone else, who I don't know at all!" (Shirly, Dutch Antillean woman, 19 years old, 6 months residency, single).

This quote reflects the emotional dependency on their partner. This dependency on the partner limits the margins for negotiation within a relationship. The participants were afraid that their partner would 'walk out' on them if they persevered to use a condom; their partner would leave them for someone else who didn't insist. They feared loss of respect from their peers if a partner would 'walk out on them'. The women could feel trapped by their partner. Some women experienced a relationship as a struggle in which they sacrificed a lot. Even though they were aware of the risks, they gave in to the partner's wishes and tended to compromise in order to keep him.

Conclusion and discussion

The emotional dependency discourages women from initiating safe sex negotiation. Communicating sexual wishes becomes daunting. Their main concerns regarding safe sex negotiation, were finding the right time for discussion and fear of the reaction of their partner.

Our study indicates that Afro-Surinamese and Dutch Antillean woman are first of all strong, independent and autonomous, capable of taking care of themselves, making decisions and of negotiating their demands regarding risk reduction. However, their beliefs of being respectable, i.e. virtuous and monogamous, generates a perception that their relationships are

inherently safe, therefore they believe safe sex is unnecessary. Furthermore, the emotional dependency on a partner, limits inclination to communicate and negotiate safe sex. Many women struggle with the ambiguity of being responsible and autonomous and keeping their respectability. Through running a household and raising children, women prove they possess these highly valued characteristics. They think it's important to be financially independent and self-supporting. This independence, in theory, enables them to discuss and demand safe sex practices. Practicing safe sex is responsible and autonomous women will perceive the necessity of doing so. The value of responsibility enhances safe sex decision-making and opens up the margins for negotiation. Many women claimed to be using verbal-direct strategies.

Deviation of matrimony is accepted in Creole matrifocal culture. To be married means women are economically dependent and should be loyal to a husband. This would only restrict their freedom in household management and limit help from their kin or their female network (Freeman, 2005). We see that women revert to serial romantic relationships. 'Visiting unions' or 'visiting relations', are fluid romantic relationships in which partners do not share permanent residence, which may shift to co-habitation with partners retaining their flexibility (Freeman, 2005). National statistics on household structures confirm the household structures of our sample. More than half of the Dutch Antillean and nearly half of the Afro-Surinamese households with children are single-mother households, compared to 15% of the general Dutch households (Harmsen & Garssen, 2005).

Respectability for women is primarily attained by being monogamous and maintaining a faithful partner. In pursuing the ideal respectability, the margins to speak about sexuality are limited and women often retreat to more non-verbal and indirect strategies. Previous research (Amaro & Raj, 2000; Wyatt et al., 2000; Gupta, 2002) suggests that discussing sexual related topics might affect the reputation of women; these findings are not supported by our study.

The margins of negotiating safety are furthermore restrained by the perception women have of masculinity. Men are described as irresponsible, macho, and promiscuous. Women experience conflicting roles: 'being a woman', meaning being respectable and responsible, which is inconsistent with 'feeling like a woman', meaning being seductive and desired. In both roles women encounter a double moral standard in sexual behavior for men and women. Generally speaking men are encouraged to be sexually active and keep concurrent relationships whereas

women should be monogamous and should not engage in casual sexual contacts. Though most women are financially independent, they are emotionally dependent on their male partner. This ambiguity between emotional dependency and economic independency has an impact on safe sex decision-making and on their willingness to negotiate safe sex strategies. Within a relationship the margins for negotiation are ambiguous, capricious and unpredictable.

Given the qualitative and descriptive nature of this study, we need to take into account some limitations of the results. Our selection of participants was by convenience sampling and participation was voluntary. We did not aim for representativeness and tried to include women from a broad variety of socioeconomic backgrounds. Considering the sensitiveness of our interview topics, we may have included a certain subgroup of participants who were more eager to discuss intimate issues and were better at expressing themselves than others since they were slightly higher educated and Dutch speaking, a prerequisite for participation.

An issue may be the influence of social desirability of the participants and the influence of the interviewer, as the interviewers were of a different ethnic background. We applied triangulation of collection techniques (Maso & Smaling, 1998), furthermore the preliminary results were checked in FGD, between the interviewers and interviewees were asked for comments. In addition, we found the results of our study to be generally in line with previous research on gender roles in Caribbean cultures (e.g. Krumeich, 2000; Smith, 2001; Gupta, 2002; Terborg, 2002; Prior, 2005; Quinlan, 2006), we may conclude therefore that our results fit the general scheme of how masculine and feminine roles interact in Caribbean cultures.

Health promotion prevention programs are most likely to be effective when their objectives and strategies match the cultural contexts and social reality of priority populations (Resnicow et al., 1999; Parker et al., 2000; Kreuter et al., 2003; Kreuter & McClure, 2004). Furthermore by utilizing constructive cultural aspects, instead of focusing on changing negative cultural practices, we refrained from 'cultural blaming'. Incorporating cultural core values could enhance the acceptability of intervention efforts. In the development of a subsequent STI/HIV-prevention intervention, 'Uma Tori! Kòmbersashon di hende muhé' or 'women's story', we have integrated these cultural values and social contexts of Afro-Surinamese and Dutch Antillean women (Bertens, Schaalma et al., 2008 in press).

Taking into account the struggle of the Afro-Surinamese and Dutch Antillean women to negotiate safe sex, we may conclude that the cultural context of the Dutch Antillean and Afro-Surinamese women is unfavorable toward negotiating and practicing safe sex, yet we should not despair. The authority and independence within the matrifocal household grants Caribbean women opportunities to negotiate safe sex. This decision making power should be expanded, and women should become aware of this personal authority and their capabilities to take charge and speak up. There is room in each relationship to negotiate safe sex practices. This is encouraged through a sense of responsibility and hampered by respectability and obstructed by emotional dependency on their partner. Women need to become aware of the ambiguity and contradictions in their perceptions of femininity.

Consciousness-raising and self-evaluation, through dramatic relief, sharing personal testimonies, and role modeling as described in the Transtheoretical Model (Prochaska et al., 2002) may increase women's awareness of the power relations and their own risk situation. Discussing relational issues would not only increase women's awareness of their own risk situation but also of social norms (Ingham & van Zessen, 1997). Group discussion functions as a tool to increase knowledge and positive attitudes towards safe sex, and to reinforce negotiating safe sex with their partners. Incorporating the female social networks that the women rely on in an intervention program assists female solidarity and empowerment. By increasing awareness of their personal relationship, the women discover the most realistic negotiation strategy. By focusing on their personal perceived power struggles with their partner they increase their motivation to discuss safer sex options. Improving negotiation and communication skills increases their self-efficacy.

Role modeling, role playing techniques, observational learning (Bandura, 1986) can be used to improve communication and negotiation skills and problem solving skills. Women employ different negotiation strategies. Using the most suitable negotiation strategy in a particular situation influences the success of safe sex negotiation. There is a variety of negotiation strategies that might be effective in particular relationships: verbal or non-verbal, direct or indirect (Williams et al., 2001; Lam et al., 2004). Women need to detect their own most suitable and appropriate negotiation strategy.

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Planned development of culturally sensitive health promotion programs: An Intervention Mapping approach

Authors

**Madelief G.B.C. Bertens¹, Herman P. Schaalma²,
L.Kay Bartholomew³, Bart van den Borne¹**

1 Maastricht University, Faculty of Health, Medicine, and Life Sciences, Department of Health Education and Health Promotion

2 Maastricht University, Faculty of Psychology, Dept of Work & Social Psychology, the Netherlands

3 University of Texas Houston, Health Science Center, USA

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Abstract

Health promotion attempts to enable our ability to maintain or improve quality of life by means of education and by creating conditions that are beneficial to our health and that of our social environment. In this article we present a protocol for the design of theory- and evidence-based health education and health promotion programs. The protocol, entitled *Intervention Mapping* (IM), provides guidelines and tools for the development of health promotion programs that are based on 1) needs assessments among priority populations and communities, 2) analyses of theory-based options for corrective action, and 3) collaborative planning. IM and its application to the design of culturally sensitive health promotion programs is illustrated with an example of the development of an HIV prevention program for minority women with a Caribbean background in the Netherlands.

Keywords

Health promotion, Intervention Mapping, theory- and evidence-based, culturally sensitive programs

Various reviews and meta-analyses of health education and health promotion programs and descriptions of health promotion development in general have argued that, in order to be effective, intervention programs should be systematically planned, theory- and evidence-based, gender-specific and culturally sensitive (e.g. Fisher & Fisher, 1992; Wingood & DiClemente, 1996; Mize et al., 2002; Keleher, 2004; Kreuter & McClure, 2004; Green & Kreuter, 2005; Bartholomew et al., 2006; Lyles et al., 2007).

This makes health promotion intervention development a task of understanding which methods and strategies generally work to change the behavior of interest, which determinants of behavior are suggested from the evidence and theory, which determinants may be specific to the priority population at-hand, and which cultural elements may affect the health behavior and/or the uptake of a resulting program. These tasks are complex and difficult at best and often are truly daunting. How then should health education planners move along when they have to develop theory- and evidence-based health promotion interventions that match the socio-cultural background of priority populations?

Although many theorists and researchers in health promotion have emphasized the need for culturally-sensitive interventions, only few have specified the meaning of culturally-sensitive and procedures to accomplish cultural sensitivity. Resnicow, Soler, Braithwaite, Ahluwalia and Butler (2000) have defined cultural sensitivity as: "The extent to which ethnic/cultural characteristics, experiences, norms, values, behavioral patterns, and beliefs of a priority population as well as relevant historical, environmental, and social forces are incorporated in the design, delivery, and evaluation of targeted health promotion materials and programs" (p. 272). Although this definition is still rather vague about the concept of 'culture', it points out that groups may share beliefs, norms, values, experiences and traditions, and that interventionist should fine-tune their interventions to the 'culture' of priority populations.

In order to accomplish cultural sensitivity of programs, it has been suggested that interventionists have to consider both the explicit or surface cultural manifestations, such as language, clothing, contexts and traditions, and the implicit or deep manifestations of culture, such as beliefs, values, norms and roles (Resnicow et al., 1999; Resnicow et al., 2000; Wilson & Miller, 2003). Several strategies have been distinguished to accomplish cultural sensitivity (Wilson & Miller, 2003; Kreuter & McClure, 2004): 1) presentation strategies, referring to peripheral,

evidential and linguistic strategies enhancing message receptivity and accessibility, e.g. by using peer health educators, native language, and cultural sensitive scripts and contexts, 2) socio-cultural strategies, referring to approaches to enhance message salience by grounding the intervention content in the context, experiences, values, beliefs and norms of the priority population. In addition, constituent-involving strategies have been suggested to create cultural sensitivity, referring to active participation of members of the cultural group of interest in the program design process.

Both surface and content strategies are usually operationalized by techniques derived from social marketing: exploratory focus groups, pilots of program components, and the involvement of community members in the program design process and program delivery (Wilson & Miller, 2003). Although these techniques are useful in matching programs to surface manifestations of culture, it remains rather unclear how they enable interventionists to match their program to the implicit or deep cultural structures underlying health and risk behaviors. They do not provide clear guidelines for the consideration of cultural issues when defining health promotion goals, identifying behavior change strategies, and program implementation and evaluation.

In this chapter we will present a protocol for the design of culturally sensitive theory- and evidence-based health promotion programs. The protocol, entitled Intervention Mapping (IM), provides guidelines and tools for the empirical and theoretical foundations of health promotion programs, for the application of theory, for the translation of theory in actual programs and materials, for the matching of intervention strategies to the socio-cultural context of priority populations, and for the management of program adoption and implementation. IM is based upon an ecological approach to health promotion and on active participation of priority groups in program planning. IM incorporates the abovementioned approaches to accomplish cultural sensitivity. By describing the development of a HIV-prevention program targeting Caribbean women in the Netherlands, we will illustrate the applicability of IM to design culturally sensitive intervention programs.

Intervention Mapping

Intervention Mapping is a protocol for the development of theory- and evidence-based health promotion interventions (Bartholomew et al., 2006). IM guides health promoters through program development, demystifying the process and eliminating mistakes

identified by previous teams. It also provides a framework for collaboration between health promoters, priority populations and stakeholders. IM is based upon an ecological approach to health and health promotion. IM acknowledges that health is a function of individuals and their environments, including families, social networks, organizations and public policy frameworks (Richard et al., 1996; Green & Kreuter, 1999; Waldo & Coates, 2001; Dooris, 2005). In IM 'health behavior' not only refers to individual behavior, but also to the actions of groups and organizations. Consequently, IM regards decision-makers as agents in the environment who may serve as targets for health promotion interventions (Bartholomew et al., 2006). For example, HIV testing may depend on individual knowledge and motivation but is also determined by the actions of legislators, health authorities, organizations and other decision-making groups. Interventions may be required at each of these levels if the uptake of HIV-testing is to be increased. IM further emphasizes that health promotion program development requires full participation of priority populations and stakeholders (Wallerstein, 1992; Gomez et al., 1999). Interventionists, researchers, representatives of priority groups and stakeholders should collaborate in the program development process from start to finish. Active participation of priority groups and stakeholders facilitates the matching of programs to the socio-cultural background of priority populations in and intervention contexts. In addition, active participation may generate a sense of program ownership by priority population members over program planning and implementation, which, in turn, facilitates program sustainability (Bracht, Finnegan et al., 1994; Wallerstein et al., 2002).

IM describes the process of promotion program development in six steps (Bartholomew et al., 2006; see Figure 1.): 1) Assessment of needs and capacities, 2) Specifying change objectives, 3) Selecting theory-based intervention methods and practical intervention strategies, 4) Designing and organizing of the program, 5) Specifying adoption and implementation plans, and 6) Generating an evaluation plan. The protocol guides program developers through each of these steps by means of specific tasks that generate a product that, in turn, provides the basis for subsequent steps. IM empowers program developers to answer planning questions by a) searching and using empirical findings from the literature, b) by accessing and using theory, and by c) collecting and using new data.

IM has now been used for a variety of health promotion programs: HIV prevention (van Empelen et al., 2001; Tortolero et al., 2005; Kok et al., 2006), healthy diet (Cullen et al., 1998; Hoelscher et al., 2002), cancer screening (Hou et al., 2004; Fernández et al., 2005), sun protection (Tripp et al., 2000), violence (Murray et al., 1998), and patient education (Bartholomew et al., 2000; Morgenstern, Staub et al., 2002; Heinen et al., 2006).

Figure 1. Intervention Mapping (Bartholomew et al., 2006)

In the following we will elaborate on the six steps of the IM protocol and we will illustrate these steps with an example of HIV-prevention among Caribbean women in the Netherlands.

IM1: Needs Assessment

The design of health education and health promotion programs starts with needs assessments that are sensitive to the experiences of, and risks faced by, priority populations (Green & Kreuter, 2005; Bartholomew et al., 2006). Such assessments include epidemiological analyses of behavioral and environmental causes of a health problem, psychological analyses of behavioral correlates, and sociological analyses of the resources or capacity of the community. This implies that different priority populations may require different combinations of interventions to change health behavior. IM emphasizes local, collaborative development that is responsive to the particular needs of a population in a specified geographical, economic and cultural context. IM requires establishing a collaborative planning team to design and conduct the needs assessment. The primary goals of a needs assessment are to get a full understanding of a priority population, its problems, its character and its strengths. Needs assessments may include a variety of qualitative and quantitative research methods (Witkin & Altschuld, 1995; Dixon-Woods et al., 2004). Needs assessments enable health promotion planning teams to specify health promotion goals in terms of change in health status, quality of life, behavior, and environmental conditions.

Sexual health, Caribbean women, cultural values and safer sex

In the Netherlands ethnic minorities are relatively at substantial risk of STD/HIV-infection, especially women with an Afro-Surinamese or Dutch Antillean background. HIV/STI surveillance data show relatively high HIV/STI prevalence rates among women from the Antilles or Surinam (Götz et al., 2005; van Veen, Koedijk et al., 2007; van Veen, Wagemans et al., 2007). Furthermore, survey data indicate that many of these women have a sexual relation with men who do have unprotected sex with other partners (Gras et al., 1999; Gras et al., 2001; Wiggers et al., 2003; van Veen, Wagemans et al., 2007).

Although these women can not be considered as one group sharing a similar cultural background – the Antillean and Surinamese women vary in country of origin, language, and religious affiliation, duration of residency and level of integration in Dutch society – they do share features with regard to family structure, gender roles and sexual relations. The Dutch Caribbean household composition can be characterized as a matrifocal family system, in which women have a central role as

wage earner, provider, guardian and parent. It is not uncommon to find single parents and female headed households, sometimes with three generations of women sharing a household. So called 'rainbow-families' (families with children from different fathers) are rather common, and many women rely on informal social networks of female family members for social and financial support.

In order to get insight in the cultural context of sexual relationships, sexual decision-making and safe sex negotiation of Dutch Caribbean women, we conducted individual in-depth interviews, FGDs (Bertens, Krumeich et al., 2008 in press) and a survey (Bertens, Wolfers et al., in press 2007). The results of our research revealed that women did not perceive themselves to be at risk for STI, primarily because they do not believe their relationships to be risky. They primarily relate HIV/STI susceptibility to their own behavior, although they acknowledge that many Caribbean men have concurrent relationships and unprotected sex in the country of origin. The research further suggested a tendency among women to perceive all their sexual relationships as steady, intimate and trustworthy, including for instance, ongoing relationships with the father of a child, and sexual contacts with ex-partners.

Most women indicated to feel rather comfortable and capable of negotiating safe sex in steady relationships; however, they seem not to feel a need to do so. Discussing safe sex with casual partners was perceived as more difficult, and many women indicated to find it hard to stand up to men smoothly trying to talk them into having sex without condoms. From our survey we found that attitudes and norms are the most important correlates of negotiating safe sex in steady relationships, whereas attitudes and perceived control are the most important correlates of negotiating safe sex with casual partners.

The interviews further revealed that sexual behavior, attitudes and beliefs were culturally grounded in values regarding being a respectable and responsible woman, and feeling a desirable woman. Being a responsible woman refers to being in control, financially independent and self-supporting, creating space for negotiating safe sex. Simultaneously, however, being a respectable woman refers to being sexually reputable and maintaining steady partnerships, which seemed to limit safe sex negotiation as discussing sexual matters was perceived as indecent and safe sex as unnecessary in a steady relationship. Moreover, 'respectability' seemed to enforce not to question men's sexual infidelity. In addition, women's desire to feel like a woman, 'to tame the macho-man' and constrain him into a steady relationship, also seemed to limit negotiation space because of feelings of emotional dependency. This ambiguity impacts on women's safe

sex decision-making and on their willingness to negotiate safe sex strategies.

IM2: Change Objectives

In the second phase in health education program design health promoters need to become as specific as possible about the changes they like to accomplish with their program. They need to specify the broad conceptualized health promotion goals into detailed objectives describing what the priority population specifically needs to learn. The IM procedure for goal specification includes 1) stating the health promotion outcomes for the program, e.g. the promotion of condom use, 2) specification of the health promoting goals into sub-behaviors or components that clarify the exact performance expected from someone affected by the intervention program (so-called performance objectives), e.g. buying condoms, taking them along, negotiating their use, and 3) analysis of the correlates/determinants of these sub-behaviors, e.g. knowledge, attitudes, values, norms, self-efficacy, skills, habits. Subsequently, health promoters can specify what individuals need to *learn* to be able to perform the health behavior (e.g. expressing confidence in ability to negotiate condom use), or what must be changed in the organizational or community environment (e.g. making condoms available at secondary schools). So program planners end this first step with a series of lists of specific and detailed objectives per correlate of relevant sub-behaviors. Since these so-called change objectives specify where to go and what to do, the list guides both program design and program evaluation – it is the map, the GPS, for further intervention development.

Caribbean women, sexual relations and safer sex

Our needs assessment showed that the perceived relational status and safe sex negotiation had an important impact on safe sex practices among Caribbean women, and that consistent condom use did not seem to be a very realistic safe sex strategy for women in long term steady relationships. Because regular relationships are often seen as inherently safe, 'negotiated safety' may be more realistic, and therefore more effective health message (Kippax et al., 1997; de Visser & Smith, 2001) as an adequate risk reduction strategy. For this strategy to be effective, partners need to communicate and discuss sexual safety based on monogamy and consistent condom use with other sexual partners, and they need to make and stick to agreements. Taking into account the gender imbalances in power, we decided that our intervention should focus on consciousness raising, assertiveness and empowerment in addition to improving communication and negotiation with a sexual partner. Subsequently, we specified performance objectives based upon

Table 1. Summarized Matrix of Program Change Objectives

Performance Objectives	Knowledge	Risk Awareness	Attitudinal Beliefs
P.O. 1. Analyse personal sexual risk	<ul style="list-style-type: none">• Describe characteristics of STI/HIV• Explain STI/HIV transmission, risks, risk reduction, and treatment options	<ul style="list-style-type: none">• Describe and question own sexual behavior, past and present• Recognize that risk is also related to partner behavior	<ul style="list-style-type: none">• Acknowledge importance of being a responsible woman• Explain personal risk analysis will lead to better decisions
P.O. 2. Analyse personal power in sexual relationships	<ul style="list-style-type: none">• Describe differences between casual and steady relationships• Describe differences in gender roles	<ul style="list-style-type: none">• Recognize power role in relations• Endorse personal relevance of the power differential in relationships	<ul style="list-style-type: none">• Recognize that power relations will increase their ability to choose strategies with realistic outcomes
P.O. 3. Generate safe sex possibilities	<ul style="list-style-type: none">• List possibilities to practice safe sex strategies• List evaluation criteria	<ul style="list-style-type: none">• Explain that the selected strategies must be well matched to the situation.	<ul style="list-style-type: none">• State positive outcomes of different safe sex strategies• Underscore the value of using different strategies
P.O. 4. Negotiate safe sex with partners	<ul style="list-style-type: none">• List steps of successful negotiation		<ul style="list-style-type: none">• Describe that safe sex negotiation will result in safer sex

Perceived Norms	Social Support	Skills and Self-efficacy
	<ul style="list-style-type: none"> • Friends/ family encourage to analyse personal risk 	<ul style="list-style-type: none"> • Demonstrate capability to conduct a personal risk evaluation (intro-spect, evaluate, conclude)
<ul style="list-style-type: none"> • Identify power inequalities within subculture • Describe effects of power inequali-ties 	<ul style="list-style-type: none"> • Friends/family discuss problems, personal feelings and emotions 	<ul style="list-style-type: none"> • Express confidence to discuss sexuality • Express self-confidence to confront partner with his behavior
	<ul style="list-style-type: none"> • Friends/family support generating and considering safer sex strategies 	<ul style="list-style-type: none"> • Demonstrate generat-ing various safe sex strategies • Demonstrate generat-ing routes to cope with problem situations
<ul style="list-style-type: none"> • Express belief that important others discuss sexuality with partners 	<ul style="list-style-type: none"> • Friends/family supports dealing with consequences of negotiating safer sex 	<ul style="list-style-type: none"> • Describe situations in which they can initiate safe sex talk • Demonstrate negotiation skills

the Aids Risk Reduction Model (Catania et al., 1990) and self-regulation principles (Boekaerts et al., 2000): consciousness raising regarding sexual risks and power in relationships, and enhancement of sexual decision-making skills, especially regarding personal opportunities to execute appropriate realistic risk reduction strategies. Cultural aspects like women's position in the matrifocal family structure, the importance of 'being a responsible woman' and conceptions of trustworthy sexual relationships were incorporated in both performance objectives and program change objectives.

Table 1. depicts a summarized version of the matrix behavioral performance objectives (rows) and the correlates of behavior that could be derived from our formative research and theory (columns). The cells of the matrices comprise change objectives, specifying the immediate targets of the behavior change intervention. Potentially important factors were knowledge, personal risk awareness, attitudes toward sexual risk reduction strategies, perceived social norms and social support, self-efficacy, sexual assertiveness, and skills.

IM3: Methods and strategies

The third phase in program development concerns the selection of theoretically based intervention methods that may be effective in accomplishing the proximal program objectives, and the translation of these methods into practical intervention strategies and materials. For instance, a theoretically based method for enhancing self-confidence in performing a particular behavior is modeling or learning by observation. A practical intervention strategy for this method could be role-playing and/ or watching competent models on video. Theoretically-based intervention methods can be derived from the scientific literature. Information about the feasibility and effectiveness of practical intervention strategies can be derived from needs assessments, contacts with other health promoters, collaboration with program implementers and users, and from small-scale pilots. An important task at this step is to identify the conditions that may limit the effectiveness of intervention methods and strategies. A method or strategy that has proven to be effective among a particular priority group in a particular context will not necessarily be effective among other populations or in other contexts (see Kok et al., 2004).

Taki tori

Intervention methods were to a large extent derived from Problem Based Learning (PBL) (Barrows, 1986; Duffy & Savery, 1994), the Transtheoretical Model (Prochaska et al., 2002), self-regulated learning (Boekaerts et al., 2000) and observational

learning (Bandura, 1986). Intervention sessions involved dramatic relief, active group interaction and discussion of topics and themes relevant to the particular groups of women (such as STI/HIV, unwanted pregnancies, sexual communication, negotiation with a partner and gender roles) and role modeling. In order to translate intervention methods into culturally sensitive and implementable program strategies and materials, we relied on a constituent-involving approach: Women, lay minority health educators, intermediates, representatives of minority organizations and experts were involved in the program design process by means of brainstorm sessions, individual and group interviews, and feedback panels. Starting with the general methods, the planning team developed a working list of possible additional methods, and program strategies and materials. Subsequently, the planning team reviewed available HIV/Aids peer education program materials targeting migrant populations (Knapen, 2003) to identify materials that did match with the program change objectives, methods, and strategies; possible strategies were discussed regarding their appropriateness, feasibility, and expenses. Finally, methods and strategies were sorted on their potential effect on the change and performance objectives. The main intervention strategy was women sharing and discussing personal testimonies regarding relationships and sexuality. This story telling ('taki tori') functioned as a tool to increase knowledge and positive attitudes towards safe sex, and to reinforce negotiating safe sex with their partners. The final selection of program methods and strategies is summarized in Table 2.

Peripheral and linguistic presentation approaches were used to adjust the selection of strategies and materials to the 'Caribbean' culture of our priority population: Information about HIV/STI prevalence in the Netherlands was specifically targeted to Caribbean populations, materials were translated in local language, and Caribbean peer models were included in program materials. In addition, in line with the absence of a reading culture in Caribbean communities, audiovisual materials were included in the program.

IM4: Program Production

In IM step 4 program developers design a plan for the production and delivery of the program. This step involves organizing the strategies into a deliverable program taking into account priority groups and settings, and producing and pilot testing the materials. To integrate separate strategies into one coherent program, health promotion planners have to make decisions on the program structure, its scope, the sequence of strategies, and the communication channels. In this phase, planners usually

Table 2. Uma Tori. Extract of theoretical methods, practical strategies and materials

Goals of Group Activities	Methods
Encouragement to select topics, themes, formulate issues	Creating and mobilizing social network; Self-observation, evaluation and instruction
Overcoming barriers to discuss and communicate sexual issues	Reattribution; Consciousness raising; Skill training; Belief selection; Discussion
Increasing knowledge and risk perception	Information Social comparison Consciousness raising Discussion Fear arousal
Increasing self-awareness, Self-observation and self-evaluation	Dramatic relief; Personal risk appraisal; Confrontation; Self-observation and evaluation Social comparison
Increasing awareness and self-evaluation	Modeling; Consciousness raising
Improving negotiation skills	Persuasion; Social comparison Modeling; Self-evaluation
Practicing condom use skills	Modeling Skills training

Practical Strategies and materials

Introducing oneself by sharing personal details about one's: 'Name', 'Keychain', 'Zodiac sign', 'Wallet', 'Jewelry', 'Fairy tale' or 'fable', 'Shoes'; Setting rules about conduct, confidentiality and respect; Brainstorm and group discussion

Brainstorming and reaching consensus about language used; Exposure to reproductive and sexually related objects; Role play taking perspectives describing your own body; 'Marlon and Jenny game'^a: sticking post-its with sexual techniques and acts (safe and unsafe) on silhouettes of man and woman: Combining sexual activity and safe sex techniques

Discussion 'Women and aids'^a: Clippings on women and STI/HIV Information on women related issues; 'Knowledge quiz'^a on STI/HIV knowledge, risk and myths; Discussion of prior knowledge and beliefs; 'Question cards'^a Answering questions, discussing statements on condom use, STI, HIV test, risky situation; 'Dirty pictures' Role playing of transmission in sexual networks; 'Hand game'^a

Personal Testimony: 'Uma Tori', Drawing and telling one's personal sexual history on lifeline; 'Story telling'^a: Reading/ telling a story from a short novel or fable; 'Fantasy'^a: Form ideas, finish a story

Role-model using video's; Role model story 'Story of Esther'^b – True story of HIV+ woman

Role-play: negotiation, initiating discussion, dealing with excuses

Condom demonstration

^a Knapen (2003);

^b Rambaran (2000)

collaborate with producers, such as text writers, graphic designers and video producers. Planners' major task is to convey program intent to producers, and to guard whether final program products adequately incorporate the theoretical underpinnings. This step also involves systematic pre-testing of pilot materials (National-Cancer-Institute, 2006).

'Uma tori Kòmbersashon di Hende Muhé'

For the delivery of the program methods and strategies, we settled upon a series of group sessions. Reviews on evaluation of interventions aimed at minority women suggested that multiple session, small-group education with the use of peer-educators would be a feasible way to deliver our intervention strategies (Wingood & DiClemente, 1996; Mize et al., 2002). Sharing personal testimonies and discussing relational issues would not only increase women's awareness of their own risk situation, but would also empower them in setting personal and realistic goals in maintaining healthy relationships. The resulting program is called 'Uma tori Kòmbersashon di Hende Muhé', meaning 'Women's stories! Conversation between women' in respectively Sranan and Papiamentu. Program themes are relationships, sexuality and health, and the focus is women sharing their stories. Uma Tori is a 5-session, about 2.5 hours each, interactive small group education. The groups are made up of 7 to 15 women; small enough to be intimate but large enough to be able to discuss different perspectives. Because of the sensitive topics discussed in the intervention, activities aimed at the enhancement of feelings of safety and confidentiality were included. Groups were stimulated to define their own problems in relation to sexual relationships and safe(r) sex, and to set their own learning objectives.

The final program included a toolkit with program materials that could be implemented to accomplish groups' objectives. This kit comprised of 1) exercises to encourage women to select topics and themes of personal interest, formulate issues they encountered, 2) audiovisual materials to raise risk awareness (a videotaped documentary about Surinamese and Dutch Antillean teenage mothers, a videotaped soap about HIV+ women in the Antilles, and a video addressing HIV/Aids-related stigma), 3) materials to accomplish story telling, sharing, and small group discussion, and 4) role playing techniques to improve communication and negotiation skills and problem solving skills. For example, one of the main program strategies was the 'lifeline Uma Tori' exercise encouraging women to reveal their past sexual relational history, focusing on life events, memorable relationships, risky situations and/or risky partners, by drawing it on a timeline, and writing or telling it to others (Rambaran, 2000a). To model the lifeline exercise, this strategy employed a

realistic, recognizable model story of a woman who eventually contracted HIV because of her steady sex partner.

IM5: Planning for Adoption and Implementation

The production of the program must be closely linked to the planning of program adoption and implementation, since reliable diffusion procedures are essential to program impact. The first task of IM step 5 is to develop a linkage system, a structure to connect those who are developing the intervention and those who will use the program, such as the priority population, intermediaries, and stakeholders. The linkage system should enable collaboratively developed user-relevant interventions, and should furthermore stimulate the diffusion process of adoption and implementation.

In addition IM step 5 describes how program developers can set objectives for program adoption, implementation and maintenance, and how they can link these objectives to theoretical methods and practical strategies for promoting adoption and implementation. Thus, health promoters not only need to develop interventions to change individual behavior, but also interventions to facilitate program adoption and implementation. In addition, program planning should address the sustainability of the program. Health promoters need to encourage institutionalization of the program to ensure program impact over an extended period of time. The anticipation of program adoption, implementation and maintenance is important from the very beginning of the planning process.

Home-parties

To reach and motivate women of the priority populations to attend the program and be present at all 5 sessions, the program relied on elements from the 'Tupperware party' and 'Home party' approach in which a hostess creates a group from her own social network and organizes group sessions (Boelhauwers et al., 2001). The basic idea of the delivery of Uma Tori was that migrant peer educators selected hostesses from their network, preferably women with a central position in the community. These hostesses, in turn, would set up women groups from their social network. This approach was regarded to match women's matrifocal socio-cultural situation. To facilitate sustainability of the program, our implementation plan included national organizations responsible for the training of migrant peer educators, and municipal health centers employing migrant peer educators.

Since implementing the 'Uma Tori' program would require a transfer from traditional didactical approaches aimed at knowledge transfer to participatory and problem-based pedagogical approaches aimed at initiating and facilitating

discussions, value clarification, and skill building regarding self-observation, self-evaluation and self-re-evaluation, all peer educators had to attend a 5-day training course using a format similar to the Uma Tori-program. The training focused on group dynamics, discussion and communication skills, flexibility and delivery of the Uma Tori strategies. The educators went through the same procedures as the participants of Uma Tori, but in addition to becoming aware of their own sexuality they also focused on becoming aware of themselves as educators. They practiced the strategies as participants, role-playing as hostesses, educators and participating women. To motivate women to attend the training seriously, the training was embedded in the national peer education program and presented as in-service competence building.

IM6: Planning Evaluation

The last IM phase refers to planning a process and effect evaluation. The first task in step 6 is to develop an evaluation model in which health promoters specify evaluation levels, outcome indicators and measurement, and evaluation planning. The content of the evaluation model is based upon the previous IM steps. On the basis of the first two IM steps, effect evaluation questions can be specified. This enables health promoters to measure changes in learning objectives, health promoting behaviors and sub-behaviors, and even the health problem. On the basis of step 3 and 5 process evaluation questions can be developed. This enables health promoters to evaluate the reach of the program and the quality of its implementation. Was the program disseminated, was it adopted and used completely and correctly? Which strategies did work out, and which failed? And what were the reasons for failure?

Viva Uma Tori!

We evaluated our program using a pre- post-test design, using self-report questionnaires. In addition, we conducted a qualitative process evaluation, using logbook, interviews and FGD to assess the fidelity and completeness of program implementation. Five lay peer health educators, who were trained to deliver Uma Tori, recruited 27 hostesses, who, in turn, enlisted participants from their social networks. In total 322 women signed up for the program, of which 273 (85%) participated in the program. The intervention consisted of 5-sessions, and took place in the homes of the hostesses. The group size averaged 10 women (range 6 – 14). Sessions lasted between 2 to 7 hours, with an average of 3.6 hours.

The evaluation revealed that Uma Tori was received with enthusiasm by all health educators and participants. In addition,

effect evaluation suggested that the program had a positive impact on all outcome measurements, except for perceived social support. After the program: 1) Women's knowledge about STI, transmission routes, and risk reduction strategies had increased, as well as their personal risk awareness; 2) Women's attitudes and perceived norms regarding condom use, monogamy and negotiated safety had become more positive; 3) Women reported higher levels of self-efficacy and sexual assertiveness. Moreover, the evaluation suggested that the program had improved the communication of sexuality and safer sex between women and their partners.

Process evaluation revealed that the home-party recruitment strategy had worked out well. Hostesses managed to recruit women from different social networks, a broad variety of women groups did participate in the intervention, and 83% of the women participated in all sessions. Session logbooks indicated that the intervention sessions covered all planned topics: relationship status, sexuality, negotiation with partners, risks of unsafe sex, transmission and symptoms of STI, teenage and unwanted pregnancies and safe sex strategies. In addition to intervention objectives, most of the groups had addressed contraceptive use, sexual satisfaction, knowing one's body and feeling comfortable with one's body. Most groups had spent a lot of time on implementing strategies regarding knowledge about sexuality, STI and condom use, condom use skills, and sexual negotiation. Interviews with health educators suggested that the personal testimony strategy in which women were to share their 'lifeline' regarding sexuality and sexual relations, was too confrontational for participants evoking a lot of emotion. Notwithstanding, many participants revealed that they had had the opportunity in other exercises and discussions to tell part of their stories and that could relate to others' stories. FGDs and the post-test evaluation revealed that most women appreciated that their questions were answered and that they had input in the topics that were covered. The participants further indicated to have enjoyed the small group size and the familiar environment, both increasing feelings of trust and intimacy. Many women indicated to appreciate the social support provided by their group, and many claimed that they had become more aware of their risks and their power position within their relationships.

All together the evaluation suggested that the interactive, multiple sessions, multi-faceted small-group intervention can be successful in inducing increasing awareness, sexual assertiveness and intentions to negotiate and communicate with partners, provided that it is gender specific and culturally sensitive.

Health promotion attempts to enable our ability to maintain or improve our quality of life by means of education and by creating conditions that are beneficial for our health and that of our social environment. In this chapter we argued that health promotion is most likely to be successful in accomplishing this challenge when programs are systematically planned, theory- and evidence-based, gender-specific and culturally sensitive. We also presented a protocol to support health promoters in this task: Intervention Mapping.

Intervention Mapping describes the complex process of program development as a step-by-step albeit iterative process by breaking down the process into phases, and by breaking down these phases into specific tasks that program planners have to complete. For each of the phases the protocol provides guidelines and tools for the use of theory and evidence, but also for the collaboration between health promoters, researchers, priority groups and stakeholders. The protocol concretizes the concept of active participation of priority groups in health promotion. As such, it provides specific guidelines for the development of programs that are culturally sensitive; programs that match the socio-cultural context of health and behavior of priority groups. The protocol further clarifies that designing culturally sensitive programs goes beyond qualitative formative research and involving priority populations in the design and delivery of health promotion strategies and materials. It clarifies and emphasizes that cultural sensitivity should be considered throughout all the program design phases: in needs assessments, in setting and specifying health promotion goals, in the selection of methods and strategies, and in program production, delivery and evaluation.

Designing health promotion programs is a complex process that requires professional skills and experience. Health problems will never directly lead health promoters to clear-cut solutions, and a cooking book providing clear recipes for reducing health problems will never become available. In our view, IM provides a framework for demystifying the complex process of building health promotion programs. It provides a structure and tools that will support health promotion planners in their work. Using a planning tool such as IM makes it more likely that programs will be more effective in promoting health in that sense that it prevents health promoters to jump to conclusions, and that it stimulates the systematic application of scientific evidence. IM enables health promoters to develop programs that include theory-based strategies that match program objectives, and that

match priority populations and intervention contexts. In addition, IM guarantees that health promoters anticipate a wide-spread and continued program implementation. And – perhaps above all – it provides a framework for the collaboration between research and development, priority groups and intermediaries, stakeholders and program producers.

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Authors **Madelief G.B.C. Bertens¹, Ellen M. Eiling¹, Bart van den Borne¹,
Herman P. Schaalma²,**

1 Maastricht University, Faculty of Health, Medicine and Life
Sciences, Department of Health Promotion

2 Maastricht University, Faculty of Psychology, Department of
Work and Social Psychology

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Abstract

Objective

This study describes the effectiveness of 'Uma Tori', an STI/HIV-prevention intervention for women of Afro-Surinamese and Dutch Antillean descent in the Netherlands aimed at increasing awareness of sexual risk and power in relationships and improving sexual decision-making skills.

Methods

Intervention effects were evaluated in a pre- post-test design, using self-report questionnaires among a sample of 273 women. Data were analyzed using intention-to-treat, MANOVA with repeated measures and Bonferoni correction for multiple comparisons. A qualitative process evaluation, using logbook and interviews, was conducted to assess fidelity and completeness of intervention implementation.

Results

The analyses showed positive effects on knowledge, risk perception, attitude change, subjective norms toward safe sex and sexual assertiveness. The program resulted in a stronger intention to negotiate and practice safe sex, and in more communication between partners about safe sex.

Conclusion

The results of the effect evaluation of 'Uma Tori' are promising and the intervention seems to support attempts to reduce sexual-risk behavior among ethnic minority women.

Practice implication

The evaluation suggests that interactive, multiple session, multi-facetted small-group interventions are successful in inducing increasing awareness, sexual assertiveness and intentions to negotiate and communicate with partners, provided that it is gender specific and culturally appropriate.

Keywords

Effect evaluation, STI/HIV prevention, women, ethnic minority

Ethnic minorities in the Netherlands are at substantial risk of STI/HIV-infection (van de Laar et al., 2005). Relatively high HIV prevalence rates, in the range of 0.8-3.2%, have been found in people from Surinamese and Dutch Antillean descent whereas the estimated prevalence among the general Dutch population is 0.2% (Wiggers et al., 2003; van Veen, Koedijk et al., 2007; van Veen, Wagemans et al., 2007). The 2006 STI surveillance data show that people from Surinam, the Netherlands Antilles and Aruba had higher positivity rates for genital chlamydial infection, gonorrhea, syphilis and genital herpes than the native Dutch population (van Veen, Koedijk et al., 2007). In addition, relative high rates of teenage pregnancy among these women (5 to 9 times the teenage pregnancy rates of Dutch girls) and abortions (7 to 9 times the abortion rates of Dutch women) indicate a high prevalence of unsafe sex (van der Poel & Hekkink, 2005). Several surveys have shown high levels of sexual risk behavior for these minority groups, especially among men. These behaviors include inconsistent condom use, high rates of partner change, concurrent relationships, and sexual contacts outside existing steady relationships (Gras et al., 2001; Wiggers et al., 2003).

In this article, we will discuss the effects of an STI/HIV-prevention intervention specifically designed for women of Afro-Surinamese and Dutch Antillean descent. The intervention, developed in accordance with the Intervention Mapping approach for health promotion (Bartholomew et al., 2006; Bertens, Schaalma et al., 2008 in press), was a multi-faceted, 5-session, interactive small-group intervention provided by peer health educators. The main goal of the intervention – entitled ‘Uma Tori! Kòmbersashon di hende muhé’, meaning ‘women’s stories’ and ‘conversation between women’ in respectively Sranan (Surinamese) and Papiamentu (Antillean) – was to enhance women’s control of their sexual health and to commence and maintain healthy sexual relationships. Intervention objectives were largely based on the Aids Risk Reduction Model (ARRM) (Catania et al., 1990) and self-regulation principles (Zimmerman, 2000): increasing awareness of sexual risk and power in relationships, by improving sexual decision-making skills and generating personal opportunities to execute appropriate realistic risk reduction strategies.

Intervention methods were to a large extent derived from Problem Based Learning (PBL) (Barrows, 1986; Duffy & Savery, 1994), the Transtheoretical Model (TTM) (Prochaska et al., 2002) self-regulated learning (Boekaerts et al., 2000) and observational

learning (Bandura, 1986). Intervention sessions involved dramatic relief, active group interaction and discussion of topics and themes relevant to the particular groups of women (e.g. STI/ HIV, unwanted pregnancies, sexual communication, negotiation with a partner and gender roles) and role modeling. The main strategy was women sharing and discussing their personal stories – personal testimonies - regarding relationships and sexuality (Rambaran, 2000a). These stories functioned as a tool to increase knowledge and positive attitudes towards safe sex and reinforce negotiating safe sex with their partners. The intervention further included a ‘toolkit’ consisting a variety of strategies and materials to aid initiating discussion (Knapen, 2003).

The intervention was delivered by peer health educators. Since Surinamese and Antillean women strongly rely on female social networks (Bertens et al., 2008 in press) the implementation of the intervention was based upon a Tupperware-party model (Boelhouwers et al., 2001) utilizing existing female networks. The health educators linked up a hostess who motivated women from her social network to participate in the program. The intervention sessions took place in the homes of the hostesses. Uma Tori is described in more detail in Bertens et al. (2008 in press).

Methods

Sample, design and procedures

In between 2004 and 2005 Uma Tori was delivered by three Surinamese and two Antillean peer health educators, employed by the Municipal Public Health Services Rotterdam Area and trained for delivering Uma Tori. These health educators recruited 27 hostesses, who, in turn, enlisted participants from their social networks. In Rotterdam, the intervention was implemented in 27 groups. A total of 322 women signed up for the intervention, of whom 273 (85%) participated and completed the pre-test. Of these women 218 completed a post-test questionnaire; 185 (68%) completed pre- and post-test. The group size averaged 10 women (range 6 – 14). The Surinamese women all spoke Dutch; the Antillean sessions were carried out in either Papiamentu or Dutch. Ethical clearance was granted by the Ethical Committee Psychology (ECP), Maastricht University, and all participants signed an informed consent form prior to partaking in the intervention.

We evaluated intervention effects on correlates of sexual risk reduction behavior in a pre-post test-only design, using a self-report questionnaire. We did not use a randomized control trial because of practical, pragmatic, and ethical reasons (see e.g.

Gomez et al., 1999; Waldo & Coates, 2001; Wallerstein et al., 2002; Martijn et al., 2004; Dooris, 2005). The pre-test questionnaire was administered at the beginning of the first session, whereas the post-test was handed out at the end of the last session and returned within three months after the intervention. A native speaker translated the questionnaire from Dutch into Papiamentu for the Antillean respondents. Women were granted 20€ for completing both self-administered questionnaires.

A qualitative process evaluation was conducted to assess the reach of the intervention, program utilization and program organization, and the fidelity and completeness of implementation.

Effect evaluation

Measures

The questionnaire was developed using scales validated by previously conducted evaluation studies among ethnic minority women (Rosenthal et al., 1991; Witte et al., 1996; Beadnell et al., 1997; Robinson et al., 1997; Beadnell, Baker et al., 2000; Bowleg et al., 2000; Castañeda, 2000; Witte, Meyer et al., 2001b; Bachanas et al., 2002; Beadnell, Baker et al., 2003) and pre-tested among the priority population (N = 10). Unless otherwise stated, items were scored on 5-point Likert-type scales.

Demographics

The pre-test questionnaire included questions about participants' age, ethnic origin, years residing in the Netherlands, educational level, work situation, religious denomination, marital status and number of children, and the names of the lay health advisor and hostess.

Knowledge about STI/AIDS

Nine statements about STI/AIDS were used to measure knowledge about STI/HIV, transmission, prevention and risks ($\alpha = 0.81$ at pre-test; $\alpha = 0.68$ at post-test). Items were derived from the HIV-knowledge quiz of the National Institute of Health Promotion and Disease Prevention (Knapen, 2003) and the questionnaire of the Choices Project ('Choices: A women's Health Project', 1995). Answer categories were true, false or do not know. All correct answers were added, resulting in a score ranging from 0 to 9.

Risk perception

STI/HIV risk perceptions, measured by perceived severity, perceived susceptibility and response efficacy of risk-reduction strategies, were derived from the 'Risk Behavior Diagnosis scale'

(RBD) which was based on the Extended Parallel Model (Witte et al., 1996; Witte, Meyer et al., 2001a). Two items perceived severity, e.g. "STI/HIV is a big problem in the Netherlands"; $r = .44$ at pre-test and $r = .50$ at post-test), Perceived susceptibility of infection was measured by two statements: "Looking at my current life-style, I am at risk of infection" and "The chance that I will ever be infected is negligible". Because of the low intercorrelation, these items were separately included in the analyses. Four statements assessed the perceived response efficacy, e.g. "If I use a condom, I decrease the chance of STI-infection"; $\alpha = 0.65$ at pre-test; $\alpha = .69$ at post-test) Answers ranged from 'totally disagree' to 'totally agree'.

Attitude

The participants were asked to evaluate the pleasantness and necessity of condom use with a new or casual partner, condom use with steady partners, monogamy, and negotiated safety (respectively $r = 0.74$, $r = 0.70$, $r = 0.85$ and $r = 0.37$ at pre-test, and $r = 0.46$, $r = 0.72$, $r = 0.67$ and $r = 0.29$ at post-test). These questions could be answered with 'yes, completely', 'yes, to some extent' or 'no'.

Social support and social norm

Four items derived from the Medical Outcomes Study Social Support scale (MOS-SSS) (Sherbourne & Stewart, 1991), measured women's perceived social support (e.g. "Imagine you have problems with your partner. Do you have someone to share your most intimate feelings with?"; $\alpha = 0.92$ at pre-test and $\alpha = 0.94$ post-test). Answers varied from 'never' to 'always'. The subjective social norm regarding safe sex was measured by three questions about the perceived norm of the partner and significant others (e.g. "People who are important to me think I should have safer sex because of the risk of STI"; $\alpha = 0.69$ at pre-test; $\alpha = 0.65$ at post-test). Answer categories ranged from 'definitely no' to 'definitely yes'.

Self-efficacy

Perceived self-efficacy regarding negotiating and performing safe sex was assessed by 14 statements derived from the Sexual Self Efficacy (SSE) Scale (Rosenthal et al., 1991) and the RBD (Witte et al., 1996). For example, "If I would want to, I could discuss safe sex with my partner before we have sex". Answers ranged from 'definitely no' to 'definitely yes'. At pre-test this scale was reliable at $\alpha = 0.95$; at post-test $\alpha = 0.91$.

Intention

Intentions to practice sexual risk reduction strategies (i.e. condom use with new partners until STI-testing, until negotiating a safe sex strategy, negotiating monogamy, negotiated

safety, consistent and consequent condom use) was assessed using five statements, e.g. "I intend to use condoms with my new partners until we both are tested for STI/AIDS". Answer categories ranged from 'definitely no' to 'definitely yes'. Cronbach's alpha at pre-test was $\alpha = 0.91$; at post-test $\alpha = 0.77$.

Sexual communication

The frequency of sexual negotiation was indexed using four questions derived from the 'HIV/AIDS communication Scale' (Castañeda, 2000), for example "How often have you and your partner talked about STI/AIDS the past 6 months?" Answers ranged from 'often' (3), 'few times' (2) to 'never' (1). Higher total values indicated more sexual communication. This scale was reliable at $\alpha = 0.82$ at pre-test and $\alpha = 0.81$ at post-test.

Data Analysis

Data were analyzed with SPSS 13.0. To analyse intervention effect we conducted intention-to-treat analyses employing multivariate analysis of variance with repeated measures (pre-test-post test) and Bonferroni correction for multiple comparisons, with educational level (high-low), relationship status (single-steady partner), and age-group (<33> years of age) as between-subjects factors.

Process evaluation

The process evaluation addressed (1) strategies to recruit, involve and maintain participants in the intervention, (2) intervention reach (3) fidelity and completeness of implementation (Linnan & Steckler, 2002; Bartholomew et al., 2006). After each session, the health educators and hostesses completed a logbook containing questions about (1) group characteristics, e.g. age, ethnic background, language, length of stay in the Netherlands (2) attendance; (3) resources, the location, costs and duration of the session; (4) goals and themes of the sessions; (5) take home assignments; (6) methods, strategies, exercises and materials employed (7) appreciation of strategies and materials (8) evaluation of each session and evaluation of total program. After the intervention period, interviews were conducted with each health educator, in which the logbooks were used as topic list, as well as three focus group discussions (FGD) with participants and hostesses. FGD primarily addressed the importance of the themes covered, the usability of the methods and strategies employed. In addition, the post-test questionnaire contained open-ended questions regarding the impact of the intervention on the participants' personal lives, and the likeability of materials and strategies. The contents of the logbooks, answers to the open-end questions, and transcriptions of the interviews and FGDs were analyzed using NVivo 7.0 (QSRInternational, 2007).

Table 1. Effects on outcome measures, intention-to-treat analyses, MANOVA with repeated measures, Bonferoni correction, educational level, relationship status, age-group as between-subjects factors (N = 142).

Outcome measures (range)	Mean (sd) pre-test	Mean (sd) post-test	F (1, 137)	p	Effect Size (r)
STI/HIV Knowledge (0-9)	6.0 (2.6)	8.0 (1.3)	75.709	.006	0.60
Perceived Severity (2-10)	8.5 (1.3)	8.8 (1.3)	7.396	.007	0.23
Lifestyle Susceptibility (1-5)	2.4 (1.2)	2.7 (1.3)	6.541	.012	0.22
Lifetime Susceptibility (1-5)	3.0 (1.1)	3.2 (1.1)	.469	.495	0.05
Response Efficacy (4-20)	15.0 (2.8)	16.4 (2.7)	21.680	.000	0.37
Attitude condom use, new partner (2-10)	7.4 (2.7)	9.0 (1.4)	40.970	.000	0.48
Attitude condom use, steady partner (2-10)	5.1 (2.6)	6.5 (2.5)	34.247	.000	0.45
Attitude monogamy (2-10)	7.4 (2.9)	8.8 (1.9)	27.832	.000	0.41
Attitude negotiated safety (2-10)	6.7 (3.2)	7.9 (2.2)	21.196	.000	0.37
Self efficacy/sexual assertiveness (14-70)	55.1 (14.5)	64.5 (7.1)	51.918	.000	0.53
Subjective Norm (3-15)	8.3 (4.5)	10.5 (3.8)	32.426	.000	0.44
Social Support (4-20)	14.5 (3.5)	14.6 (3.4)	.017	.897	0.00
Safer sex Intention (5-25)	19.6 (6.3)	23.1 (2.9)	36.606	.000	0.46
Sexual Communication (4-12)	6.5 (2.5)	7.3 (2.4)	11.345	.001	0.28

Demographics

Eighty-three percent ($N = 227$) of the participants attended all 5 sessions. The average age of the participants was 33 years ($SD = 12.7$; range 15-71). The majority (70%) of the participating women was first generation migrant, with an average duration of stay in the Netherlands of 16.4 years ($SD = 11.1$). Most women had completed high school (72%), 24% was still attending higher education and 10% had had no or elementary education only. At pre-test, 66 women were employed (36%) and 24% of the participants were unemployed or disabled; the others were students or housekeepers. The majority of the participants (82%) were members of the Catholic, Pentecostal, or evangelical churches. About half of all women were married or had a steady partner (54%). Sixty percent of the women had children. Sixteen women (8%) had not yet engaged in sexual intercourse. Sixty-two percent had never been tested for STI/HIV. Of those who had been tested ($N = 104$), 11% ever had an STI, two women were HIV-positive and four did not know their HIV-status.

Effects on outcome measures

The results of the multivariate analysis revealed statistically significant changes in dependent variables between pre-test and post-test, $F(14, 121) = 9.54, p = .000$. Within-subjects contrast tests revealed that women scored significantly higher at post-test measurement on all outcome variables but response efficacy and social support (see Table 1.). After the intervention, women on average scored higher on knowledge, perceived severity and susceptibility, attitudes towards of risk-reducing strategies, perceived subjective norms, sexual assertiveness and intentions to practice safer sex and sexual communications. Effect size correlations revealed small to large effect sizes.

The analyses further showed that intervention effect were dependent on relationship status ($F(14, 121) = 2.81, p = .001$) and educational level ($F(14, 121) = 2.71, p = .002$), but not on age group ($F(14, 121) = 1.47, p = .133$). Inspection of univariate effects revealed that changes between pre- and post-test were most profound among women with a steady partner and women with a low educational level.

History and selective dropout effect

To control for possible history bias we compared intervention effects among intervention groups that had been conducted before the summer break (spring groups $N = 80$) and groups that ran after the summer break (fall groups $N = 73$). These analyses revealed no overall differences between spring and fall

groups ($F(14, 120)=1.5, p = 0.112$), although intervention effects proved to be more profound in the spring groups ($F(14, 120)=2.1, p = 0.015$).

To explore possible biases due to selective drop out, we compared women who completed in both questionnaires ($N = 185$) with women who only filled in the pre-test ($N = 86$). Women who had not completed post-test measurement were regarded as dropouts. These 'dropouts' did not differ from other participants as regards age ($\chi^2(1)=1.848, p = .174$), educational level ($\chi^2(1)=1.949, p = .163$), and migrant generation ($\chi^2(1) = 3.313, p = .069$). Analyses of variance revealed that the 'dropouts' scored significantly higher on response efficacy ($F(1) = 8.747, p = .003$), attitudes towards condom use with a new partner ($F(1) = 8.121, p = .005$) and negotiated safety ($F(1) = 6.651, p = .011$), self-efficacy ($F(1) = 5.599, p = .019$), and intention to safe sex strategies ($F(1) = 6.741, p = .010$).

Process evaluation

Recruitment, preparation time, participation and resources

Inspection of the logbooks indicated that the home-party recruitment strategy had worked out well. Hostesses had managed to recruit women from different social networks, and a broad variety of women groups participated in the intervention (e.g., groups of friends, acquaintances and neighbors, family groups, and existing groups from self-help organizations). Six groups were made up of young women (16-25 years of age), but all the other groups consisted of women of various ages. The groups were composed of either 'new migrants', between 1-5 years of residence in the Netherlands or 'old migrants', either second generation migrants or long-term residents.

Interviews with both health educators and hostesses showed that the time needed to prepare and to realize intervention sessions exceeded initial plan. The sessions were to last 2.5 hours, with 2 hours preparation at the most. In practice, as the logbooks disclosed, sessions lasted between 2 to 7 hours, with an average of 3.6 hours. The health educators asserted that they had needed much more preparation time because of unexpected questions and topics the participants brought up. The hostesses indicated to have spent more time than expected in preparing food and drinks and reminder phone calls to enhance attendance. The logbooks showed that health educators and hostesses managed well to motivate women to attend the sessions: 83% of the women participated in all five intervention sessions.

The FGDs, the interviews and the open ended questions in the post-test survey confirmed that health educators, hostesses and

participants were very satisfied with the intervention sessions. The participants and hostesses declared that the health educators were committed and knowledgeable about the topics covered. All women involved stated that the groups functioned well and there was a lot of interaction during the intervention sessions.

Completeness

The logbooks suggested that the intervention sessions covered all planned topics: relationship status, sexuality, negotiation with partners, risks of unsafe sex, transmission and symptoms of STI, teenage and unwanted pregnancies and safe sex strategies. Although contraceptive use, sexual satisfaction, knowing one's body and feeling comfortable with one's body were not explicitly premeditated, these topics were addressed in most of the groups. The logbooks further specified that most, if not all, intervention strategies included in the toolkit had been employed. This suggests that, although strategy selection was supposed to be contingent on the issues put forward by distinct groups, many health educators had relied on a kind of set itinerary for group sessions.

Although not being a core strategy, most groups spend a great deal of time on implementing strategies addressing knowledge transfer. This observation was echoed by the interviews with the health educators, insinuating that participants lacked knowledge about sexuality, STI and condom use. In addition most groups spend a lot of time on condom use skills and role playing sexual negotiation. Logbooks also disclosed that the core strategy of the intervention, personal testimony, supposed to be used throughout all of the sessions, was used in all groups albeit often only in one session. Interviews further suggested that some health educators had not fully addressed this strategy because of an urge to complete the other exercises. The logbooks further revealed that the number of strategies employed increased per session, suggesting that health educators felt an urge to implement strategies they had not been able to employ in earlier sessions.

Fidelity

In general, the health educators said they were enthusiastic about the program because of its practical and interactive approaches. They specified that many aspects and much of the information were novel to them, and that the program was instructive and therefore not 'boring'. The methods, strategies and materials were considered appropriate for the priority population. Health educators claimed that they valued the flexibility of the program, enabling them to choose the strategies they thought complied with their wishes and needs of the groups.

Although the logbooks and interviews suggested that most of the strategies had been implemented according to plan, they indicated problems using the core strategy 'personal testimony'. Although all groups had completed the personal testimony strategy – in which women were to share their individual history regarding sexuality and sexual relations, this intervention strategy had not been used consistently throughout the program. Many educators indicated they had difficulty asking women to write down and share their personal sexual history; it was too confrontational and evoked a lot of emotion. Notwithstanding, the interviews with participants revealed that many felt they had ample opportunity to share their personal narratives and that they could relate to others' stories.

Both FGDs and the post-test evaluation confirmed that most participants were enthusiastic about the Uma Tori intervention; they especially appreciated that their questions were answered, their personal issues were dealt with and that they had a say in the topics that were covered. The participants further indicated to have enjoyed the small group size and the familiar environment, both increasing feelings of trust and intimacy. Many women valued the social support provided by their group. Many of the women claimed that they had become more aware of their risks and the power balance within their relationships.

Discussion and conclusion

Discussion

Our evaluation study clearly showed that Uma Tori has been received with enthusiasm by everyone involved: the health educators, hostesses and participants. This is a major step forward in HIV/STI prevention targeting minority populations in the Netherlands, since to date HIV/STI prevention practice has encountered severe problems with reaching minority populations with prevention activities that move beyond one-shot sessions limited to knowledge transfer (Martijn et al., 2004). Our study suggests that recruitment strategy relying on social networks of health educators and hostesses – the Tupperware-party model – is a useful strategy to reach and appeal to social networks of minority women, and to motivate them to participate in multiple session interventions targeting sexual health and to attend the full program.

Furthermore, our study suggested that the Uma Tori program managed to make some difference. After the program, participating women scored significantly higher on all outcome measurements, except for perceived social support and susceptibility. At post-test, women were more knowledgeable,

more aware of their sexual risks, more positive towards safer sex strategies, and more self-confident regarding reducing their sexual risks. All in all the results indicated that the program had motivated women to negotiate and practice safer sex. These results add to the favorable outcomes of other small-scale studies targeting minority women (Kalichman et al., 1996; Gomez et al., 1999). Remarkably, the program seemed not to have changed women's perceptions of social support; by making use of social networks we hypothesized perceived social support would increase. It may be that the participants were already experiencing high levels of social support prior to the intervention, although pre-test mean scores do not suggest a ceiling effect. It may also be that our measurement of social support, derived from the MOS-SSS measure for emotional/informational support (Sherbourne & Stewart, 1991), was too general and should have been framed in terms of sexuality and safer sex.

The Uma Tori methods were derived from problem-based learning, consciousness raising, self-regulated learning and observational learning. Our study clearly indicated that both health educators and participants appreciated the flexibility of the program providing opportunities to 'set the agenda' and to present and discuss issues they regarded to be relevant. Although the results show that the implementation of the core program method to raise consciousness – dramatic relief by personal testimonies – had encountered many difficulties, it appeared that the program managed to raise awareness about sexual risks and risk reducing strategies. It seems that the flexible nature of the program facilitated women in creating opportunities to disclose and share their personal history during the group sessions. Process evaluation results indicate that this program feature was central to program success.

Some of methodological flaws have to be taken into consideration. A first limitation refers to the representativeness of our rather small sample. Although our sample seemed quite representative regarding various socio-demographic variables, our sample was slightly higher educated and had a higher unemployment rate than the general population women with a Caribbean background. Additionally, because the recruitment strategy relied on the networks of health educators and hostesses we did not include high-risk and hard-to-reach subgroups, such as drug-using young girls. It is questionable if our social network strategy is useful in reaching these girls; outreach seems to be more effective (Pulley et al., 1996; Brown-Peterside et al., 2001; Rowden et al., 2001; Tross, 2001). The most serious limitation of our study concerns its research design.

Despite our intention to conduct a randomized controlled trial (RCT), it turned out to be impossible to include a (waiting-list) control group – our attempt to include a control group resulted in a response rate of 5%. Consequently, the only feasible design was a prospective study without a control condition. Gomez et al (1999) and Dooris (2005) among others, have suggested to evaluate effectiveness of interventions in real-life practices, instead of focusing on RCT (Gomez et al., 1999; Dooris, 2005). In order to find some ‘circumstantial evidence’ negating history biases we explored differences between groups conducted in different seasons. The results showed comparable program effects in both seasons, although the spring groups – the first intervention wave – seemed to be more successful and the effects were more profound compared to the fall groups – the second wave. This finding was contrary to our expectation that growing expertise among health educators would lead to larger program effects. An explanation for this unexpected result is that some of the health educators reverted to a more conventional, less effective, approach in which they relied on a fixed intervention manual. Process evaluation results, however, do not support this explanation. A second explanation is that women in the fall groups were more positive regarding safer sex strategies and slightly more motivated to practice safer sex at baseline measurement than women in spring groups. A fourth serious limitation concerns the short time span between the intervention and post-test. Although our study suggests short term program effects, these effects are by no means a guarantee that women succeed to reduce the sexual risks (Dancy et al., 2000; Ehrhardt et al., 2002). A fifth limitation refers to women’s reluctance to answer questions about condom use. Conducting research using self-administered questionnaires among this population was found to be strenuous (CBS, 2005). Participants showed an aversion to questionnaires and considered many questions about sexuality too intimate. Consequently, we were unable to include condom use as an outcome measure.

Conclusion

Despite all these study limitations, both the effect evaluation and the process evaluation suggest that Uma Tori was well received and able to make some difference in promoting safer sex among minority women in the Netherlands. The intervention program was received with enthusiasm, and it seemed to have increased women’s abilities to negotiate and practice safe sex.

Practice implication

In our view, enough reason to further develop its recruitment and intervention strategy, and to invest in its dissemination.

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"Too many conflicting emotional interests are involved for life to ever be wholly acceptable, and possibly it is the work of the story teller to rearrange things so that they conform to this end. In any case, in talking about the past we lie with every breath we draw."
William Maxwell (1996) *So long, See you tomorrow*.

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About the author

Madelief Bertens was born on June 13th 1971 in The Hague, the Netherlands. She grew up in Sudan, Cuba, the Netherlands and Costa Rica. She attended high school at Country Day School, San José, Costa Rica (1982-1987), and the international department of Jeanne d'Arc College, Maastricht, the Netherlands where she received the International Baccalaureate diploma in 1990.

She studied Psychology and Cultural Anthropology at the Radboud University, Nijmegen, the Netherlands. She obtained an MSc in Neuro- and Rehabilitation Psychology in 1996. As part of her degree she conducted research at the Dept of Internal Medicine, St. Elisabeth Hospital, Willemstad, Curacao. In 1998 she received an MA in Cultural Anthropology with a specialization in Medical Anthropology, University of Amsterdam. She carried out her field work as a visiting scholar at the Social Policy Research Center, University of New South Wales, Sydney, Australia.

She started her professional career in 1997 as an assessment psychologist at a psychological consultancy. She soon returned to research and worked as a junior researcher at several institutes between 1998 and 2001: at the Max Planck Institute of Psycholinguistics, Dept. of Cognitive Anthropology, Nijmegen, at the University Medical Center Utrecht, Division of Psychiatry, Structural MRI-imaging, and at the Trimbos-institute, Netherlands Institute for Mental Health and Addiction, Dept. of Mental Care, Programs and Guidelines, Utrecht.

From June 2001 until December 2007 she worked as a research associate at Maastricht University, Faculty of Health, Medicine and Life Sciences. At the Dept of Health Promotion, she conducted research resulting in the present dissertation. In 2006 she was engaged in teaching activities. In 2007 she was the project officer for the GenderBasic project, promoting the integration of the gender dimension in basic research, Dept of Health, Ethics and Society and Center of Gender and Diversity.

As of March 2008 she is an assistant professor at the Athena Institute, research on innovation and communication in health and life sciences, Vrije Universiteit Amsterdam. Between March and September 2008 she was seconded as a research officer to the Unit for Biocultural Variation and Obesity, Institute of Social and Cultural Anthropology, University of Oxford, United Kingdom.