

AIDS: TOWARD A SYSTEM FOR CLASSIFYING RISK AND PREVENTION BEHAVIORS

*SIDA: HACIA UN SISTEMA DE CLASIFICACIÓN DE CONDUCTAS
DE RIESGO Y PREVENCIÓN*

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Abstract

In recent decades, HIV infection and AIDS have been leading topics of concern and research around the world. Despite numerous multidisciplinary efforts, infection continues to spread alarmingly; up to now it has been suggested that the only effective solution is to try to link behavior with health-illness models. On the assumption that behavior as an individual practice may be grounded in different reasons that change their character and functionality within the interaction, and following the logic of the psychological model of biological health proposed by Ribes (1990a), this paper puts forth a classification system that enables these behaviors to be grouped not as particular cases, but rather as generic cases representing the main factors that come into play in the individual's interaction. Given the premise that before proposing an AIDS-prevention intervention method, it is important to identify what factors are involved in individuals' infection- and prevention-related practices, the establishment of this classification would make it possible to analyze the intra- and inter-individual consistencies that might be involved in the behaviors deployed in risk situations, which is an essential aspect for the creation of a prevention program. Some data are presented from empirical work related to the proposed categories.

Key words: AIDS, prevention, risk behaviors

Resumen

En las últimas décadas, el contagio por VIH y el SIDA han sido temas preponderantes de preocupación e investigación a nivel mundial. A pesar de los diversos esfuerzos multidisciplinarios, el contagio sigue avanzando de manera alarmante; hasta el momento, se ha sugerido que la única solución eficaz es intentar vincular el comportamiento con los esquemas de salud-enfermedad. Bajo el supuesto de que el comportamiento como práctica particular, puede estar fundamentado en razones diferentes que cambian su carácter y funcionalidad dentro de la interacción, y siguiendo la lógica del modelo psicológico de salud biológica planteado por Ribes (1990a), en el presente escrito se propone un sistema de clasificación que permite agrupar tales comportamientos no como casos particulares, sino como casos genéricos que representan los factores principales que entran en juego en la interacción del individuo. Partiendo de la premisa de que antes de proponer un método de intervención para la prevención del SIDA es necesario identificar cuáles son los factores involucrados en las prácticas de individuos particulares relacionadas con el contagio o la prevención, el establecimiento de dicha clasificación permitiría el análisis de las consistencias intra e interindividuales que pueden estar involucradas en la emisión de conductas desplegadas en situaciones de riesgo, aspecto fundamental para la elaboración de un programa de prevención. Se presentan algunos datos relacionados con el trabajo empírico relacionado con las categorías planteadas.

Palabras clave: SIDA, prevención, conductas de riesgo

Currently, AIDS (Acquired Immune Deficiency Syndrome) is one of the diseases causing greatest concern and receiving the most social attention due to the rapid increase in the number of people infected with HIV (human immunodeficiency virus). Data presented at the 17th International AIDS Conference, held in 2008 in Mexico City, estimate that 33 million people were living with HIV worldwide in 2007, while 7,400 people became infected every day, and 2 million AIDS-related deaths were recorded for that year. Moreover, it was pointed out that the 15- to 25-year-old age segment accounts for 45% of all new infections.

This growth rate is primarily due to the fact that a) HIV is an organism that is hard to attack given its huge capacity for proliferation and mutation within the organism, and b) therefore, the possibilities for finding an effective vaccine are minimal. Thus, the conclusions of the 17th International AIDS Conference include the assessment that research into new technologies for finding an effective vaccine is discouraging: for example, between 2006 and 2008, five advanced-state assays (four with wide-spectrum microbicides and one with vaccines) yielded null or negative results. This means that for the time being, the only effective way of dealing with the problem is through behavior-centered prevention, by linking behavior to health-illness models.

As a starting point, it can be posited that health, or its alteration, depends not only on biological, be-

havioral or social factors separately, but that these factors must be taken as a whole in order to have a better overview that will help us work toward the prevention, therapy and rehabilitation of the individual's health problems. In this sense, the aim is to carry out an intervention that has been called combined prevention (e.g., ONUSIDA, 2009), which involves reducing HIV risk and vulnerability by attacking both individual factors and structural (i.e., sociocultural, economic) factors that increase the individual's vulnerability to HIV infection.

From a psychological point of view, the analysis of problems related to health-illness must take into account the individual practices of a biological organism (psychological domain) framed within a context of norms and conventions that constrain action within certain limits (social domain), rather than regarding these practices as a mere complement to the biological knowledge needed to understand a particular individual's state of health or as knowledge of the diverse social conditions that bring about biological alterations. By this logic, behavior is the element that functionally brings together the factors that impact health.

There are numerous reports that provide information about possible modes of intervention for preventing HIV contact and/or infection (e.g. Kelly & Kalichman, 2002; Moreno et al, 2007; Peralta & Rodríguez, 2007; Robles, Piña, & Moreno, 2006): sometimes, the emphasis is placed on education;

other times, on information; and others, on the modification of risk behaviors. And yet so far, none of these approaches to the problem of prevention has been able to guarantee success (e.g., Janz et al., 1996; Mosquera, & Mateus, 2003).

Before proposing an AIDS-prevention intervention method, it is important to identify what factors in specific individuals' practices are linked to infection or prevention, so that subsequently, generalizations can be related to specific populations on the basis of the actual practices of the individuals making up those populations.

A first step toward the recognition of these factors is the analysis of practices that are directly related to the problem. The recognition of the situations in which both preventive and risk behaviors occur, as well as the elements of the interaction that have an influence on the realization of certain practices, can give us clues about individual tendencies that can then serve as indicators of possible modes of preventive intervention that are more closely linked to the real behaviors of specific individuals.

Behavior as a mediating element in HIV infection

One relevant aspect of the creation of prevention-related intervention strategies is the detection of factors that directly or indirectly impact the onset and development of the problem. In the case of AIDS, much discussion has taken place about just what these factors are and how they are interrelated. Among the most widely discussed are the following: a) the individual's biological vulnerability in the sense of the influence that behavior has on it; b) the existence of norms that make certain practices more or less likely; and c) the competencies and/or skills that the subject has, and that may or may not favor conditions of prevention.

One of the fundamental points in the planning and creation of prevention programs is the identification and analysis of behaviors that expose individuals to HIV contact and possible infection, so that subsequently intervention strategies can be implemented for modifying and/or adjusting these behaviors with an eye to keeping individuals away from sources of infection. Bayés (1990) suggests that "the AIDS epidemic is transmitted by clearly-defined instrumental behaviors that are intentional, and thus, can be avoided or carried out while introducing protective measures..." (p. 30). Thus, a

risk behavior is considered to be any behavior that brings an individual closer to, or into contact with, a potentially harmful situation.

Behavior (as a psychological event) stands out as one of the key factors involved in HIV infection. For this reason, the work of the psychologist takes on great relevance, both in research and the setting up and implementation of technologies that limit infection in the population.

On the basis of a wide variety of reports in the literature (e.g. Bayés, 1990, 1992; Castañeda & Gómez, 2005; Kelly et al, 1990; Marín, Marín, Juárez, & Sorensen, 1992; Matsuoka et al., 2003; Piña, Duarte, & Guzmán, 1991; Planes, 1994), it is possible to identify at least two ways in which behavior is the mediating element: a) unprotected sexual practice involving either vaginal, anal or oral penetration. This practice can be made between an infected and a non-infected person, leading potentially to a new case of infection, or between two infected people, in the case of re-infection. And, b) the use of infected utensils for injecting substances.

One might feel tempted to conclude that simply by modifying these practices and promoting preventive-type behaviors, HIV transmission would go down. And yet, experience with behavior-modification interventions in general, and with interventions for preventing AIDS and other illnesses in particular, has shown us that this is not the case. Complications arise when consideration is given to a wider array of factors that can exert direct influence as behavior modulators and therefore, affect contact with the virus. Among these we find the individual's material living conditions and the way he/she interacts with these material contingencies and other members of his/her social milieu, which includes the values and norms (implicit and explicit) that govern life in that society and to which each individual reacts differently.

A psychological model of health

Ribes (1990a) has proposed a health model from a psychological perspective that integrates individual factors (biological and idiosyncratic) and social practices (conventional and normative), which interact continually and affect the individual's biological vulnerability in different ways. The key factors of this model are:

a) The way behavior participates in the modulation of biological states, the degree to which it regulates the organism's contact with the functional variables of the environment.

b) The competencies that determine the individual's effectiveness in interacting with a variety of situations that directly or indirectly affect the state of his health.

c) The consistent ways that typify an individual in his/her initial contact with situations that could potentially affect her biological condition.

Thus, individual factors and social practices, organized on a functional basis, directly affect the individual's biological condition or vulnerability, with behavior as the mediating element of the functional organization of these factors (i.e. interactive history and current functional competencies).

The individual's interaction history involves the acquired ability to interact effectively with situations that call for certain results. To the degree in which past competencies and behaviors can be ascertained, as well as the elements in which they took place, interaction will be facilitated in current situations that are similar (in terms of functional constitution) to those in which the effective competencies occurred. Competencies, seen as interactive history, play an exclusively facilitating or expediting role, and are not to be regarded as direct causes of the behaviors that occur in a given situation.

Current functional competencies refer to the fact that an individual can be confronted by a certain situation and develop effective competencies to deal with the different sorts of requirements that this situation imposes. Ribes (1990a) has suggested four functional levels at which different competencies can take place in a situation:

a) Non-instrumental situational interactions: the individual acts by reacting differentially to objects, events and people who functionally make up a situation, but these actions do not intervene in the regulation or alteration of these relationships; an example of this kind of interaction would be doing things just because someone asked or instructed him to.

b) Instrumental situational interactions: the individual continues to react differentially to the elements that constitute the situation, but this time engages in effective behavior to produce changes in the situation; these changes, in turn, affect the

individual's behavior. In this case, for example, the individual could refuse to carry out the activity being asked by making a counterproposal.

c) Extra-situational interactions: at this functional level, the individual interacts with the elements constituting the situation as if they had the properties and features of other situations, i.e., the individual "...responds in terms of his experience when confronted by different circumstances or on the basis of properties that are not explicit at that moment of the situation" (Ribes, 1990a, p. 48). Extra-situational action takes place as if it were regulated by the events that occur, occurred or will occur in another moment and had different features and properties from those that are in evidence at the moment of the interaction. Thus, an example of this kind of interaction could involve refusing to carry out an activity, or asking to carry it out, because in the past (i.e. a different context or different people) it was something that turned out to be pleasurable.

d) Trans-situational interactions: this is the most complex level of interaction and represents a competency level that implies the abstraction of the conditions facing the individual. Thus, the subject does not respond to what is happening in the situation, or to what he/she perceives of it; rather, he/she interacts in terms of how she conceptualizes the situation, meaning that linguistic behavior is what regulates the functional relationships that constitute the situation. In this way, the individual herself can formulate effectiveness criteria that correspond to the situation. An example would be the request for a certain activity to be carried out for reasons based on moral precepts.

The primary aim of the model is to analyze and relate individual behavior with the subject's state of illness or health, focusing directly on individual practices that involve risk and prevention, because behavior is what takes on a unique functionality both in infection and in the development of the illness. At the same time, it is different from other psychological intervention models in the health field, in which the main aims tend to revolve around the analysis of the "causes" or "determining factors" that are associated with specific pathologies.

Given that engagement in different behaviors is not something that takes place at random, an individual's behavior is significantly influenced by the ways or modes in which he has interacted in simi-

lar situations, for example by the competency level that he has developed historically.

Thus, the so-called instrumental behaviors can be described as the practical and specific manifestation of the competency level developed by the individual over her interactive history; "...when we speak of instrumental behaviors, we are referring to ability, in the sense of knowing what to do in different areas and dimensions of an individual's practice in society" (Ribes, 1990a, p.58).

Elements for structuring a prevention program.

Without losing sight of the fact that there is a set of interlinked elements and factors for modulating an individual's organic condition, from a psychological viewpoint the behavioral capacity developed over time (which manifests itself in terms of an individual's "disposition" to interact in specific situations) is the key element for situating both the development process of the pathology and the conditions under which a state of biological equilibrium is manifested. This suggests that the strategy for an effective prevention system would include:

a) Providing the individual with the practical resources necessary for reducing the environmental factors that contribute to the increase of biological vulnerability.

b) Identifying forms of action that are instrumental for the prevention of all risks involved in the onset of pathologies, for example:

i) Instructing the individual in the proper use of resources from her environment, in their transformation when necessary, and in avoiding contact with pathogenic circumstances and agents.

ii) Training the individual in forms of interaction with the situational contingencies of his everyday life so that he develops effective modes of interaction that modulate his biological conditions and his immune system is not compromised.

In order to identify these instrumental forms of action, we must consider some factors that are directly linked to engagement in instrumental behaviors of both the risk and the prevention variety.

Ribes (1990a), when considering behavior as a risk factor, has specified three types of instrumentality: a) when the behavior gradually exposes the individual to environmental conditions, or produces conditions in the organism, that lead to pathological changes at a biological level, b) when the behavior is directly responsible for contact with spe-

cific pathogenic agents, and c) when the conduct is directly responsible for the biological harm.

In this way, instrumental risk behavior refers to a behavior having any of these three consequences. Preventive behaviors, for their part, are defined as those that reduce the risk of the organism's coming into contact with pathogenic agents, injuries or organic dysfunctions and/or the gradual induction of pathological alterations.

Another factor that is linked to instrumental behavior is its analysis in terms of functional capacities. Instrumental behaviors are directly linked to what has been called "the individual's abilities" or "know-how." In the case of health, these capacities can be understood as the availability of: a) behaviors that are required in the sense of being effective morphologies of behavior, b) information about the reasons for which certain behaviors should be engaged in or not, c) information about the occasions and/or the opportunity in which certain behaviors should be engaged in, and d) modes of interaction that are different from those that have certain instrumental effects, i.e. alternative behaviors.

The availability of each one of these capacities allows us to identify behaviors that are related to prevention. In these terms, it can be deduced that individuals who have these capacities in their behavioral repertory can put together preventive-type instrumental behaviors that lead to forms of "know-how," which would be the following:

a) Knowing what needs to be done, under what circumstances it needs to be done, how to say it and how to recognize it.

b) Knowing how to do it, having done it before and having practiced it.

c) Knowing why it has to be done or not, effects and consequences, and recognizing if one is inclined to do it or not.

d) Knowing how to recognize the opportunity to do it or not do it.

e) Knowing how to do other things in a certain situation, or knowing how to do the same thing in other ways (Ribes, 1990a).

Thus, the structuring of a prevention program that guarantees the availability of necessary information and effective behaviors, involves the need to know, in the greatest detail possible, individual risk and prevention practices, current behavioral capacity, and the quantity and quality of informa-

tion on routes of AIDS infection and forms of AIDS prevention among the individuals targeted by the program, i.e., exploring individual instrumental behaviors. This exploration should include aspects such as:

a) Providing knowledge about what AIDS is: how it spreads, how it can be prevented, and the possibilities of cure.

b) Identifying whether individuals have engaged in behaviors that imply a risk of infection, whether they have taken precautions or not or have developed preventive practices, and whether they have effective practical knowledge about the ways to prevent HIV infection.

c) Identifying individual customs in situations that imply a risk of infection, either by direct or indirect effects.

d) Verifying whether subjects recognize the opportunity of high-risk situations and/or behaviors, and of the probability that they will take preventive measures.

e) Identifying the availability of alternative forms of behavior in situations that imply a risk of infection or that take the individual out of high-risk situations.

Within this working framework, the proposal is to analyze behavior in terms of a specific individual's disposition to engage in practices that are manifestations of a generic category, and that can be either risk-inducing or preventive.

The fact that a person shows a tendency to engage in certain behavior(s) that might imply risk in a certain context does not mean that the person is, or could be classified as, "at risk." In this regard, Ribes (1990b) suggests that "Dispositional categories do not correspond to entities, but rather are terms that describe events repeated in the past or collections of present events, without applying to simultaneous relationships between unique events as occurrences *per se*. This means that statements do not describe occurrences; they describe past or present sets of occurrences (...). The logic of dispositional categories is, therefore, a logic of the identification of sets and the conditions in which the instances of these sets occur" (p. 237).

A classification of risk and prevention behaviors

Analyzing behavior in terms of an individual's disposition to engage in certain practices, combined

with identifying the functional levels at which the functional competencies that are present can be developed, can provide us with the basis for proposing a series of categories for classifying behavior, which in turn will enable us to analyze the significant elements of interaction in functional terms, thereby dealing with the consistencies of the tendencies in the behavior.

In this sense, different behaviors can be regulated by different events and/or elements of specific situations. When an individual comes into contact with a pathogenic agent, he/she deploys a series of behaviors –involving risk or prevention– that are made more or less likely by the individual's organic conditions, his interaction history, and social conventions. There are countless behaviors that make up consistent modes of interaction that depend on the effectiveness requirements of the situations and on the individual competency-based adjustment (Ribes, 1990a). These consistencies do not constitute specific forms of conduct, but rather functional modes of interaction (Ribes & López, 1985; Ribes, 1990a).

A behavior, as a particular practice, can be grounded in different reasons that change their character and functionality within the interaction. These reasons constitute idiosyncratic ways of confronting a situation. Thus, a classification system is proposed that enables these behaviors to be grouped, not as particular cases, but as generic cases that represent the main factors that come into play in the interaction, and that permit the analysis of intra- and inter-individual consistencies (i.e., as a collection of events or dispositional categories that suggest an individual tendency to react in certain ways to similar circumstances) that might be involved in the realization of behaviors deployed in risk situations.

Five psychological profiles (in the sense of functional categories) are thus proposed that can characterize behaviors situated within individuals' sexual practices, while at the same time, each profile is in turn divided into two sub-categories that indicate whether the chance of contact with a pathogenic agent (in our case, with HIV) is increased (risk) or decreased (prevention):

1. **CONJUNCTURAL:** Behaviors that arise as a consequence of factors present in the situation and/or particular circumstances (i.e. using a condom only if one is at hand, or not using one if none is immediately available).

2. BY PREFERENCE: This groups together behaviors that the individual prioritizes over others and that lead to immediate pleasurable consequences for the subject (i.e. having oral sex because the sensation gives pleasure or not using a condom because it does not feel the same).

3. HEALTH-RELATED: This profile includes any practice that favors the prevention or the spread of illnesses by fostering hygienic conditions either in the environment where the individual lives and functions, or in him (i.e. using a condom to prevent infection or explaining its lack of use to the possibility that the lubricant it contains could cause an allergic reaction).

4. HISTORICAL: Behaviors made likely by the subject's historical competency (ability acquired in the past) that either favor or do not favor contact with sources of infection (i.e. asking the partner to use protection because a previous partner did, or not using a condom because the subject never learned how to).

5. NORMATIVE: This category includes preventive or risk behaviors that adhere to a culturally defined rule or norm (i.e., practicing abstinence because that is what the church teaches, having unprotected coital relations for love and the trust in the partner that this implies).

To deal with the challenge that AIDS represents not only for medical science but also for psychology, prevention programs must show their effectiveness by reducing the number of new cases. For this to be possible, and in accord with the logic on which this entire paper is based, these programs need to be designed on the basis of detailed knowledge of the target groups (Coates, 1992). In order to begin to establish the usefulness of the categories proposed here for identifying and characterizing the risk and prevention behaviors associated with HIV contact, Torres, Quintana and Ortiz (in preparation) put together a questionnaire that functionally assesses HIV-related risk and prevention behaviors. While the use of methodologies based on the individual's verbal report can lead to precision and validity problems in measuring the dependent variable in question (e.g. Corral, 1997, 1999; Hayes, 1986; Johns, 1994; MacCorquodale, 1970; Skinner, 1945), a result that is associated with what is known as lack of telling-doing correspondence (e.g. Herruzo & Luciano, 1994; Rodríguez, 2000),

in view of the difficulties in conducting field observations of sexual behavior, the use of questionnaires becomes a fundamental option for evaluating individual behavior.

This questionnaire, known in its initials in Spanish as CENI/SIDA (Questionnaire for Assessing AIDS-related Interactive Levels), is made up of a total of 83 items divided into five areas: a) personal information, b) knowledge about AIDS, c) sexual behaviors, d) situations related to sexual practices, and e) functional competencies (for some examples of the items used, see Appendix 1). The items inquire about sexual practices and the reasons for the engagement or non-engagement in each practice (i.e., psychological profiles described above), the frequency with which they are performed, and the situations in which they are carried out, either by asking directly or by proposing generic situations that include the same types of sexual practices.

Ortiz and Quintana (1993) applied this instrument to a sample of 400 university students. The results showed that most had high percentages of knowledge about HIV AIDS; at the same time, those that reported using condoms (a preventive practice) did so to avoid pregnancy, while a considerable percentage of the sample (i.e. 18% of the men and 12% of the women) did not report condom use in spite of regarding themselves at risk of infection. Two thirds of the men who at the time of the research reported having coital relations claimed to believe they were at risk, while only one quarter of the women in the same situation made the same claim. In general, the data tend to show that having information about AIDS and knowing that one is at risk of infection are a necessary, but not a sufficient, condition for adopting preventive practices.

The analysis of the psychological profiles that characterize the behavior of having had coital relations, showed that most of the profiles identified in the men are grouped in the Conjunctural risk profile, and that those identified in women fall under the Normative risk profile. A large percentage of the men reported having had their first sexual contact for reasons included in the Conjunctural profile (inherent to the opportunity of engaging in coitus), but that they currently engage in coital relations for Normative-type issues (inherent to compliance with culturally defined norms).

In other studies, and using the same CENI/AIDS

questionnaire with high school students from a locality in the state of Jalisco regarded as highly conservative (i.e. Tepatitlán de Morelos), Alatorre et al (2008) and González and Barba (in preparation) identified differences by sex and semester with respect to the level of knowledge (i.e. greater knowledge in men in lower semesters and in women in upper semesters) and engagement in preventive and risk behaviors (i.e. greater risk in men in upper semesters and in women in lower semesters). For their part, Almaraz, García, Sánchez, Trejo, and Ortiz (2008) with a sample of undergraduate students found high levels of knowledge, but at the same time a considerable percentage of students who engage in high-risk sexual behavior. They likewise observed differences in knowledge with respect to sex and undergraduate career choice (i.e. greater knowledge in psychology and less in agroindustries, greater in men than in women), to risk or prevention behaviors in which they engaged (i.e. greater risk in agroindustries, and in men than in women), and to the psychological profile that was identified (i.e. more examples of Conjunctural profiles in agroindustries, and in men than in women, and more Normative in psychology, and in women).

As a whole, the data show considerable consistency in spite of the time elapsed between the applications of the reported studies (i.e. 15 years): high levels of knowledge but also high levels of risk practices reported. It can also be observed that, in general, while for men risk or prevention practices are associated with Conjunctural-type issues, for women, the type of profile that predominates in their engagement in these practices is the normative profile.

In this sense, at least for the populations studied, the type of prevention programs should focus on covering aspects related to Conjunctural and/or Normative dimensions, on the assumption mentioned previously that intra- and inter-individual consistencies, expressed in terms of the profiles studied, could be involved in the engagement in behaviors deployed in risk situations. On the basis of the data that were obtained, this elaboration and application would have to be differentiated by profile and gender, since gender does not determine the profile, even though women tend to react more normatively and men more conjuncturally.

Conclusions

Throughout this paper, the main argument has been made is that one of the factors that should be taken into account for the development of effective measures for controlling and preventing HIV/AIDS infection is the actual behavior the individual engages in that increases or decreases the chance of infection and its relationship with other factors (i.e. information and situations in which these behaviors occur). This argumentation is based on the assumption that the behavior participates in the modulation of biological states inasmuch as it regulates the individual's contact with the functional variables of the environment.

This in turn implies that the competencies define the individual's effectiveness in interacting with the different situations that directly or indirectly affect the subject's health, while the consistent ways that typify an individual in her initial contact with specific situations can potentially affect his/her biological condition.

Thus, people become infected on account of what they do or do not do in certain situations. This way of acting that people have is what has been called the individual's "instrumental capacity." In the case of prevention, it is vitally important to recognize these instrumental capacities in order to propose more effective modes of intervention with respect to engagement in risk or prevention behaviors. Thus, primary prevention models would have to be aimed at direct intervention with regard to behaviors related to AIDS infection, considering that the individual must be provided with the resources needed to decrease the environmental factors that contribute to an increased probability of HIV/AIDS infection; that is to say that the individual, in the environment where he lives and functions, has the possibility of acquiring appropriate protection measures, such as condoms, latex barriers, among others. It is also necessary to instruct the individual in the proper use of effective protective measures for preventing AIDS, because even though people have the information that, for example, it is important to use a condom, this does not necessarily means that they know how to use one.

Finally, there must be intervention with the aim of reorienting some behaviors that could be used as alternatives to high-risk practices. In many cases,

these behaviors already belong to the individual's behavioral repertory, and yet their actual use depends on other kinds of circumstances that are different from those related to AIDS.

Thus, we must consider that individuals do not behave in a risky way; risk behaviors are linked to a series of perfectly identifiable conditions that differ from one individual to another. Therefore, prevention work needs to consider these individual differences, as well as the analysis of the conditions under which both kinds of behaviors occur: those with a risk-related configuration, and those that are prevention-oriented.

While there might seem to be a contradiction between studying individual factors that affect sexual behavior and the creation and application of prevention programs aimed at large populations, the contradiction is in appearance only. From our perspective, it is not possible to create and apply prevention programs aimed at the population at large; they must target specific groups, based on the identification and understanding of the role played by each one of the structural and individual factors in the configuration of, in this case, specific risk and prevention interactions related to HIV contact/avoidance.

In this sense, the assumption is that while psychological behavior is individual, the study of the factors making up an interaction must be undertaken on the basis of individual cases in order to posit general principles that are applicable to a group of cases sharing certain specific properties. For example, if among undergraduate students a type of conjunctural and normative profiles were found to predominate, together with a high level of AIDS-related information, it would be possible to propose tailor-made strategies focusing on each one of these sub-groups, strategies that would be different from those commonly used (i.e. information campaigns) and that, up to now, have not produced the desired results in terms of reducing risk behaviors and increasing preventive behaviors (e.g., Brown, 1991; Chervin & Martínez, 1987; Freimuth, Edgar, & Hammond, 1987; McDermott, Hawkins, Moore, & Cittadino, 1987).

In this way, the proposed categories (i.e., conjunctural, preference, health-related, historical, normative) make it possible to identify, on the one hand, the convergence of factors and, on the other,

the proportional weight that each one of these factors exerts in different groups (i.e. gender, age, level of schooling, profession). This opens the door, for example, to identifying the reasons that explain why individuals with high levels of information continue to engage in high-risk practices and, at the same time, how these reasons might differ in different sub-groups of the same population, forming distinct population groups for which tailor-made prevention strategies and programs could be created.

The systematic study of each group's specific psychological characteristics (i.e. behavioral profiles) would facilitate a more precise definition of the groups to be targeted by different intervention programs, and of the techniques and strategies that should be used in each case, instead of forming groups on the basis of general sociocultural or demographic criteria (i.e. married low-income women, homosexual men, undergraduate students) and using similar strategies for all the groups thus formed. For example, in a group made up of individuals who tend to behave conjuncturally, the strategy would be to teach them to anticipate their conjunctural behavior by implementing ongoing prevention measures (i.e. always having a condom with them). On the other hand, in a group made up of individuals who tend to act in a normative way, the emphasis would be on identifying the accepted norms and the prevention behaviors that adhere to these norms, in accordance with the scale of values of the individuals in question.

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Appendix 1

Examples of questions used on the CENI/SIDA questionnaire

Knowledge about AIDS

Is AIDS transmitted only by sexual relations, blood transfusions, the use of infected needles and perinatal transmission (mother-child)?

YES NO I DON'T KNOW

Are AIDS symptoms evident from the time I get infected?

YES NO I DON'T KNOW

Sexual behavior

In general, under what conditions do you have sexual relations?

- A) Only when I had a stable partner.
- B) With casual partners.
- C) With prostitutes.
- D) With friends.

11. When you have sexual relations, do you use a condom?

YES

Because:

A) I prevent pregnancy.

B) I prevent disease.

C) My partner asks me to.

D) I like the sensation.

E) My partner likes the sensation.

F) We like the sensation.

Others. Specify:

SOMETIMES

Because:

P) I forget.

Q) I rarely buy condoms.

R) It's uncomfortable.

S) It interrupts the relation.

T) I'm embarrassed.

Others. Specify:

NO

Because:

G) I don't like the sensation.

H) My partner doesn't like it.

I) We don't like the sensation.

J) I feel better without one.

K) They don't work.

Situations related to sexual practices.

L) It's not right to use one.

M) I don't know how to use one.

N) I'm embarrassed to buy them.

O) I don't know where to buy them.

Others. Specify:

YOU RECENTLY CHANGED PARTNERS, AND THE TWO OF YOU DECIDED TO HAVE SEXUAL RELATIONS; YOU HAD HAD SEXUAL RELATIONS WITH YOUR PREVIOUS PARTNER, AND YOU BELIEVED S/HE DID NOT HAVE ANY KIND OF INFECTION OR SEXUALLY TRANSMISSIBLE DISEASE, SO:

Have you been in a situation like this one?

YES

NO

Where did you make this decision?

What did you do?

a) You had unprotected sex.

b) You tried to have a condom on hand.

c) You told your partner about your previous relations and you made the decision together.

d) You used a condom because you had one on hand.

e) You didn't use condoms because it's not right.

f) You used a condom.

g) Others. What?: