

# Stress, Coping and HIV Risk Behaviors among Hispanic Drug Injectors and Non-injectors Residing in Puerto Rico

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## Introduction

A large amount of information has been published describing the coping strategies used by individuals to manage their illness and other stressors (Fry and Prentice-Dunn 2005). However, the scientific literature is very scarce about the strategies used by drug users to cope with their stressors and how these coping strategies could be linked to HIV risk, particularly among Hispanic drug users. Studies on coping and HIV have mainly focused on how people living with HIV cope and the consequences of different coping styles (Siegel and Schrimshaw 2005). Coping strategies may play an important role in the conformation of factors that influence drug use and HIV risk behaviors. Drug and alcohol use have been commonly interpreted as coping responses to stress (Wagner 1993; Wagner, et al. 1999; Wills and Shiffman 1985). Some studies have found HIV risk to be associated with certain coping styles among drug users (Nyamathi, et al. 1995). Puerto Rican drug users have consistently been found to have a greater overall HIV risk than drug users of other ethnic/racial backgrounds and other Hispanic/Latino groups (Colón, et al. 1994). Although our prior studies have helped to understand some of the factors influencing the high levels of HIV risk of drug users in Puerto Rico, we have yet to examine the extent to which coping responses to stress influence HIV risk. The main goal of this study is to explore the relationship between coping strategies used by drug users in Puerto Rico and HIV risk behaviors. The findings of this formative research may be of assistance in developing more effective preventive interventions.

## Methods

- Two semi-structured interviews with non-IDUs (NIDU) (1 female and 1 male)
- Six focus groups with 16 active injecting drug users (IDU) (8 females and 8 males) and 38 NIDU (18 females and 20 males)
- Groups were divided by gender and by drug behaviors (IDU and NIDU). Based on our experience, matching the gender and drug behaviors significantly enhances rapport and receptiveness yielding better responses from the interviewees, especially regarding sensitive themes such as sexual behavior.
- Semi-structured interviews were used to develop an appropriate elicitation process for the subsequent exploratory focus groups
- Focus groups were conducted to collect information on daily stressors, appraisal mechanisms, coping behaviors, and HIV risk behaviors.
- Generative narrative questions were constructed to elicit narratives regarding stressors and stress, appraisal and coping strategies, the relationship between social support and coping, individual and social resources, and HIV risk behaviors. Beliefs, expectations, norms, rules and language regarding coping strategies were explored with these techniques. The contextual and situational factors in which stress, coping strategies and HIV risk behaviors are embedded were also explored.

## Analysis

- Focus groups and interviews were transcribed verbatim.
- A categorical-content approach (Lieblich, et al. 1998) was used to analyze narrative data.
  - This type of approach is recommended when the primary problem or phenomenon of interest is shared by a group of people. With this approach all focus groups were treated as a single analytical unit. Still, data was organized and separated by gender and drug behaviors (route of administration), and comparisons were made among the resulting groups.
  - Analytical categories or codes were defined, and separated utterances of the text were extracted, classified, and gathered into these categories/codes. The code scheme was initially developed based on the focus group guide, prior research, and the study's theoretical framework. The codes were expanded based on an initial reading of the transcripts using an iterative and inductive process.
  - A codebook of unique codes with mutually exclusive definitions was developed following the model suggested by the CDC (MacQueen, et al. 1999). Coded transcripts were entered into the QSR NVivo qualitative software to generate summaries of individual codes. These summaries were analyzed for major themes and relationships among groups (e.g. males vs. females).
    - A first-level of analysis was performed by scrutinizing the distribution of codes by group. Codes were counted as they emerged within and across the groups. This analysis allowed the investigators to map the interviews in terms of research questions and to identify the recurrent themes in participants' descriptive accounts.
    - Based on a comprehensive scrutiny of the coded interviews, the first-level descriptive codes were grouped in thirteen major thematic domains based on theme commonalities. Collapsing the first level codes into thematic domains reduces data but amplifies its meaning.

## Results/Discussion

### Participants

The main characteristics of the participants in the focus groups are summarized in the table below:

Table 1: Participants' profile

<p><b>8 Male IDU:</b>                      Median Age: 38.25                      Median Number of Years Injecting: 19.75                      Median Number of Drug Bags Daily: 11.38                      Median Number of School Years: 11.13                      % Homeless: 62.50%                      Main Drug: Speedball</p>	<p><b>20 Male NIDU:</b>                      Median Age: 42.50                      Median Number of Years Using: 16.30                      Median Number of School Years: 9.10                      % Homeless: 60.00%                      Main Drugs: Marijuana, Cocaine, Crack, Heroin, Barbiturics</p>
<p><b>8 Female IDU:</b>                      Median Age: 36.75                      Median Number of Years Injecting: 14.63                      Median Number of Drug Bags Daily: N/D                      Median Number of School Years: 8.88                      % Homeless: 50.00%                      Main Drug: Speedball</p>	<p><b>18 female NIDU:</b>                      Median Age: 38.63                      Median Number of Years Using: 12.43                      Median Number of School Years: 10.50                      % Homeless: 0.00%                      Main Drugs: Marijuana, Cocaine, Crack, Heroin, Barbiturics &amp; Methadone</p>

### Linguistic and Cultural Fine-tuning

Participant's accounts were employed to provide a Spanish and culturally congruent definition of stress and coping. This was a crucial methodological step to elicit information regarding these concepts since coping has no direct translation in Spanish, the language spoken in Puerto Rico. We had concerns about finding appropriate ways to elicit information regarding these concepts. Since the results of this research project are meant for comparisons with similar studies conducted in English, we need to be sure that we are collecting equivalent data.

### Definition of stress:

•We used the Spanish phonetic form of stress, *estrés*, which is widely used in Puerto Rico, presupposing that identical meanings were conveyed in the transformed word. We asked participant to define *estrés* or *estar estresado* (being stress-out) in their own words. They used words or phrases such as *incomodidad* (discomfort), *descontrol* (out of control), *ansiedad* (anxiety), *agitación* (be agitated), *tristeza* (unhappiness), *desánimo* (discourage), and *incapaz de canalizar situaciones* (unable to channel situations) to described stress.

•This set of words is consistent with the Webster's English dictionary (1997) definitions of stress (mental or physical tension or strain) and stress-out (tired, nervous, or depressed as a result of overwork, mental pressure, etc). We believe that this is also consistent with Lazarus and Folkman's (1984:19) definition: "Psychological stress is a particular relationship between the person and environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being."

### Definition of coping:

•To convey the idea of coping we used the word *bregar*. *Bregar*, which is roughly translated as to *fight*, to *struggle*, is also a widely used word in Puerto Rico and Caribbean Spanish. Colloquially, this word transmits the idea of dealing with situations or facing problems.

•This conceptualization concurs with the Webster's English dictionary (1997:306) definition of coping: "(1) to fight or contend (with) successfully or on equal terms or (2) deal with problems, troubles, etc." (p.306). Once again, *bregar* favorably compares to Lazarus and Folkman's (1984) definition: coping is defined as thoughts and behaviors that people use to manage the internal and external demands of situations that are appraised as stressful.

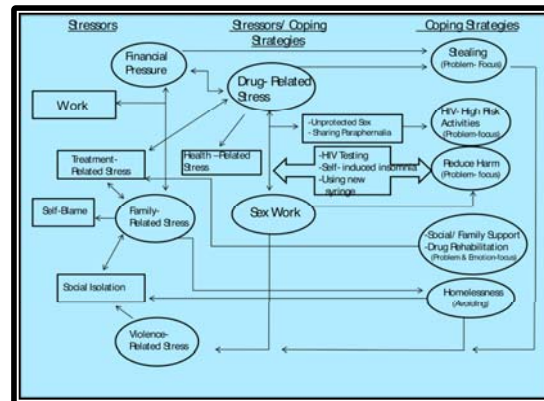
•We did not identify any comprehension problems with the use of *bregar* to elicit participants' experiences and conceptualization regarding coping strategies.

### Stress and Coping

The significance of a particular stressor or coping strategy was established based on two elements: pervasiveness and social/symbolic relevance (Ryan and Bernard 2003). On the one hand, the occurrence of a theme in the answers of the participants of the focus groups was taken as an indicator of its relative importance. On the other hand, the subjective meanings ascribed to a particular stressor defined its degree of relevance.

Diagram 1 shows the main daily stressors and coping strategies described by participants and how they related to each other.

Diagram 1: Stressors and Coping Strategies



## Closing Comments

Focus groups provide direct access to the language and concepts individuals use to structure their beliefs and ideas about a designated topic. Textual analysis of the responses permits us to identify relevant themes for each group. Qualitative analysis of each thematic category allows investigators to recognize commonalities and differences among groups that quantitative analysis cannot distinguish. The sources of stress described the focus groups participants tend to be inscribed within a drug-centered context. Financial, violence, family, treatment, work and guiltiness stressors are significantly shaped and exacerbated by all types of drug-related stressors. The expression and the meanings ascribed to these stressors significantly varied when considered gender and drug behaviors. Some of these differences seem to be also related to traditional social and gender roles.

The strategies participants described to deal with these stressors are also shaped by the centrality of drug stressors. The intensity of this vinculum produces coping strategies that not infrequently favor their health and social risks that in turn exacerbates stress. The link is powerful that in some cases the same element can assume either the form of a stressor or that of a coping strategy. Like stressors, coping strategies seemed to be mediated by gender and drug behaviors and are inscribed and rationalized within a context of social and physical violence, marginalization and scarcity of social and material resources. Results suggest that coping strategies are not naturally adaptive or maladaptive but a highly specific set of behaviors embedded and rationalized in a particular social context. Therefore to understand how coping could lead to risk behaviors, these strategies need to be evaluated in the specific stressful context in which they occur.

These findings have contributed a more sound founding for further analysis by showing the saliency of daily and chronic stressors among drug users and the feasibility of eliciting them in semi-structured interviews and focus group sessions in a manner culturally consistent with common local forms of communication.

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