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The Relationship between Housing Status and HIV Risk among Active Drug Users: A Qualitative Analysis

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Abstract

This paper examines the relationship between housing status and HIV risk using longitudinal, qualitative data collected in 2004–2005, from a purposeful sample of 65 active drug users in a variety of housed and homeless situations in Hartford, Connecticut. These data were supplemented with observations and in-depth interviews regarding drug use behavior collected in 2001–2005 to evaluate a peer-led HIV prevention intervention. Data reveal differences in social context within and among different housing statuses that affect HIV risky or protective behaviors including the ability to carry drug paraphernalia and HIV prevention materials, the amount of drugs in the immediate environment, access to subsidized and supportive housing, and relationships with others with whom drug users live. Policy implications of the findings, limitations to the data and future research are discussed.

Keywords

homelessness; housing; HIV; injection drug use; crack; qualitative

INTRODUCTION

HIV researchers have increasingly called for an examination of the way structural factors, including physical, social, cultural, organizational, community, economic, legal and policy aspects of the environment, impede or facilitate individuals' efforts to avoid HIV infection (Blankenship, Bray et al. 2000; Des Jarlais 2000; Sumartojo, Doll et al. 2000). One area in particular that has received increased research attention is the impact of homelessness or housing status on drug injection and sex related HIV risk (Robertson, Clark et al. 2004; Wenzel, Tucker et al. 2004; Aidala, Cross et al. 2005; Aidala, Lee et al. 2006; Corneil, Kuyper et al. 2006; Margolis, MacGowan et al. 2006). Estimates of prevalence of HIV among the homeless in the United States range from 3 to 19.5% with populations that are already at high risk for contracting HIV including homeless injection drug users, people of color, women and youth experiencing significantly higher rates of infection (Swartz 2003). Further, the homeless are at greater risk for a variety of health problems and less likely to receive adequate medical care, thus making those with HIV more vulnerable to opportunistic infections (Freudenberg 2000; Napravnik, Royce et al. 2000; Plumb 2000; Smith, Rapkin et al. 2000; Lim, Andersen et al. 2002).

Recent studies have found an association between homelessness and housing instability and a variety of HIV risk behaviors compared to similar populations with stable housing.

Homelessness and housing instability have been associated with increased numbers of unprotected sex acts (Aidala, Cross et al. 2005; Aidala, Lee et al. 2006; Margolis, MacGowan et al. 2006) and increased rates of sexual exchange (Aidala, Cross et al. 2005; Corneil, Kuyper et al. 2006). In addition, homeless women were more likely to experience physical and sexual violence, substance use disorder and HIV risk behavior compared to low-income housed women residing in Los Angeles County (Wenzel, Tucker et al. 2004). Among injection drug users, the homeless had increased rates of needle sharing (Lum, Sears et al. 2005; Corneil, Kuyper et al. 2006), had a longer period of time to drug injection cessation and shorter time to relapse to drug injection (Shah, Galai et al. in press), and were more likely to frequent shooting galleries (Metraux, Metzger et al. 2004). Many of these studies are longitudinal (Metraux, Metzger et al. 2004; Shah, Galai et al. in press), demonstrating that homelessness often temporally precedes risk behaviors, thus suggesting a causal relationship between homelessness and HIV risk.

However, “homeless” and “marginally housed” are categories with significant variation within them and without standard definition. Many researchers have noted the lack of operational definitions of homelessness sensitive enough to achieve important subgroup differentiation (Argeriou, McCarty et al. 1995; Marcus 2006). Early studies conducted dichotomous comparisons between the homeless and non-homeless ignoring important variations within homeless status. In contrast, Smereck and Hockman (1998) found significant differences in risk and HIV prevalence among on the street homeless drug users as opposed to those who resided in shelters or boarding houses. Others have included in their definitions of homelessness both the literally homeless, i.e. those who lack regular and customary access to regular housing, as well as marginally or precariously housed people including those living in doubled-up households, residents of cheap hotels and others whose housing situations are tenuous (Rossi 1989). Argeriou and colleagues recommend operationalizing homelessness as a continuous variable described by coordinates of time and place (Argeriou, McCarty et al. 1995).

Few studies have examined the association between housing stability of non-homeless drug users and HIV prevalence, HIV risk behaviors, access to medical services, or risk for homelessness (Smereck and Hockman 1998; Smith, Rapkin et al. 2000). Aidala and colleagues (2005) specifically examined the association between change in housing status and HIV risk behaviors over time among HIV positive persons. They found that persons whose housing status improved between baseline and follow-up significantly reduced their risks of drug use, needle use, needle sharing and unprotected sex compared to those whose housing status did not change. In addition, persons whose housing status worsened between baseline and follow-up had increased odds of recently exchanging sex compared to those whose housing status did not change.

Homelessness and housing instability can lead to HIV risk in direct and indirect ways. A direct way is through sex for housing exchanges. More indirect processes include the effects of homelessness and housing stability on sites where drug users inject or smoke crack. Homeless drug injectors who reside on the street or in shelters are more likely to inject in public places, where few HIV prevention materials (such as clean water and bleach for cleaning injection equipment) or norms are present (Weeks, Clair et al. 2001), and to engage in riskier injection practices such as sharing injection equipment or drug solutions (Bourgois 1998; Smereck and Hockman 1998). Homelessness may affect HIV risk even more indirectly as drug users may increase their drug use to cope with the stress of being homeless. Homeless drug users often live in neighborhoods with high rates of drug use, violent crime, and HIV infection, which may make reducing their drug use or implementing harm reduction difficult (Dickson-Gomez, Weeks et al. 2002). Stable, independent housing could lead to protection against HIV risk by allowing a context in which HIV prevention can be practiced, increasing overall psychological functioning, and decreasing the need to engage in sex exchanges to support drug use, secure

income or housing (Srebnik, Livingston et al. 1995). In other cases, having independent housing could lead to increased drug use if the lessee opens his apartment to other drug using friends and acquaintances and charges drugs or money for this privilege (Dickson-Gomez, Weeks et al. 2003). A more in-depth, qualitative exploration can provide insight into the processes by which variable housing statuses lead to greater or lesser HIV risk.

In this paper we will examine the processes by which different housing statuses can lead to HIV risk using qualitative data collected from a purposeful sample of active drug users in a variety of housing and homeless situations at baseline, three and six months. Data reveal differences in social context within and among different housing statuses that affect HIV risky or protective behaviors including the ability to carry drug paraphernalia and HIV prevention materials, the amount of drugs in the immediate environment, access to subsidized housing, and relationships with others with whom drug users live.

METHODS

The data used in this paper were drawn mainly from The Housing Status/Stability and HIV Risk among Drug Users study, 2004-2006, which explored the effects of housing policy on drug users' housing stability and status, and the effect of their housing status on HIV risk.¹ This material was supplemented from observations of and in-depth interviews about drug use behavior from The Risk Avoidance Partnership Project (RAP) that trained active users of cocaine and heroin to be Peer Health Advocates (PHAs) and provide harm reduction materials and information to their peers². Unless otherwise stated, results presented come from the Housing Project.

In the RAP project, a team of ethnographers (with masters or doctorate degrees in anthropology) conducted observations and interviews to evaluate the effectiveness of the peer-led intervention, and to document the activities of trained PHAs, HIV risky behaviors in high-risk drug use sites, and the dissemination of the prevention intervention throughout the drug using community. PHAs were recruited who were observed to be "central" in drug use networks in a previous research project or by field staff during the RAP project (Weeks, Dickson-Gomez et al. 2006; Weeks, Li et al. In press), in the hope that they would be able to disseminate the intervention to their peers and would be considered to be important and credible sources of information. Additional eligibility criteria for becoming a PHA included being 18 years or older, having used cocaine or heroin within the last 30 days, being able to bring in at least two members of their social networks for a survey interview, and willingness and ability to participate in PHA training. The RAP training curriculum consisted of 10 sessions including five, two-hour training sessions conducted at the ICR office, and five, two-hour field training sessions partnered with a staff member to practice conducting HIV prevention interventions with their peers in community settings. PHA outreach activities were documented ethnographically through written field notes of observed in-office and partnered field sessions and through informal and in-depth interviews with PHAs and their contacts. In-depth interviews were conducted with 61 participants. "Day in the life" observations were conducted with active drug users to document their daily routines, income generating activities, and drug acquisition and consumption in order to more accurately appraise the dissemination of harm reduction practices as well as contextual features which promote HIV risky behavior and discourage practicing harm reduction techniques. Over 154 observations were conducted with 55 participants, 28 of whom had participated in in-depth interviews. Interviewees were chosen

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for observations to reflect the ethnic and gender diversity of all project participants and because of their access to different types of drug use sites (Weeks et al. 2001).

In the housing study, we conducted longitudinal in-depth interviews with active drug users at baseline, 3 and 6 months to explore their housing status and stability over time, the effects of housing policy on drug users' access to housing, and how their housing status and stability affects their HIV risk and drug use behaviors. Targeted sampling was used to identify and recruit drug users in various housing situations including: 1) supportive housing 2) subsidized housing, 3) non-subsidized housing, 4) doubling up with family or friends, 5) homeless in shelters, or 6) homeless on the street. We defined "doubling up" as the practice of temporarily moving in with family or friends. Supportive housing was defined as subsidized housing with supportive services attached, such as job training, mental health or substance abuse treatment. We targeted recruitment in locations where populations of drug users with differing housing characteristics could be found. Drug users who were homeless on the street or in shelters were recruited from each of Hartford's shelters and soup kitchens. Drug users who were doubled up with family or friends, or housed in subsidized, non-subsidized, or supportive housing were recruited through street outreach, or from prior knowledge of their housing status from their participation in the RAP project. Participants were directly recruited by outreach worker/interviewers (Puerto Rican and African American) or project ethnographers (African American and white with masters or bachelors degrees in anthropology) who gave them condoms and bleach kits, engaged them in general conversation about their risk, and assessed their current living situation and general eligibility for the study. Those who appeared eligible and interested in the study were briefly told that they might be eligible to participate in a series of three in-depth interviews about their housing situation, drug use and HIV risk and given an appointment to come for full screening and informed consent. Thirty-six of the Housing participants had participated in the RAP study. We attempted to recruit equal numbers of drug users from each of the housing statuses (approximately 10-11). In spite of efforts to recruit equal numbers from each of the housing statuses, it proved much easier to recruit participants who were doubled up with family or friends than from other housing statuses, with the exception of homeless drug users residing in shelters. Interviews revealed that doubled up was a category with significant variation. Therefore, additional participants were recruited to reflect differences in relationships with the renter of the apartments. Not surprisingly, supportive housing proved to be the most difficult category from which to recruit participants given the limited number of supportive housing programs currently available. Written informed consent was obtained from all participants in both the RAP and Housing projects prior to baseline interviews. The research was approved by the Institute for Community Research's Institutional Review Board (Table 1)

Baseline interviews explored participants' housing histories over the previous two years focusing on: reasons for moves, evictions or housing changes, types of public assistance, social services and housing subsidies applied for and received, the amount of time elapsed between application for and receipt or denial of housing or other social services, and reasons given for denial. To help participants construct their housing histories, we asked participants to describe their current living situations and then moved back in time. To explore perceived housing stability, we asked drug users about what makes them feel stable and secure in their housing situation, and how likely they feel they will be residing in the same location in three months. Perceived housing stability was also explored through questions concerning the safety, violence and victimization, and power relations in particular housing situations. Participants were asked about whether or not there were any times they felt they were taking more HIV risks or using more drugs, what their housing situations was during those times, and if they felt their housing situation had anything to do with their level of risk or drug use. They also were asked whether they had ever exchanged sex for housing, drugs or money. Project ethnographers conducted baseline in-depth interviews which took approximately 1 ½ hours to

complete. Follow-up interviews took approximately one hour. Participants were paid \$25 for each interview completed.

Three month follow-up interviews explored changes in housing status, access to housing programs, and perceived housing stability since the original interview. Baseline interviews were reviewed prior to follow-up interviews so that interview questions could focus on participants' specific situations. We also explored changes in drug use and HIV risk since baseline and reasons for any change in risk or drug use behavior. Six month follow-up interviews used the same interview guide as three-month interviews. Again, three-month interviews were reviewed so that questions followed up on any housing changes planned or made. Three-month interviews also included a brief quantitative survey to collect basic demographic information including age, income, length of time living in Hartford, education level, and quantity and frequency of use of a variety of different drugs. This brief survey was added after it was determined that it was difficult to quantify such information from qualitative interviews. Six-month interviews collected information on income, and quantity and frequency of drug use in the past month.

In order to determine the accessibility and affordability of housing in the city, we also conducted brief telephone interviews with landlords or management companies with units to rent in Hartford regarding the monthly rent of available units, the amount of security deposit required, whether they accepted housing subsidies, application fees, and what kinds of background checks they ran on applicants. An on-line and newspaper search of apartments for rent was conducted and a list of phone numbers generated. Research staff also drove around Hartford neighborhoods and noted the address of apartments with For Rent signs. Telephone numbers on For Rent signs were added to the list. Each number was called a minimum of five times or until the person in charge of renting the unit was located. Informed consent to participate in the brief telephone interview was obtained verbally and refusals were documented.

All in-depth interviews were tape recorded and transcribed verbatim. Observations were recorded in detailed field notes shortly after leaving the field. All text data were coded and analyzed for key themes and patterns of response using Atlas.ti software (Muhr 2003-2006). Interviews and field notes from both projects were first coded for demographic variables, and type of interview or observation. Interviews for the Housing project were additionally coded according to participants' housing status at the time of the interview. Data were then coded a second time for content. This level of analysis coded for broad categories, for example HIV risk behaviors, housing status, social dynamics within living situations, drug use sites. Interviews were then coded a third time to further refine categories and emerging themes. For example, the doubled up category was further refined to include doubling up with sexual partners, family or friends. In the housing project, a fourth level of analysis occurred where summaries were written for each participant that described his or her housing history, including the two years previous to baseline and within the study period, welfare or other benefits received, work, relationships, HIV risk, and drug use. Each participant's changes in housing status, and the housing subsidies or other benefits applied for or received were then quantified by completing a Housing Summary Checklist. These data were entered into SPSS and analyzed for descriptive statistics. Housing status was recoded to reflect levels of housing stability. Homeless on the street or in shelters were coded as homeless, doubled up remained a separate category, and subsidized, non-subsidized and supportive housing were recoded as independently housed. Those who changed from homeless to doubled up or independently housed, and those who were doubled up to independently housed were considered to have improved their housing status, while those who moved from independently housed to doubled-up or homeless, or those who moved from doubled-up to homeless were considered to have worsened their housing status.

RESULTS

From the RAP project, observation participants were 48% African American, 48% Latino, 4% white and 40% female. In-depth interview participants were 38% African American, 40% Latino, 22% white, and 49% female. From the Housing Project sixty-five drug users were interviewed at baseline. Forty-six percent of the sample was African American, 46% Puerto Rican, 8% non-Hispanic white, and 46% women. Fifty were located for follow-up interviews at three months. Of those who were not located, four were confirmed to be in jail, and one was confirmed to have moved out of state. Excluding those individuals who were in jail or had moved results in an overall retention rate of 83%. Forty-one were located for interviews at 6 months. Of those who were not located at 6 months, two were deceased, two were confirmed to have moved out of state, and five were in jail. Excluding those who had died, gone to jail, or moved out of state resulted in an overall retention rate of 73.2%. Of those who completed all three interviews, 49% had moved at least once during the study period, while 18% had moved 4 or more times. Twenty-four of the moves resulted in a change in housing status. Half (12) improved their housing status while the housing status of half had worsened. Most of these status changes were from homeless to doubled up (often temporary situations in which participants found themselves homeless on the street or in shelters within a few weeks). Only three participants moved from being homeless to having independent housing, while three moved from being independently housed to being homeless.

Mean age of participants was 43 years (s.d. 6.8 years). Participants were low income with 63% having earned less than \$500 in the last month, and 94% having earned less than \$1000. At three months, 54% had smoked crack in the last 30 days, while 30% had injected heroin. Although current drug use was an eligibility criterion at baseline, many participants had entered treatment or stopped drug use by their 3-month interview. There were differences in frequency of drug use among participants with different housing statuses. Homeless on the street used both heroin and crack more frequently than drug users in other categories. Also noteworthy is that those who were independently housed but did not receive a rental subsidy used crack more frequently than those in any other housing status except for those who were homeless on the street. None of the differences reported above were statistically significant. Given the small sample sizes, particularly in some housing categories, comparisons should be interpreted with caution. However, explanations for these results are illuminated by the qualitative data explored below. We were unable to quantify HIV risk from the qualitative housing data. However, participants' changes in HIV risk due to changes in their housing status give an indication of the risks associated with different housing statuses (Table 2)

Shelters

Many participants who were residing in shelters during the study period, or who had resided in shelters in the past, complained that it was difficult, if not impossible, to refrain from drug use in that environment. They reported that the majority of shelter residents were also drug users, and that people selling drugs were often located right outside the shelters' entrances.

Ethnographer So, what kind of problems do you see around the shelter?

Carlos³ (Puerto Rican, 24 years old) Just right in front of shelter, there's a drug spot right there.

Ethnographer Does it make you uncomfortable?

³This and all other names used in this paper are pseudonyms.

Carlos Not really because I just keep walking. The only thing that makes me uncomfortable is like when people go around asking if I got anything for sale or when I'm walking through to get to the shelter, they be like "Yo, I got you papi. What you need?" That shit right there gets me mad, you know, cause it's like I don't need nothing and if it was like once or twice, but it's the same people asking me all the time they see me even after you tell them you don't mess with that stuff.

Many participants resided in shelters after they were released from jail. Many reported that they stopped drug use in jail, but started again both because of the stress of homelessness as well as the pervasiveness of drugs in the environment, as Jose describes.

Jose (Puerto Rican, 38 years old) It's drugs. That's where you see 'em at, drugs. That what you see in the shelter, drugs of all kinds, crack heroin, cocaine, weed, alcohol and pills. You see that in all the shelters.

E ...For yourself, what comes first? The drugs and then living in the shelter or the shelter and the drugs, or do they both?

P ...You know, drugs come afterwards. I think, when I do drugs it's because of the problems, so...I get released [from prison] and I feel good...[I]f I'm clean and I got everything, I got jobs, I don't even worry about drugs, you know? Drugs for me, it's nothing. I know I can stay out of it. I can, I know I can.

E But, the times that you are living in a shelter and you're using drugs...

P It becomes to use, it becomes. Not right then and there or right away but if you stay in a shelter long enough it becomes for you to use drugs, yeah.

Some participants described engaging in sex exchanges to support their increasing drug use while staying in a shelter. Others described exchanging sex for a place to stay the night. However, as Jerry, a 40 year-old African American man, describes below, the sense of hopelessness and stress over his homeless situation also contributed to his participation in sex work.

Ethnographer Okay. Have you ever had to exchange sex for drugs, money or a place to stay? Have you ever had to hustle out in the street for a place to stay?

Jerry Um, well it depends. Hustle out in the street...Somebody would always let me stay the night, you know, if I needed to. I'd go to my friend Tom, I go to Roger, or I just stay in the shelter...As far as the drugs is concerned, I never had to do anything, whatever, to you know, afford that. It was just sexual favors for money or whatever, you know?

E ...And most, would you say you still do that or would you say that was more a thing of when you were out in the street homeless?

P That's when I didn't care, that's because I was homeless. That's the reason why I was using, to medicate myself...worried about ever obtaining an apartment. Which seemed like it was so far out of reach, so I gave up, you know?

Many shelters have rules against possessing or storing drug paraphernalia in the shelter. As a result, participants described storing their syringes in abandoned buildings or other semi-public locations around the city. This results in potential risk of transmission if a drug injector cannot find his syringe later and borrows one to get rid of heroin withdrawal symptoms, as Angel, Puerto Rican, 42 years old, describes below. It is also possible, as Angel acknowledged, for

other drug users of unknown serostatus to find the hidden syringe, use it and replace it without his knowledge.

Angel I used to do that [hide syringes]. I used to have certain spots but what I usually do is I make sure that the spot that I put it in, I make sure that no one touches it 'cause a lot of people will find it, okay, use it...I usually mark it mine...and wherever I put it, I look around good nobody's looking. I hide it and...if I put the syringe that way...that's the way I gotta see it tomorrow. If I come back and that top is this way, not that way, somebody been there. They used it.

Ethnographer And what would you do in that situation?

Angel Throw it away or try to exchange it... I'm very precautions, man. For real, long as I been doing this. I had a lot of my buddies pass away on me already. The reason why I caught the Hepatitis C was that day I was aggravated, it was early in the morning. I hid it [the syringe] somewhere, couldn't find it and I went to my buddy's house and he told me he says well you know I have the hepatitis C. I used the needle and guess what? A month later I get tested...I caught it [hepatitis]. Caught it off of him.

Day in the Life observations and in-depth interviews conducted for the RAP project reveal that some homeless drug users avoid using drugs in abandoned buildings because of the aggressive policing of abandoned buildings and the stiff penalties for being caught trespassing. Many reported that while using drugs in abandoned buildings was common ten years prior, they now prefer to use drugs in the lots behind buildings, in alleyways or even on the street. They reported that abandoned buildings may have only one exit and therefore escape from the police is often difficult, whereas getting high in more public places offers more opportunity for escape. For example, May, a 45-year old African American woman, who prefers to get high behind a fast food restaurant's dumpster said, "I don't like to get high in no buildings, only one way in and one way out." Open spots, however, are also more visible. Therefore, drug users are even more rushed to prepare their drugs, inject them and move on. They reported and observations confirmed that they had even less time to engage in safer injection practices such as cleaning their syringes, cooking their dope, or preparing clean injection sites than when injecting in an abandoned building.

Street

Fifteen participants reported that they stayed in public places not meant for sleeping such as parks, cars, or abandoned buildings. Some said that they avoided shelters because they disliked the curfew and other rules. Others reported staying on the streets when there was no room at the shelter. This was a particular problem for women as there were fewer shelter beds for women in the city. Still others said that they were too ashamed to stay in a shelter. One said that the shelters were located far from the neighborhoods where he grew up and felt most comfortable. Three said they avoided shelters because they disliked the conflicts between residents. However, homeless participants who stayed on the street or other public places described similar problems in avoiding drug use and reducing their risk.

Ethnographer So in your opinion,...when in your life do you think you put yourself at greater risk for HIV?

Jose (Puerto Rican, 42) When I was on the streets it was really bad. Because people I'm around...They constantly talking about it, even though sometimes you don't want to talk about it, you're running a totally different conversation with somebody else and here comes this person "Oh, I have this, it's good, it's great", and half of the times I didn't carry around the syringes all the time, so-and he'd probably say "Look, it's a one shot deal, either you use mine,

take it now or I'm leaving." And, you know how it is sometimes, you just end up squirting it out with water, you won't even use the bleach.

Throughout the study period, Jose alternated his days between staying in an abandoned building, a friend's house and in a shelter.

Increased addiction may have contributed to some drug users preferring to sleep on the streets rather than in a shelter. In particular, those who avoided shelters because they disliked the curfews, may have found it difficult to interrupt their drug use or income generating activities to enter the shelter at the appointed time. However, many participants reported feeling more depressed while living on the street than in other housing situations, and therefore found it more difficult to take care of their overall health, including avoiding HIV risk or controlling their drug use.

Raymond (Puerto Rican, 37) Lost my pride. Lost everything. Feel like a run down old loser from the streets. Someone that has nothing. Someone that don't deserve anything...I used to always eat lunch, just now lately I don't have the appetite for eating anything. Just pretty much sad... This is me twenty four hours a day, drugs...I will never change. It's sad.

Bernice (African American, 54) When I was out there in the streets and I just wanted to escape so I used more, but now it's a little bit better.

Raymond moved from the shelter to the streets during the study period, and felt that his drug use had increased during that time. Bernice improved her housing status by moving from the street to staying with a friend.

Those who slept in abandoned buildings had difficulty controlling the use of the space, and often found that their living space became a shooting gallery as Dave, a 44 year-old, African American describes. Shooting galleries have been variously defined in the literature, but often refer to semi-public places such as abandoned buildings where groups of injectors gather, and where syringes are shared and sometimes rented (Carlson 2000).

Dave They had boarded it up [the abandoned building] because the kids was breaking the windows. It just opened up [i.e. the boards had been removed so that people could enter] when I came home...I come home from jail, there were bags everywhere. It had just turned into a shooting gallery. So, then I spoke up and talked to the girls on the third floor. They was okay for me to be there as long as I keep people out. But, then it's hard to control people when they say you don't pay rent here, you know?

Shooting galleries are places, as mentioned above, where high-risk injection practices are likely to occur. They are also places where drug users might find it difficult to control or abstain from drug use.

Doubling-up

As mentioned, the easiest category from which to recruit participants into the Housing study was temporarily doubled up with family or friends, indicating that this is a particularly common housing strategy for poor drug users in Hartford. Whether or not temporarily doubling-up with friends or family is a housing situation that leads to greater or lesser HIV risky behaviors, however, depends on the type of relationships the drug user has with the people with whom he or she is living, and whether roommates are also drug users. Participants who lived with non-drug using friends described abstaining from drug use in the apartment out of respect for their friends and their friends' families. In some cases, as Chris, a 53 year-old Puerto Rican man describes, this can lead to drug users' limiting the amount of time they live with friends.

Ethnographer Okay, so while you're staying with your friends, are you helping them out with the rent or anything or?

Chris Well, I didn't. Well, no, because I just move in a couple of weeks ago. But when I get my check, you know, I just go and they know I'm moving out and I just got to give them some money for staying there...They want me to stay there but...I can't because for what I use and I like to be on my own...and especially if he got his wife and it don't look good, you know.

More often participants described staying with friends and acquaintances who also use drugs. Participants described finding it difficult to refrain from or cut down on drug use when constantly surrounded by the drug use of others living in the same location.

Ethnographer So what else is going on?

Carla (African American, 48) Um, nothing. I'm feeling better about myself. I am kind of picking myself up you know, the way I dress and I do my hair. You know things I wasn't doing because I want things and I want clothes and shoes, which were not in the crack house [where she is living]. I am tired of it. I am tired of the attitudes that come along with crack...just in my household. And that's like the worst because it's like a daily thing...Where am I going? In my room, because the little crack addict in me is going to say, "Hey, they are smoking out there." I find myself going to the bathroom in the opposite direction, going to see what they are doing, not really going to the bathroom.

In addition to the difficulty controlling their own drug use when living with drug users, those who doubled up with drug using friends described being pressured to provide drugs for the lessee of the apartment. Participants described their inability or unwillingness to provide drugs for the person with whom they were staying as a source of considerable conflict within the household, as Daisy and Tina describe below. In both cases, the pressure to provide drugs to roommates escalated participants' own use.

Ethnographer You said [the people you were living with] were both users?

Daisy (Puerto Rican, 43) Yeah, so it's not good. It's like you are constantly running. Trying to find and get more and more and more and it's terrible. Terrible feelings, it really is.... As long as we had drugs and they had money it was good. [If not] they have attitudes, arguments and fights.

Tina (White, 35) Let me see, [I lived with her] over a month, two months and I don't know how I did that. She ...shot up and I don't shoot up. She shot up heroin...This girl was doing a lot of pills, ...Xanax and stuff like that. So she had me taking, I was taking pills. I went to my doctor. I got a prescription for these pills. I got hooked on pills. Um, I've been using, sniffing heroin on and off since about 11 years, I'd say 11, 13 years and I never shot up. I shot up with her. When I got my check she wanted me to spend all my money, she wanted me to go out and get more money, you know, prostituting, you know, stealing, whatever. She didn't care and she just...wanted more and more and more and more until I knew it, I never did more than 3 or 4 bags a day, I was doing like 8 or 9 bags. I was hooked on pills. It was a mess, it was a mess. I could never find my ID for methadone. I was missing two days in a row all the time. It was a mess.

The demand for drugs is often considered payment for allowing a drug user to use drugs at a site or to spend the night. Daisy and Tina therefore may have felt pressure to provide drugs not just to avoid conflicts, but also because they were afraid of being thrown out of the apartment. Other participants described more formal agreements with drug users with whom they were doubled up, where they paid a portion of the rent each month, paid utilities or other bills, or

gave their food stamps to pay for groceries. However, this did not necessarily prevent apartment lessees from making more demands for money or drugs in the middle of the month, even in cases when more formal agreements had been made at the beginning of the month, as described by Terry, 42 an African American woman.

Ethnographer What do you think are the reasons why you've moved around so much?

Terry Uh, staying with people is difficult you know... You can't really get comfortable especially if they are a substance user as myself. You know, like I said, stuff is going on, they want to put you out. I've been put out in the pouring down rain after I gave them \$150. Because I came in the house one night and I didn't have enough [drugs] to share and I didn't have enough. She got mad and, "Get out of my house." And I said, "Give me back my money." "You can have your money." So she never gave it to me and every time I would see her I would ask her about my money.

Drug users who double up temporarily with friends may not feel they have any recourse when they are kicked out because they are not on the lease, and may be breaking rules in staying there, particularly if the renter of the apartment receives a housing subsidy. They are also vulnerable if the lessee of the apartment is evicted for not paying rent or for substance use within the apartment as described by Carla below.

Ethnographer So what else besides the phones got shut off?

Carla The lights are about to... She is in a program [to help pay the utilities]. They made arrangements. She didn't comply with the first arrangements so now they increased it because it's [the bill] so high. It's either she pay an increase or they are going to cut her off and they won't turn it on until she pays in full... This has been going on for quite some time now. They came to the house and cut the lights. You know and I keep paying. I keep saying I am not going to, but I don't want her to put me out on the street for real... I am homeless as it is, but I mean it's just to the point where I am really about to be [literally homeless]... And I am paying someone that is taking advantage of their access because I get mine [SSI check] on the 1st and hers is on the 3rd, shit. She going to hold my rent [until she gets her check] on the 3rd which never comes. You feel me. Because the money that she spent on the 1st, by the time the 3rd come she is well into her [lottery] ticket thing, she ain't thinking about no damn rent [i.e. she has already spent the money Carla gave her on lottery tickets]. Then she don't have enough to cover all them two hundred and something dollars she got from everybody else [living in the apartment].

Four participants (2 men and 2 women) reported exchanging sex for housing. Like exchanging drugs for housing, participants described doubling up in exchange for sex as a very unstable situation because the lessee of the apartment can throw them out at any time. Exchanging sex for housing is also a situation with direct risk for contracting or spreading HIV.

Mark (African American, 49) And, then I kind of knew different people, you know, um, like to play around, you know? Have sex with guys. They have a bed with apartments and stuff and a lot of times I would stay with them. But, I got tired of that. I still do it, mind you, but I just got tired of the everyday thing, plus after a while you feel so low, you know what I mean? You don't have a place, you're HIV, you don't want anybody to know that and then you're selling yourself for a few dollars and a place to stay.

In contrast to living with drug using friends, participants described doubling up with family as a more secure living situation. Family members placed fewer demands on them for money or drugs. While family relations were often strained because of participants' drug use, participants reported a general expectation that family members would give them shelter out of a sense of

obligation. Because there was no pressure to provide drugs in order to spend the night, participants reported being able to reduce their drug use when staying with family members.

Mary (African American, 38) I've been staying there with [my mom] now for two months... Because I've been trying to slow down on getting high and I know if I stay over this way with her, it keeps me from getting high everyday and running the streets, being at this person's house, have to try to get enough 'caine or enough money to give this person for staying the night, so I mean I've been doing okay.

When staying with parents or children who did not use drugs, participants often described trying to control their drug use by limiting use to outside the home and cutting back on the amount they used. The main reason given for this was that they wished to show respect for family members who did not use drugs, and to avoid being a bad example for children to follow. Lisa, a 50 year-old African American woman who has not been able to abstain from drug use for ten years since her husband passed away, described how living with her daughter and grandchildren helped her to control her drug use. Similarly, Mary, 38 African American, described cutting back on her drug use while staying with her mother and teenage daughter.

Lisa I thank God that I still have the strength not to do [drugs] in my daughter's house. I love my grandkids and I love my daughter and I think that my drug use has already brought us farther apart from each other. I done got shot and everything. My daughter saved my life, [she took me] you know, to the elevator and get me downstairs to the ambulance and it was because of drugs. So, I think I already put a bad enough scar on her for my drug use. And, when I do it I go to [someone else's] house...because like I said, my daughter is not stupid, you know? Because when I first got out of jail I had went there and stayed out all night and the next morning, "You know you can't be doing this." You know, "I'm going to have to ask you to leave."

Mary Right now, I'm around my daughter, and it makes me feel good, makes her feel good that she see me every morning...Most of the time I'm there when she come home from school. Like today, I told her I wouldn't be. I'm going to act up, right? So, I told her that, but she's staying after school because she does computers. My daughter wants to be a doctor.

Ethnographer You're going to, what do you mean by you're going to act up?

Mary When I have a little money in my pocket and I get out the house I go and act up. I go get high a little bit, and then by nine o'clock I be back at the house. I learned not to, I've been trying not to stay out all night, stay away from the house two or three days. I'll stay out a couple of hours and then bring myself in, instead of running around all night and getting high. I don't do that no more.

A study comparing out of treatment crack cocaine using women who were living with and caring for children with those who were not living with their children found that non-caregivers reported higher frequencies of drug use (Lam, Wechsberg et al. 2004). The study used a cross-sectional design limiting the interpretation of findings regarding whether mothers were separated from their children because of their more severe drug use and other risk factors, or whether drug use and other risk factors increased as a result of the loss of their children and the lack of accompanying parenting responsibilities. Results from this study, however, indicate that parental responsibilities and living with their children may motivate women to control their drug use.

Abstaining or limiting drug use, however, was not common for participants who lived with family members who use drugs. Participants who lived with drug using family members

described a context in which it was particularly difficult to control drug use or maintain sobriety.

Ethnographer And when you lived with your aunt, how many people were living there with you?

Roberto (Puerto Rican, 37) My aunt, her husband, me and my mother in the one-bedroom apartment. My mother...took the living room as...her own room, so she got her small bed over there...and I sleep in the sofa next to her...I came from Puerto Rico from the program but my aunt was doing drugs and I was, I used to see her smoking [crack] so I started again. Back in the day they used to give you the state check, remember they give you like \$225, then they give you \$75 on the 15th, so we used to smoke it.

Maritza (Puerto Rican, 38) When I came out, like I said, I was in jail for ten months, I came out clean. I stayed clean for three months without methadone, nothing because I was staying at my sister's house, but then I have another sister that's an addict and she was using, active, so she would come around and I would give her rides and give her money and from seeing that, I guess I fell into it [using heroin], you know, and then I did something [relapsed] and then I left my sister's house because once I started using, I don't like to be around my family because the kids and stuff and I don't like the kids to see me. I don't have kids, I don't like my nieces and nephew to see me like that because they look up to me, you know? So I left my sister's house and that's when I got on the clinic [for drug treatment].

As Maritza explains, non-drug using family members can serve as a motivation to abstain from drug use even in cases when other family members contribute to a relapse.

Independently Housed

Having independent, permanent housing has been associated with decreased drug use and sex and drug related HIV risk in the literature. However, as indicated by statistics presented above, there is a great deal of variability in drug use among permanently housed participants, with those who received housing subsidies, or housing subsidies with supportive services, using drugs far less frequently than those who were independently housed but received no subsidies. In fact, those who were housed but received no subsidies smoked crack more frequently than drug users in any other category except for those who were homeless on the street. While quantitative comparisons in drug use between those in different housing situations should be treated with caution, data from ethnographic interviews reveal differences in drug use behaviors, the use of apartments as drug use sites, and motivations to keep housing among participants.

Some participants described having turned their apartments in the past into drug use sites where they allowed other drug users to use in exchange for drugs or money. Having an apartment allowed them access to more drugs than they could get by hustling on their own, particularly if the apartment was opened to several drug using friends or acquaintances. Drug use can escalate as a result, as Jose, a 44 year-old Puerto Rican man describes, creating health risks and eventually leading to eviction as drug use takes precedence over all other activities.

Jose When I moved there I was clean. Then I had a relapse so I was smoking crack. And my apartment at that time...you get high you...gotta...give me some you know, like pay the house...I got to a point where...I hit rock bottom...I'm talking about I didn't have shit. I had no clothes. I didn't have nothing man. I had no food, no money, all my rent. I was about to get evicted. Matter of fact I did get evicted...Crack is a substance that puts you low down. It takes your dignity. It takes everything from you, man, and like I told you my house I had like an in

and out. And then when I finally stopped...people wouldn't stop coming to my house. That's the worst part 'cause you want to stop and people knocking on your door.

As Jose indicates, limiting drug users' access to your apartment can be difficult once it has become known as a drug use site.

The observed difference between drug use among those who were independently housed and received subsidies as compared to those who did not might be due to the fact that those who did not were more likely to open their apartments up as a drug use site. Participants who had a history of significant periods of homelessness were strongly motivated to maintain their housing once they succeeded in obtaining independent housing (de Moura Castro, Convey et al. 2006). Many of these received housing subsidies through shelter caseworkers. They were highly motivated not to lose their housing subsidies after having waited several months or even years to receive them. In addition, as described by Jerry below, eviction may have seemed inevitable to those without housing subsidies.

Jerry (African American male, 40 years old) That same roommate moved in. We was paying rent. I was paying a greater portion. I was paying \$300, he was paying \$125. He stopped paying rent. I didn't know anything about DSS or rental assistance or whatever, you know, because if I would have known anything ...then I could have went down and I could have filed for the state financial assistance or supplement or something...and I could have paid the other rent. So, instead of paying all the rent I was paying \$300. I was not paying the \$125. I couldn't pay that, so they [landlord] let it go a couple a months without paying that. I didn't know. I was not thinking to ask my social worker what kind of assistance I could apply for...so I got frustrated and then I just gave up. I stopped paying rent. I relapsed, started smoking drugs...So, I was evicted.

The average rent for a one-bedroom apartment in Hartford in 2005, based on data from the brief telephone interviews, was \$683 (s.d.\$194). As reported above, 63% of our participants reported earning less than \$500 in the prior month, while 94% earned less than \$1000. If we consider the measure of rental affordability to be a maximum of 50% of an individual's income, the average one-bedroom apartment was economically out of reach for nearly all our participants.

Those participants who received housing subsidies after a long period of homelessness described doing a number of things in order to maintain their housing such as cutting down or abstaining from drug use, and limiting access to their apartments by drug using friends. Participants reported that they also used less drugs because they had less stress than when living on the streets.

Ethnographer Do you think the [supportive housing program] helped you [to be stable in your apartment]? To get into that mode of being stable or do you think it was something else?

Roger (African American, 53) Well it got me started because when I didn't have an apartment I was in the shelter and that was unstable too. I mean I was still doing drugs and I was in a shelter and on methadone and just being around that type of people you know what I mean? Even though I was on methadone somebody say, "Come on. Let's go get high," you know I'd go get high [because I was] frustrated and bored, you know, so when I got my apartment I don't have that type of activity in my house.

Ethnographer So what do you think were the key factors to make things stable for you once you got out of the shelter?

Roger I guess that's being clean. That's the main thing. You know, being clean and being keep my apartment, you know, together. You know pay my rent on time, pay my bills on time, that keeps me stable. See I don't have to worry about it day to day where I'm gonna live at...

Ethnographer So it might have been just the experience of that too.

Roger Yeah, it was the experience...Being in that situation. I don't never want to be in that situation again, so that's what helped me out.

Ethnographer And how about your drug use? Has that gone up or down?

Pat (African American female, 42) Really, it's gone down and I think it's because I'm a little bit more happier... You know, and I haven't really had much money either. And I had got a shut off [letter] for my lights and I had to pay that. One thing about me, I use, but I always try to maintain...especially since I had that little experience with being homeless...I'm just trying to not really get back into that mode where I'm like at the bottom... You know, it don't even have to be big thing, but sometimes you have, you can say you have something to live for. So, when I didn't have my apartment I was really using a lot of drugs. Now, that I got my apartment and things been a little bit better.

Ethnographer When you didn't have your apartment and you were using more drugs, where were you using them? What's the place you were using them?

Pat Different friends' houses, which I was really uncomfortable doing.

Ethnographer How about now? Where do you use now?

Pat At my house.

Ethnographer Do you have any friends come over and use?

Pat Never. I can't. I don't feel comfortable with that. I never did. 'Cause I know a lot of my friends they have so much traffic in and out of their house and I just, I think it's just because I don't like people in and out of my apartment...

While participants described it being difficult sometimes to keep drug using friends and relatives out of their apartments, those with independent housing were able to control the environment in which they lived to a much greater extent than those without stable housing. They could prevent drug use by others in their home as Roger and Pat described, which helped them control or abstain from their own drug use, whereas those in shelters or doubled up were constantly surrounded by drug use. In addition, those who still used, like Pat, were able to use in a more controlled setting where clean water and bleach for injection were available.

Many participants reported that having more responsibility and having to pay bills helped them to control their drug use. As Pat implied, paying bills meant she had less money to spend on drugs. Carol, a 33 year-old African American woman expressed that having a job also helped her control her drug use because she had less idle time on her hands. Shelters often require residents to leave in the morning and do not open their doors until late afternoon or evening. Homeless and unemployed residents, therefore, have to spend long periods of time on the street, where drug use and selling is prevalent, with little to occupy their time.

DISCUSSION

Results from this project confirm the relationship found in many quantitative studies between homelessness and HIV risk. Those who lived in shelters or slept on the streets, abandoned

buildings or other public locations not meant for sleeping described living in a context where drug dealers were constantly trying to sell them drugs, and where drug use was ubiquitous. They therefore found it difficult to abstain from using. Many further reported that the stress of being homeless and their hopelessness at ever acquiring permanent housing caused their drug use to escalate. This was particularly the case for those who stayed on the streets. Many on the street homeless reported that they did not sleep in shelters because they did not like the rules, while others reported that there was no space available for them in the shelters. All participants who slept on the street described a cycle in which the stress of living on the street and their greater exposure to drug use led to their own ever-increasing use. This suggests that emergency shelter, while certainly not a long-term solution to homelessness and also an environment that makes avoiding drugs difficult, can provide some protection from chaotic drug use.

More funding to provide sufficient numbers of beds for those who wish to sleep in shelters is needed, particularly to increase the number of beds available for women. Of the seven homeless shelters in Hartford, only two offered beds for women. Active outreach to bring on-the-street homeless into shelters or shelter services is also needed. For those who still choose to sleep on the street rather than in shelters, connection with shelter caseworkers to work on accessing permanent housing or other supportive services might help mitigate the sense of hopelessness that on-the-street homeless feel. Of course, lack of success in obtaining permanent housing due to long waiting lists and inadequate funding of housing subsidies and supportive housing programs might lead to even greater frustration and hopelessness among the homeless. Ultimately, more funding of permanent, supportive housing for chronically homeless substance abusers is needed.

Rules against carrying drug paraphernalia, such as syringes, and in some shelters, even bleach, cookers, cotton and water contribute to HIV risk among homeless drug users. Participants who resided in shelters reported sharing syringes, or hiding syringes in abandoned buildings for later use. There is a danger that other drug users could use the hidden syringes, or that they will not be found when needed. Rules prohibiting the storage of syringes and other paraphernalia are designed to prevent drug use within the shelters in order to increase the safety of all residents and staff. Alternatives to banning drug paraphernalia altogether, however, could include providing locked places to store syringes for safekeeping that could be collected after leaving the shelter, or satellite syringe exchange programs where used syringes could be deposited in biological waste containers upon shelter entry and exchanged for clean syringes upon exit in the morning. In addition, mental health and substance abuse counseling, and HIV risk reduction could be provided in shelters to help drug users control or abstain from drug use, and reduce drug related HIV risks.

Temporarily doubling up with family or friends is a housing status with considerable variability. Whether doubling up serves as a factor protecting against chaotic drug use and HIV risk (relative to those residing in shelters or on the street) depends on the relationship to other people living there, whether they are drug users, and particularly if the apartment is a drug use site. Previous research studying high-risk drug use sites conducted by the research team in Hartford showed that there were more prevention norms and materials, such as clean water or bleach for cleaning syringes, in private drug use sites, most frequently the apartment of a drug user opened up to friends and acquaintances, than public drug use sites such as abandoned buildings (Weeks, Clair et al. 2001). However, private sites also had a number of competing social dynamics that impeded harm reduction norms and practices (Dickson-Gomez, Weeks et al. 2003). Gatekeepers of private sites saw providing a space for drug using friends to use both as an act of reciprocity and friendship, and as a business in which they were paid drugs or money for the privilege of using the site. Participants in this study who stayed with drug using friends reported feeling pressure to provide drugs to the lessee of the apartment, resulting in escalation of their own drug use. They sometimes were pressured to provide sexual favors

in order to stay there. In almost all cases they were very insecure in their housing and felt that they could become literally homeless at any time, either because the apartment lessee was unsatisfied with what they were providing, or because the lessee was evicted from the apartment for drug use, selling or not paying rent.

Participants reported controlling their drug use and other risk behaviors when staying with non-drug using family and friends because they recognized the harm their drug use did to loved ones. Whether their staying with family members is also good for the emotional wellbeing and health of family members is beyond the scope of this project and a question for future research. This protective effect was not evident for participants who stayed with drug using family members.

HIV prevention interventions with drug users who are temporarily doubled up with family or friends should include a careful assessment of the living situation to determine whether it is a secure environment conducive to implementing risk reduction. In cases where drug users are staying with non-drug using friends or family, interventions could build on existing emotional ties to motivate drug users to reduce their drug use and HIV risk. In cases where drug users are staying in what is essentially a drug use site, venue-based interventions could be designed to provide gatekeepers with HIV prevention materials and information. Such interventions could be marketed in a way to appeal both to the business aspect of running a drug use site as well as drug users' sense of reciprocity to and care of the drug using friends they allow to stay there. Harm reduction norms could improve business, on the one hand, by making the site more safe and attractive to those who use it or sleep at the site. Risk reduction is also consistent, on the other hand, with norms to protect friends from harm. Direct interventions with drug users who double up with drug using friends is also needed to promote strategies to reduce risk and manage drug use in less than ideal surroundings. Again, ultimately strategies to move drug users into more secure, permanent housing are needed.

Results from this study confirmed the association between being housed and having reduced HIV risk and drug use found in other studies of drug users. However, stable, independent housing is also a varied category, and in this study, those who received housing subsidies or supportive housing with subsidies reported using fewer drugs and engaging in less risky behaviors than those who did not. Data from the project indicate that those who received subsidies had often been homeless for an extended period of time and had waited for several years to receive a housing subsidy. They were also aware that if they lost their housing subsidy, they would be ineligible to receive another for several years. They were highly motivated, therefore, to not lose their subsidies or their housing and engaged in a number of strategies, such as limiting the access of other drug users to their apartments and controlling their own drug use, in order to maintain their housing. They also reported feeling happier, and that this decreased their desire to use drugs. Those who did not receive subsidies, on the other hand, had no fear of losing them. They may have been less motivated, therefore, to keep other drug users out of their apartments. Some, in fact, described turning their apartments into drug use sites. Drug users without subsidies may have lost hope in their ability to maintain housing when the average rent is far out of reach economically. Far from enabling drug use, housing subsidies and supportive housing programs appeared to enable participants to control their drug use and HIV risk. More funding to house and provide supportive services to drug users is needed to solve the seemingly intractable problem of homelessness. Safe and affordable housing is also a structural intervention with significant promise to stem the HIV/AIDS epidemic.

CONCLUSIONS

The qualitative data collected in these projects provide insight into the processes underlying the observed relationship between homelessness or marginal housing and HIV risk. A greater

understanding of these processes, in turn, can help in the development and refinement of HIV prevention interventions for drug users in a variety of housing situations. The qualitative data presented here also suggest the value of adding additional dimensions to operational definitions of housing status for future research. In particular, results indicated important variation within the category of independently housed and doubled up. Future research should include measures of the types and amount of housing subsidies and supportive services received for independently housed drug users. For drug users who are doubled up, quantitative measures should include the types of relationship drug users have with the lessee of the apartment and whether the apartment is used as a drug use site.

Biographies

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Maria Martinez has been involved in HIV prevention outreach, interventions, advocacy and services to active drug users and sex workers for over 15 years. She coordinated the intervention and field research of the RAP project to train drug users as peer health advocates at the Institute for Community Research.

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Table 1

Percent of participants in each housing status at baseline.

Housing Status	Baseline (N=65)
Shelter	17%
On the streets	14%
Double up	31%
Supportive	6%
Subsidized	15%
Non-subsidized	17%

Table 2

Frequency of drug use according to housing status.

Housing Status at 3 month	Mean times used crack in last 30 days	Mean times injected heroin in last 30 days
Shelter (N=14)	16 (s.d. 27.4)	10 (s.d. 32)
Homeless on the Street (N=4)	71.3 (s.d. 52.5)	38.3 (s.d. 74.5)
Double up (N=11)	12.8 (s.d. 20.5)	6.3 (s.d. 17.9)
Subsidized or Supportive Housing (N=11)	13 (s.d. 19.32)	8.3 (27.1)
Non-subsidized Housing (N=10)	27.7 (s.d. 51.2)	3.4 (s.d. 5.6)