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**CHAPTER 4**

**QUALITATIVE METHODS**

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## 1. Introduction

Psychoactive substances cause problems that result from complex interactions between: i. substances with diverse, toxic, psychotropic and addictive properties; ii. individuals with varied vulnerabilities and resiliency; and iii. complex sociocultural environments. These interactions produce variations in drug use and drug abuse across cultures, and within different sociocultural groups across time. One consequence of this complexity is the need to explore both local and global patterns of drug use, to monitor changes in drug abuse patterns, and to explore drug abuse in previously unstudied populations.

No single research method, by itself, is sufficient to study all aspects of these conditions; multiple methods, supported by multiple social science theories, are necessary. Room (1992) has identified some of the primary approaches used for drug abuse research including: i. ethno-graphy; ii. surveys; iii. psychosocial experiments; iv. studies of social and health indicators; and v. history, cultural and policy studies based on documents. Traditional epidemiology, informed by social science theories, can be added to this list, as well as studies that combine biological and behavioural research. Originally, many of these methods were associated with particular disciplines, (i.e. anthropology, sociology, psychology, demography, public health, and history). Nowadays, there is a strong emphasis on combining methods and theories that are informed by both qualitative and quantitative analytical techniques, in order to address the intricate interactions of drug use, health, and public policy.

The ethnographic and other qualitative methods discussed in this chapter are ideal tools for exploring many facets of drug use and drug abuse cross-culturally and within special populations in a single culture (see also Chapter 7). These methods tend to be used as exploratory techniques: for identifying and exploring complex behaviours within their natural context, approaching hidden or difficult to reach populations, addressing sensitive issues, gaining knowledge of new or not sufficiently understood problems and conducting formative analysis of the sociocultural and the psychosocial context in which drug use is taking place. These techniques are invaluable in the identification of emerging issues such as changes in the substances used, the circumstances of use, routes of administration, the subgroups using drugs, and for discovering information that would be ignored in previously formatted (and potentially out-of-date) surveys. In addition to this valuable contribution, ethnographic and other qualitative techniques are also being used to conduct on-going monitoring of drug use patterns and their epidemiological consequences, to generate new paradigms for drug abuse interventions (e.g. social network and social diffusion interventions, as well as cultural marketing of intervention programmes), for programme evaluation (especially in the area of process and performance evaluation and quality control), and as a method of bridging between the strengths of quantitative (survey and experimental) data collection and the in-depth contextual findings of qualitative research. Qualitative approaches often help explain the important humanistic elements of the numbers generated by quantitative research analysis.

Qualitative methods are of special importance when substance abuse occurs in highly

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variable and context specific cultural environments, each of which may have a different impact on drug use and its consequences. The global configuration of drug users today is very complex. Increasingly, they are often poly-drug users who adopt increasingly dangerous forms of administration, use more potent or purer drugs, use drugs for longer or more intensive periods, and simultaneously engage in other forms of high risk behaviour in addition to their drug use. The consequences of drug abuse are often related to the type of substance used, the route of administration, frequency and amount consumed, and to the vulnerability of the individual to the drug. The local context and personal situation of drug use allows some of these individuals to remain functional for some time, while others are rapidly devastated by their drug use. These patterns are also affected by cultural context, such as the meaning the drug has in that culture, its view as normative or abnormal, social tolerance or social rewards for its use, social environment issues such as the availability of sterile needles, and of the way the individuals drug use affects others. As the scientific literature abundantly notes, the individual and social consequences of opium, marijuana, cocaine and other product use vary across a wide geopolitical spectrum. These trends are locally affected by contextual, social and personal/ individual factors such as changes in the demographic composition of populations (i.e. modifications in the numbers and the age or gender of potential users); in the presence of risk factors (i.e. genetic conditions, fads and fashions, global travel patterns, knowledge and awareness of adverse consequences; in socio-economic conditions); and in the ethical, enforcement and other policy related factors that exist around the world such as legal drug availability, societal tolerance of use, prevention and treatment efforts, availability of services, and drug enforcement laws. Qualitative methods are particularly sensitive to variations in those conditions.

This chapter describes the basic parameters of qualitative research methods and suggests a number of ways in which this approach complements traditional epidemiological methods, such as the survey, and other forms of drug related research. It describes several different qualitative methods that have been successfully used in the study of drug use among different target populations and sociocultural contexts. It describes techniques that can be used for rapid assessment as well as methods that require a longer term presence in the community, and discusses the advantages and limitations of qualitative research within the overall context of drug studies. The use of rapid assessment and qualitative methods for initial situation assessment are also discussed in Chapter 2. Chapter 10 provides a description of the use of qualitative methods for assessing the cross-cultural applicability of a model core questionnaire for use in drug abuse epidemiology.

### The Function and Objectives of Qualitative Methods

Ethnographic and other qualitative research emphasises gaining and interpreting an insider's perspective on a particular cultural frame. These frames or points of reference can be as large as a whole culture or society or as focused as a subcultural fraction of a society (Room, 1992, Trotter 1991). Qualitative methods link the observer and those being observed. They fundamentally differ from social surveys by engaging respondents in relationships that are

relatively longer lived and emotionally consequential for the researcher, the respondent, and the community at large (Johnson, 1990, Bernard 1988). In its various forms, qualitative research becomes a form of collaboration between social researchers and those being studied with the purpose of exchanging information (Johnson, 1990). Diaz, Barruti & Doncel (1992), who equate qualitative techniques with anthropological field work, note that qualitative approaches consist of methods that allow researchers to have direct contact with the situation under study for an extended period of time, during which they record the perception of social agents about themselves, ideally using the social agents own categories definitions and values, and contrasting it with their position as outside observers. These and other authors frequently quote an illustrative definition of the ethnographic research process provided by Whyte (1971), "what people told me helped me to explain what had happened, and what I observed helped me to explain what people had told me".

Qualitative methods of research are neither new nor in any way less scientific than other methods (Carlson, Siegal and Falck, 1995). Qualitative research methods are designed to improve our comprehension of the meaning of key elements or domains within cultures, to develop a definition of on-going cultural processes, and to explain the values and judgements that people make in their daily lives. On the one hand, ethnography and other qualitative methods are an important part of the phenomenological tradition of social sciences that searches for individual signification's and seeks to obtain understanding of social phenomena from the actor's perspective. Simultaneously, there is a very strong positivist and empirical tradition in qualitative research that grounds both social science theories and methods within the tradition of basic sciences.

This combination of approaches and methods, developed from many different theoretical perspectives in anthropology, sociology, psychology, political science, and epidemiology, have proven valuable for the study of a wide variety of populations such as mainstream cultures, cultural minorities and specific marginalized group, (Bieleman, Diaz Merlo and Kaplan, 1993). Kirk and Miller (1986) note that qualitative research fundamentally depends on watching people in their own territory and interacting with them in their own language, on their own terms.

Qualitative research methods can be used to investigate drug use as both an individual and small group activity, as well as placing it within the wider social and cultural spectrum. These methods allow for a strong localisation or cultural specificity of analysis by investigating the local environment for the user's relationships with other users, friends, family, suppliers, in addition to the media and the wider society that bears it's costs. Edwards and Arif (1980), state that it is important to learn about how society and culture determine who takes which drug, how the users perceive themselves and are perceived and responded to by others, the awareness of susceptibility of treatment and how these aspects relate to help seeking, and to demand control. Thus, they conclude that in designing prevention guidelines, it is absolutely necessary to maintain a consistent relationship between policies and programme and the sociocultural setting for which it is planned. Ethnography and other qualitative research

techniques are one of a number of approaches that assist in keeping programmes and policies culturally relevant and culturally competent.

## 1.2 The Role of Qualitative Methods in Drug and Alcohol Use Studies

Two different but related approaches are part of the qualitative research contribution to drug and alcohol studies. Some research programmes incorporate full scale ethnography and participant observation, which are longer term efforts, while others, such as rapid assessment projects, take on a focused topic in a short amount of time. The full scale studies are exemplified by ethnographies of drug use and abuse, such as those of Michael Agar (Agar 1973; 1977) or Philippe Bourgeois (Bourgeois 1995). On the other end of the continuum, the utility of specific and focused short term qualitative research is illustrated by Kozel (1993) using a study conducted by the National Institute on Drug Abuse of the United States. The study was triggered by a statistical observation of a sharp increase in marijuana related morbidity data. The field study was conducted by Feldman, Agar, and Bescher in four cities of the United States using non-structured interviews and participant observation over a short time period. This study demonstrated that marijuana was not the reason for the increase in drug related morbidity. Instead, it was the relatively new practice of impregnating marijuana with phencyclidine (PCP), as a new drug abuse practice. This finding allowed more appropriate policy development and intervention strategies than would have been possible using the statistical data alone, which missed the PCP introduction.

Rapid assessment studies are also valuable in co-morbidity conditions. For example, a project in the United States (Trotter et al. 1995b) is assessing the utility of integrating qualitative and quantitative research and intervention approaches in a multicultural HIV prevention programme. The Flagstaff Multicultural AIDS prevention programme is demonstrating that HIV transmission, linked to drug abuse and sexual risks related to drug use, can be successfully reduced by means of an approach that takes into consideration the social context in which the individual is immersed, using psychological theories, ethnography and social network approaches to harm reduction. These methods assume a social system that involves other actors who are significant reference points for another's decisions, in these cases using drugs and getting involved in behaviours that have a high risk for the transmission of HIV.

These examples illustrate the fact that qualitative research can be used separately for its own strengths in developing knowledge about drug use in various cultures or it can be used to complement quantitative research approaches. There is a growing body of culture theory derived from ethnographic studies. Some of this information has generated hypotheses for experimental and statistical testing, while in turn statistical data has also suggested conditions and processes to be studied through targeted qualitative approaches (Kozel, 1993). This type of information exchange can allow a better understanding of the meaning of the data derived from statistical approaches. In addition, since many drug problems start at the community level, sometimes within a small drug subculture, accurate and complete diagnosis of local

problems require observations of the full range of issues derived from qualified cultural consultants. Without an adequate understanding of the way drug users and the community perceive the problem and are affected by it, prevention programmes tend to be limited and policy derived from inadequate data will normally not have the desired effect.

## 2. Ethnographic Sampling Designs

Qualitative research tends to focus on well defined communities, ranging in size from whole cultures and subcultures within a larger society, to special populations that need exploration in terms of specific beliefs, behaviour, or relevance to the larger group. Populations which benefit from qualitative approaches, best reached or studied through qualitative methods include hidden populations (groups engaged in illegal or socially unacceptable activities), groups usually not detected thorough the traditional household or students surveys (small cultural groups or individuals engaged in infrequent or rare behaviours), and those that do not commonly participate in health, welfare, or justice institutions (including elite populations or protected classes). A number of studies have been successfully conducted with these groups, as described in the following sections (see also chapter 7 on Special Populations).

### 2. High-risk Groups and Hidden Populations

Qualitative research approaches provide an effective method for dealing with many different special population categories. New drugs or new forms of existing drugs periodically appear and draw new groups into the drug scenario (Kozel 1993). This trend tends to occur most frequently in high risk groups or groups that are also engaged in other risky behaviour. Such trends include the use of: so called "designer" drugs, particularly amphetamine-analogues of the MDA type such as MDMA ("ecstasy"); new preparations of substances such as crack or bazuco; existing diffusion of drugs traditionally used in specific geographical areas to other areas or even countries, for example of heroin use and injection to countries in Africa; and changes in the mode of administration, for example from smoking to injecting. Besides these relatively new groups of drug users, other high risk groups, such as indigenous populations or street children, may be studied through this approach. Many of these groups can be considered "hidden" populations, with special research needs. Wiebel (1990) defines hidden populations as a "subset of the general population whose membership is not readily distinguished or enumerated based on existing knowledge and/or sampling capabilities". For further discussion of these "special" or "hidden" populations also see Chapter 7 of this guide.

Ethnographic and other qualitative methods are valuable for studying special age groups within the wider population, such as youth, both in and out of school. In some situations, school surveys or observations can gather data from the majority of the youth population. Elsewhere, the majority of adolescents and young adults in the age of highest risk of use do not attend school, or have dropped out of school and are not included in-school studies. Findings from ethnographies of these youth indicate that drug use among non-

students is higher than among those attending school. For instance in a study that compared these two groups, it was found that cannabis use was 2.5 times higher among non-students from Chandigarh, India and 1.4 times higher in Durham, Canada (Smart, et al., 1981). These populations are important to understanding the overall configuration of drug use globally.

Another special population that has received attention from qualitative researchers is the group called street children. Both ethnographic and survey data indicate that drug use among street children is extremely common (Carlini, 1988, Leal et al., 1977; Medina-Mora et al., 1982; Gutierrez et al., 1992; WHO, 1993b; DDF, 1992). In 1991, the WHO Programme on Substance Abuse (PSA) made a commitment to develop a project focusing on the issue of substance use among to street children in various cultures. The presence of difficult economic conditions in many societies has forced increasing numbers of children to work in the streets and to become one of the main sources of financial support for their families. Ethnographers have been establishing a better description of these children's lifestyles on the street, from their risks to the ways that they cope with everyday problems. For example, Leal and his colleagues (1977) described how street children would take care of the children of adolescent prostitutes while they were working and in turn received in affection from these girls, forming a type of substitute family.

Drug use has also long been associated with homeless adults and groups that are highly mobile. This ranges from the famous "skid-row" studies of alcoholics in the United States, to transient and migrant farm worker populations around the world. Not all, or probably not even the majority of homeless people are drug users, but the level of drug use among these populations is higher than in comparable populations who have a stable residence. In some societies a deinstitutionalisation of psychiatric patients has occurred on a culture-wide basis, which has resulted in an increase of homeless persons and in an increase in a co-morbidity between drug abuse/dependence and psychiatric disabilities. These populations have commonly become the object of qualitative studies to determine the services and other appropriate responses that will be most effective with this population.

Qualitative approaches are also proving useful in the description and analysis of specific drug use lifestyles. These approaches study the use of single drugs, such as heroin, cocaine, or methamphetamines and are excellent for obtaining information on the natural history of abuse, service utilisation, means of drug acquisition, and consequences (including dependence) of these drugs, all of which are of special utility for prevention and treatment planning. Qualitative techniques allow for the identification of users, in many instances, who are significantly different from the ones studied in clinical populations and social welfare services. This allows researchers to fill in the gaps in the overall analysis of abuse, including clinical as well as not-in-treatment populations. Medina-Mora and collaborators (1980), report an example of this approach. In attempting to identify all drug users in a urban Mexican community using intensive case finding techniques, they were able to identify only the more severe drug users, those known to other serious users (members of drug using groups or gangs) who were willing to reveal themselves and accept contact with researchers through snowball sampling

techniques (see below). Three types of users were not captured and interviewed; those that were not visible because they were only experimenting with drugs or were infrequent users, those that used socially acceptable drugs such as medications or prescriptions, and female drug users who remained hidden due to the considerable social stigma attached to their drug use and consequently did not use in groups so only their closest friends were aware of their use (Medina-Mora, 1979)

Drug abuse occurs in elite populations as well as disadvantaged groups. Ethnography has predominantly been used to study groups with limited social status and power, but also has the potential to provide valuable insights into the values, beliefs, and drug use patterns of more powerful groups as well. Diaz and his colleagues (1992), demonstrated that the prevailing use pattern among elite cocaine users in Spain is similar to their use of alcohol in at least three aspects: i. it is prevalently used by these groups for social-recreational use; ii. there is a gap between the ratio of occasional users to individuals who are cocaine dependent; and iii. many of the longer term users are both socially integrated into the wider society and remain (to date) functional in their occupations. As another example, direct observation of an "elite" was used by Hopkins and Frank (1991) in an intensive study of the Wall Street area of Manhattan, New York, an area where direct interviewing would have been very difficult. They identified a bounded set of geographical areas to study, and carefully selected the sites for direct observation.

The study was conducted during work hours for a three week period. Drug dealing was observed in 12 of the 15 sites selected for observation, with marijuana being the drug most often observed being sold or used, followed by cocaine. The majority of the dealers were males that worked in the area as messengers, stock clerks, etc., and most of the clients were female clerical workers, although approximately 40% were males executives. A remainder of the buyers were office workers or messengers. These types of studies provide very important evidence of both the epidemiological characteristics of drug abuse, and the characteristics of drug users, and also provide information for the formation of drug control policies and their implementation.

The basic qualitative research approaches, from classical and general to focused and specific, each involve the appropriate selection (qualitative sampling) of individuals to be interviewed and observed. In a thorough exploration of the similarities and differences between the types of probabilistic sampling used in surveys and experimental designs, compared with the purposive sampling strategies necessary for successful qualitative research, Johnson (1990) provides an important set of both prospective and retrospective design criteria for selecting ethnographic and other qualitative research informants. This work is also valuable for mixed sampling designs that link qualitatively sampled data with probabilistic samples. Drug abuse research poses special issues in sampling, given the illegal or morally opposed nature of many types of drug use. Drawing epidemiological and policy conclusions from both qualitative and quantitative data sets must be done carefully, within the range of the best possible approaches (Brodsky 1985). The most common methods of qualitative sampling in drug using populations

are described below.

## 2.2 Snowball Sampling

Diaz, Barruti and Doncel (1992) describe snow ball sampling as an important case of chain analysis, which allows the researcher to strategically build a sample of individuals sharing one common characteristic, such as their condition as drug users, within a large universe of individuals who may or may not share this behaviour. Snowball sampling was originally used by Coleman in 1958 to study social structures within society. He defined the method as sociometric type due to the fact that it takes into account the social environment (Bieleman, Diaz, Merio and Kaplan, 1993). It has been used in other countries to study other types of drug subcultures such as cocaine users (Bieleman et al., 1993) in the Netherlands, and poly-drug use (Medina-Mora et al., 1980) in Mexico. In the latter case, drug users served as case finding agents, introducing the researchers to a growing sample of other users. This method can be successfully used when drug users are known to other users, or tend to use drugs in groups (Hughes et al, 1982a). While the most common use of this approach is to find drug users who can be observed or interviewed, it can also be used to gain insights into relationship structures of the drug using groups (Bieleman et al., 1993; Trotter et al. 1995). The snowball sampling method is described and analysed in some detail in a handbook produced by the Council of Europe's Pompidou Group (Council of Europe, 1997).

Bieleman and his colleagues (1993) define snow-ball sampling as a chain starting from the first (index) individual. These individuals are asked to name their acquaintances who have a particular characteristic (drug use, sex partner, etc.), who will constitute the second wave of interviewees. The same questions asked of the index individuals are asked of the second wave in order to construct the third wave and so on. Goodman (1961), and Frank and Snijders (1994) provide a statistical basis for analysing this method and comparing it to probabilistic samples or for estimating the size of hidden populations. For qualitative research purposes, such as interviewing to redundancy or extinction of new issues, the purpose is to provide a sufficiently large sample to assure that all of the key cultural issues will be thoroughly explored. However, where this data is to be linked to quantitative data the initial sample (phase zero) must be a random sample of individuals from a defined population, with an equal number of individuals expected from each respondent, and sample numbers that must be kept constant in each sampling phase. According to Bieleman (1993), snowball sampling must fulfill the following requirements in order to ensure statistically valid estimates:

- The initial step (phase zero) must be a representative sample of users, or as close to one as possible, otherwise the selection of cases may be biased. In order to analyse the data without violating statistical assumptions, it is necessary to consider the probability of selection of individuals in each step and weight the data base accordingly.
- ii The initial groups must be big enough to ensure accuracy. Factors such as the network structure and the willingness to provide information on other users,

and on providing information when contacted, affect the final sample size. Snijders (1992) states that the initial sample size of one-way snowball sample should not be much smaller than the square root of the population size.

Sudman et al. (1988) suggest a third condition be controlled in snowball sampling in order to ensure unbiased samples: the size of the population must be stable during the period through which the observations are carried out. This last requirement is difficult to control in the case of a dynamic and continuous change of the drug scenario. This supports the recommendation of reducing the field work to the shortest time possible when estimating size of the population. The research can then be extended to gain more knowledge on the meaning of drug use within that subculture, without the instability produced by change over time. However, the time needed to select a sample may be affected by the relative secrecy or exposure of the problem in the specific population studied.

Studies that focus on the social structure or on qualitative data within identifiable drug using groups do not impose these same restrictions on the phases or numbers of contacts, since they need a purposive, rather than a random seed in the first phase, and since they do not limit the length of any chain, but allow the researcher to continue contacting cases until the possibility of new referrals is exhausted. This is an advantage in the rapid assessment of emerging drug trends, and for the description of models of the epidemiological spread of drug use and abuse in targeted populations.

### 2.3 Intensive Case-finding through Geographical Sampling

There are many different settings that are ideal for observing and collecting data from drug subcultures. These locations vary according to the law enforcement and health policies of the nation, the relative tolerance towards drug users in the society, and the drug use patterns and social characteristics of the using group.

Hughes et al., (1982b) describe several methods for the identification of locations for sampling drug abusers, depending on the type of substances used and characteristics of the drug subculture. In Chicago, Hughes and Jaffe observed that users met regularly at neighbourhood drug distribution sites called "copping areas". The research team, stationed at these sites, successfully recruited former drug dealers who were either methadone patients or closely supervised drug rehabilitation programme staff. Use of this approach allowed them to contact and make a census of addicts before and after treatment outreach experiments. Westermeyer (1974) used opium dens in Laos as the focal point for case finding and other data collection, since dens served as a place where addicts socialised, as well as used drugs. In Pakistan, McGlothlin,(1972) used the drug distribution system to assist in field research. Shick, Dorus and Hughes, (1978) then extended this approach to accommodate the behaviour of multiple drug users, when they studied adolescents who gathered in parks which offered abusers a place away from adults and non-using peers. Researchers in Mexico, (Medina-Mora et al., 1980) used this approach to study marihuana and solvent users, by monitoring and

collecting data when these individuals gathered in groups A on the street, even though these places were not used as a source of drug supply. In societies with a large proportion of children and adolescents working in the streets, public places are ideal for observational studies. Medina-Mora et al., (1982) found minors with inhalants (carrying obvious paraphernalia) in a relatively police free area. Leal and his colleagues (1977) found much more secretive (hidden) forms of use in a high risk area in the same city. In the latter area, children would keep an open bottle in their pants pocket and soaked their sweater sleeves through discrete jumps, then inhaling from the sweater.

In each of these cases, knowledge of geographically concentrated collection points for drug users allowed the researchers to acquire significant samples of participants in their projects by identifying the types of drug use locations in use and mapping and sampling them as intensive case finding sites. It also allowed these studies to contribute significantly to our contextual knowledge of drug abuse by conducting them in naturalistic settings, and within the natural social relationships in which the drug use behaviours actually occur and can be observed.

## 2.4 Targeted Sampling

There are many situations in which it is impossible to find or to utilise a pre-existing sampling frame that is appropriate to create a statistically defensible sample of a drug using population. Too many key parameters, including the need to avoid law enforcement and to remain hidden, prevent the use of traditional random sampling procedures for many of these populations. In these cases, the process of targeted sampling (Watters and Biernacki 1989) is a highly successful and appropriate substitute for strict probabilistic sampling designs. Targeted sampling is a systematic technique for creating a proxy sampling framework that assures that the major divisions or categories of the population being studied are systematically sampled, in the theoretically correct portions.

The US National Institute on Drug Abuse has used this technique in its Co-operative Agreement Program (Weatherby et al. 1994), which assembled a sample of more than 14,000 (linked pre-post test) cases of active drug users across 23 sites, to study HIV transmission among street (not-in-treatment) cocaine and heroin users in the United States. Each site uses locally available data on drug treatment, detoxification programmes, ethnic and economic demographics, arrest records and any other available records (including ethnographic studies) to select geographically representative locations for conducting outreach programmes that will draw in drug users in the correct proportions for the study.

Bieleman et al., (1993) successfully used a modified application of this technique to assess the extent and nature of cocaine use in three European cities (in Holland, Spain, and Italy). Their approach to targeted sampling was to deliberately identify respondents whom they had good reason to believe formed a reasonable cross section of the cocaine subculture (in terms of subgroups and settings where use took place) utilising all of the secondary data (arrest

data, treatment data, baseline ethnographies) that was available to them. For example, in Barcelona, targets were defined by setting, type of use and economic status: i. elite: fashion, business and art world; ii. new urban middle class: professions, jobs linked to night life, middle ranks in the fashion, business and art world; iii. young people; iv. illegal circuits and opiate addicts; v. middle status and middle low status. In Rotterdam targets were based in sociocultural considerations, with eight categories of users recruited: i. hard drug world: heroin and poly-drug users; ii. youth circles, gathering in clubs, community centres, shops selling cannabis; subgroups were hooligans and homeless people; iii. art, culture and music world; iv. world of fast money: people working in advertising fashion and other modern professions; v. circles of cannabis users; vi. illegal and semi-legal circles: juvenile delinquents, prostitutes and drug dealers; vii. higher education and university users; viii. and the sport and fitness world. In the process of the investigation new groups were targeted as the ethnographic data collected by the project made it apparent that they fit, but were missing from, the original targeted sampling groups.

## 2.5 Nominative Technique

The nominative method is an estimation technique based on information provided by individuals (in a sample) about others who are known to the respondent to have a specific attribute or behaviour. This technique was used by Smart in Canada and Castro in Mexico (1987), to study the extent of community drug use based on original random samples of students. Due to the small prevalence of drug use observed among Mexican students (Castro, et al., 1986) it was felt that this technique would elicit more information and thus improve the assessment of the problem. Respondents were asked the question "How many of your friends do you know are using drugs?" Hartnoll and his colleagues (1985), used the technique to estimate opiate addicts, when they asked known users to name the acquaintances they had who were users of this substance, and who had been in contact with the health system. They used this approach to estimate how many addicts had not been captured in the samples of in-treatment drug users, to help improve estimations of the actual size of the problem, modified from the original estimates made based on statistics from the health system. This technique can provide important additional demographic and other information about hidden groups.

## 2.6 Group Identification and Network Analysis

Network analysis strategies can be used to create sampling frameworks for local studies of drug use and can be used to refine the definition of drug using groups and their risk patterns (Trotter, Bowen, Potter 1995; Trotter et al. 1994; Needle et al. 1995). Social network samples focus on specific relationships (e.g. drug use, needle sharing, sexual partnerships) as well as their intensity, directionality, and frequency. A network sample is designed to describe a larger segment of a community or group that is tied together by some common relationship. This approach allows the researcher to make inferences about the type and quality of the relationships, about core versus peripheral participation in the group, about roles and statuses in the group, and about dynamic interactions (e.g. HIV transmission, initiation of injection,

etc.) that occur in the overall network of drug users. Network sampling is also designed to increase the amount of information that can be obtained from an interview, based on known relationships. The respondent is asked to provide information both about himself/herself and about all of the members of the social group to which he or she belongs (Diaz et al., 1992). Network analysis captures emergent properties of social systems that cannot be measured by simply aggregating the attributes of individual members and that may affect both the system performance and the behaviour of network members (Knoke et al., 1982). This method enables the researcher to simultaneously consider the attributes of individuals and the relationships among those individuals. The attributes are characteristics intrinsic to people that persist across the various contexts in which the actor is involved (i.e. age, sex, genetic background, etc.). However, persons with their attributes are also involved in relations that are context specific and alter or disappear upon the actor's removal from interaction with other parties (i.e. the user/ drug supplier relationship can vanish upon the rehabilitation of a user or incarceration of a supplier).

### **3. Basic Qualitative Methods**

Qualitative research typically uses observational methods, (direct and participative), interviews (open, semi-directed, in-depth), broad or focused life histories, discussion groups (key informant interviews, focus groups), and the analysis of social networks, and cultural decision modelling to gain detailed knowledge about situations and behaviours. Instead of emphasising random selection of large numbers of participants, qualitative researchers usually focus on selecting a broad range of people with good knowledge of the problem of interest in order to describe it in-depth in its natural context. This section of the chapter summarises some of the different types of qualitative research that can be applied to drug research and evaluation issues, depending on the problem being studied and the policy needs for the analysis.

#### **3 Ethnography and Participant Observation**

Ethnographic research, originally developed and used by anthropologists and qualitative sociologists, is now widely used by researchers from many different disciplines. It allows researchers to conduct in-depth explorations of key issues and concepts across cultural boundaries, and to advance theory and practical application of the qualitative sciences. In its widest sense, research comprises all of the processes, procedures and techniques that allow a researcher to select, collect, record, manage and analyse ethnographic data within the framework of a theory (Trotter, 1991, Bernard 1988, Werner and Schoepfle 1987).

Ethnography has been simultaneously viewed as a means and an end, or both a process and a product (Johnson 1990). As a process, ethnography constitutes a set of strategies for data collection, rather than a single methodological approach. As such, the approaches may include both qualitative and quantitative methods and involve data that are from both primary and secondary data sources. The ultimate aim or product of ethnography is a written

representation all of the key aspects of a society, culture or social scene. Intensive field research provides the ethnographer the opportunity to observe, record and ask questions about ordinary events from the time people get up when they turn in at night. It allows the researcher to capture cycles of daily, monthly and annual life. While field work should be long enough to ensure that major cultural beliefs and behaviours are identified, shorter sessions are often possible when important cultural parameters are better known or when the research focus is a specific area of behaviour (Trotter, 1991).

Room (1992), describes the place of drug and alcohol studies within classical ethnographic projects as one dimension of the holistic description of the culture, often without specific emphasis on this cultural dimension over any other. In some cases, this approach creates a de-emphasis on the problematic aspects of drug abuse by limiting their importance or prominence within the overall description of a culture. In other cases this approach strongly identifies the global parameters of drug abuse as a cross cultural problem. The classic ethnographic approach can be contrasted with more recent use of this methodology to focus on the place of drugs in a culture or on particular subcultures of drug users.

An example of the focused approach has been described by Hopkins and Frank (1991), in which their Street Research Unit provides complementary information to the data derived from traditional epidemiological methods. The New York City based Unit consists of a supervisor with training on ethnographic techniques and several researchers with a history of substance abuse. The authors state that the researchers knowledge of street language and drug behaviour enables them to capture information that would escape most observers. This allows the Unit to gather the following information on an on-going basis: kinds and amounts of drugs being sold, offered and used; number of sellers and users; costs and variability on prices; location of sales; shifts in the drug scene; labels and other identifying marks on illicitly sold drugs; information on the sale and use of drug paraphernalia; general characteristics of sellers/users and attitudes and opinions among sellers/users on the drug scene.

### 3.2 Direct Observation

It is often necessary and important to conduct direct observations of risky behaviour in order to understand the social and behavioural context of drug abuse. This technique has been widely used to establish data on drug use practices that are complex and difficult to understand from interview data alone. Some examples include data on how drug exchanges and needle sharing patterns occur, or how the exchange of sexual favours is important in crack houses. It is an important method for determining the similarities and differences between what people say they do (their ideal model of culture) and what actually happens when they use drugs (real culture in context). These types of studies have been invaluable in developing empirically based, in addition to theoretically based, intervention programmes. One example of this is the Needle Hygiene Project, conducted by the National Institutes on Drug abuse Co-operative Agreement Program (Needle et al.1995; Koester and Hoffler, 1994). Direct observations of injection drug use were conducted at five sites around the country. The behaviours being

observed included needle cleaning practices, sharing of injection equipment, and all of the processes associated with preparing drugs for injection. One of the important results of the study was the discovery that overall needle sharing had gone down among injection drug users, as a result of the HIV epidemic. However, the process of sharing drugs amongst people who had to pool their resources to purchase drugs by transferring the prepared drugs (heroin and cocaine in particular) from one syringe to another occurs at an alarming rate in these groups, and has been identified as a major potential source of HIV infection, regardless of the use of separate needles by the drug users.

Approaching the issue of street drug use from another perspective, Leal, et al., (1977), applied participant observation techniques to understand the drug using career of street children and their maturation toward adulthood. Leal was able to gather data which started with the initial phases of children working in the streets, dropping out from school and leaving the family, through all of the stages of development in this street culture. The authors report the social interactions that enabled children as young as eight years of age to survive in very violent environments, noting that prostitutes were providing affection and a substitution for the mother role, while the young adults were teaching them how to get drugs, run away from the police, and to use local welfare institutions to fulfil their basic needs. This type of life cycle research can produce very useful information based on observations alone, or on observations combined with ethnographic interviewing techniques.

### 3.3 Ethnographic-Qualitative Interview Methods

Once a projects basic research questions have been determined and an appropriate qualitative sampling frame has been created, there are two major areas of data collection that are advisable when using qualitative research approaches. One is the direct observation of drug use behaviour (described above), and the other is in-depth qualitative interviewing using either exploratory or systematic data collection methods. The intensive and extensive combination of these two approaches is called "participant observation" in anthropology. Bernard (1988) states that participant observation is the core element in ethnographic research. It involves establishing rapport in a new community and learning to act in a way that people will perform their normal activities regardless of the ethnographers presence. Once this level of trust is established, Bernard notes that there are four advantages of participant observation. i. it is not only a method for gathering qualitative data, but also a strategy that facilitates any form of data collection on the field; ii. it reduces the problem of reactivity, i.e. people changing their behaviour when they know that they are being studied; iii. it helps to formulate sensible questions in the native language; and iv. it facilitates an intuitive understanding of what is going on in a culture.

### 3.3 Key Informants Approach

Qualitative research depends heavily on repeated interviews with cultural experts who can describe, evaluate, reflect upon, and summarise key aspects of their own culture. These

individuals, called key informants in the anthropological and sociological literature, provide the basic knowledge that is necessary to understand the culture being studied. Thus, every ethnography and most other qualitative research projects depend heavily on the ethnographer being able to select and interview (in depth and over time) an extensive sample of key cultural consultants (Bernard, 1988; Trotter, 1993; Medina-Mora 1980).

Several variations of key informant approaches have been used in drug abuse research. The method developed by Jellinek to study community perception of alcohol use, and later used to address other substances, is an example of this approach. It includes interviews with gatekeepers or key societal representatives who are in contact with the target population. For drug users, these types of key informants might be drawn from occupational groups, such as health workers, teachers, school authorities, priests, ministers and other religious leaders, bar tenders, or police, each of whom can provide one type of window into societal interactions with drug users. These individuals would be considered key informants about the social response to the drug problem. They may also provide demographic information about the number of cases contacted in their institution, and trends on type of substances, user subgroups, and patterns of use they come in contact with. Applied ethnographic projects commonly collect data on these viewpoints in order to create a systematic view of drug use, from inside and outside the drug using world.

These views must be balanced by choosing key consultants from among the drug users themselves, since it is the individuals who are directly involved in that lifestyle who are most likely to have the greatest depth of knowledge and understanding about the intimate details of drug abuse. This type of informant will provide information that is not available from outsiders, such as the actual criteria used for making decisions about attempting treatment, barriers to behavioural change, and other issues known only (or known best) to insiders. Even with drug abusers as informants, some specialisation of knowledge and experience must be anticipated. The specific characteristics of each drug using subculture may differentially affect the general knowledge patterns that each informant will have about specific drug use. Individuals who exclusively use marijuana may have little intimate knowledge of injection drug use. In addition, there may be differences of viewpoint between current or former drug abusers, or users actively in treatment. In each of these cases, these persons may be excellent cultural guides who can introduce the research staff to the principal coping (drug distribution or drug using) areas, they can aid the researcher in gaining access to specific and difficult to reach population segments (i.e. high class cocaine users), and can assist in explaining peculiarities of events and subcultures to the research staff (Goldstein, et al, 1990).

An interesting variation on this approach is the key informant network known as the Community Epidemiology Work Group (CEWG), co-ordinated by the US National Institute on Drug Abuse (NIDA). The CEWG is a nation wide network of researchers who are involved with key informants at locations around the United States. They meet semi-annually to discuss drug use patterns and trends in selected metropolitan communities in the United States, and in other countries. The key informants report and discuss special emerging

problems, risk factors and negative health and social consequences in their own communities using both quantitative and qualitative sources mainly survey data, indirect indicator data and anecdotal information.

WHO has used the key informant interview technique in its initiative on cocaine (WHO, 1993). This study used professionals (treatment, law enforcement), mass services providers (e.g. taxi drivers) and users.

### 3.3.2 Focus Group Approach

Focus groups are group interviews, rather than individual one on one interviews. They have been used in qualitative research for some time. Kozel (1993) notes that this technique appeared in the 30's as an alternative to direct interviews, then became popular as a means of qualitative research in marketing. More recently focus groups have been used to study knowledge, attitudes and beliefs in a variety of social situations. They have an advantage over individual interviews, in the fact that they allow the researcher to record and analyse peoples reactions to ideas and to each other. They have the disadvantage of potentially only providing information on subjects that people are willing to discuss in public, so that some parts of intimate subjects may be avoided or modified from their actual behaviour patterns when they are being discussed in the group. Even with these limitations, focus groups are an important qualitative research technique within all of the different types of qualitative interviews.

Focus groups are one means of obtaining a considerable quantity of data in a relatively short period, from a larger number of people than would be possible with the same number of individual key informant interviews. The interviews tend to produce very good "natural language discourse" which allows the researcher to learn the communication patterns in the community rapidly. Morgan (1988) notes that the hallmark of focus groups is the "explicit use of the group interaction to produce data and insights that would be less accessible without the interaction found in a group" (Morgan 1988, p.12). Focus groups are normally lively and create back and forth discussion between the participants, based on topics and broad questions that are supplied by the researcher, who typically takes the role of focus group moderator. However focus groups are still extremely useful even where this technology is not available, see for example WHO Street Children: Training for Street Educators.

The interactions may be audio recorded, or in some cases where analysis of nonverbal communication is important, they may be recorded on video tape. The fundamental data produced are verbatim transcripts of the discussions which are subsequently analysed either through qualitative summary or through systematic coding and content analysis. The questions used are normally designed to extract a maximum range of relevant topics and as specific data as possible, to foster interaction that explores the participants feelings in some depth, and takes into account the personal context that participants use in generating their responses to the topic.

Focus groups are useful for orienting oneself to a new field of study; for generating hypotheses based on informants' insights; for evaluating different research sites or study populations; for developing individual questions for interview schedules and questionnaires; and for getting participants' interpretations of results from earlier studies (Morgan 1988). An interesting example of the use of this technique was reported by the CEWG in a 12 city study conducted to understand an apparent inconsistency coming from statistical information on indicators of price, purity and seizures of heroin.

The available information suggested that an increase in the use of heroin was occurring, although there was no significant evidence of large groups of new users. Focus groups were conducted among known heroin users and the discussions were directed at exploring changing patterns of use and hidden populations of new users. These discussions did identify some new groups of users, although they were limited. However, it became apparent that it was former addicts who were responsible of the significant increase of heroin consumption, as a result of concern over the Human Immunodeficiency Virus (HIV). Many of these addicts were changing their route of administration from injecting to snorting heroine, which necessitates higher levels of consumption of the drug. (Kozel 1993).

Focus groups were extensively used in the qualitative field assessment of the cross culturally applicable "model" core questionnaire that is included in this guide. The research protocol and summary findings resulting from that assessment are included in Chapter 10 of this guide. Chapter 10 also includes the focus group protocol and guide questions used in the field assessment, together with the questionnaire which was the product of the assessment.

In terms of general methodological issues for focus groups, Khan, et al. (1990), suggest that a least two focus groups for each variable must be conducted in order to insure that most aspects related to the subject of inquiry have been captured. Thus if only 4 variables are considered such as age (2 groups), sex (2 groups), use of substance (2 groups) caste (3 groups) are considered, 24 focus groups are required ( $2 \times 2 \times 2 \times 3 = 24$ ) for each research issue or area. These authors state that if more than one issue is included, the number of focus groups required multiplies accordingly.

### 3.3.3 Systematic Ethnographic Interview Approaches

A number of new qualitative data collection techniques have been developed which are extremely useful in qualitative research projects (Trotter 1991, Weller and Romney 1989). These methods do not replace the need for classical ethnographic or other qualitative data collection, but they enhance the possibility of confirming basic findings and make possible a more in depth analysis in a number of cultural dimensions. These methods provide techniques for the analyses of culturally defined cognitive systems, the development of cultural models of diseases, and exploration of cultural consensus on drug abuse related beliefs and issues.

The methods for defining culturally constructed cognitive systems can be classified as

developments that: i. assist in determining the content and limits of domain (i.e. free listing); ii. analyse the structural element of cultural domains (i.e. pile sorts); and iii. portray a domain from a consensual framework (i.e. consensus theory approach).

### 3.3.3.1 Determining the Content and Limits of Health Domains

The free listing technique is a common process used to explore cultural domains such as drug use and abuse. In one form or another, the technique has been used by every ethnographer who discovered an important cultural concept or area of interest and wanted to explore the limits of that knowledge, belief or behaviour. The most basic format for this approach is to ask a set of cultural experts to list and describe all of the things that are part of a particular cultural domain. For example, Trotter et al. (1993) used the technique to establish baseline data on drug and alcohol terminology that could be incorporated into a prevention programme aimed to the reduction of risks from drug and alcohol abuse and AIDS on the Navajo reservation. Other examples include asking individuals to tell us about the ways they try to beat urine screens using folk medical concepts, and exploring the labels for different types of sexual partners and how these labels affect risk taking behaviour, such as lack of condom use when people are high.

Free listing can be used as a rapid scanning technique in groups, or can be used as an interview exercise, one-on-one. Free lists are important because they provide natural language information that can be used in questionnaire construction or in educational materials which are culturally appropriate for a specific group. It is useful to record unexpected responses in free listing exercises, words and phrases that we subsequently need to be described and discussed in greater ethnographic detail, since these labels provide a window into unknown behaviours or into previously unexplored elements of the culture.

Free lists also make it possible to differentiate between key subdivisions in the populations, since the lists produced describing cultural domains often differ significantly by gender, ethnicity, age, and sexual orientation. For this reason, information on demographic characteristics of the informants is collected, in conjunction with the free listing. This creates the opportunity to use the data to analyse relationships between drug use domains and other variables such as: cultural orientation; intra cultural variation; gender differences in knowledge; or economic and educational differences, since it would be expected that the answers to free listing questions might differ based on the sex, age, income, educational level and other culturally significant factors. Free listings can also be used to generate ethnographic questions and to suggest the wording for questions in quantitative survey instruments.

Free listing was used in the qualitative field assessment of the cross culturally applicable "model" core questionnaire that is included in this guide. Chapter 10 includes the free listing protocol and questions used in the field assessment. Free listing was extremely useful in identifying the different drugs used (and their local street names) at each of the six sites. Drugs were identified that had been previously unknown to the researchers.

Some of the more sophisticated uses of free listing data treat these nominal or categorical data as variables which can be used in statistical procedures, to provide more extensive explorations of the relationships among informants or among the elements in a cultural domain. The advanced techniques for analysing free listings are described in Systematic Data Collection (Weller and Romney 1988). Finally, there are techniques similar to free listings, such as exploratory open ended questions, Spradley's domain analysis techniques (Spradley 1979), or sentence completion processes which can also be analysed using the approaches described for free listings.

### 3.3.3.2 Techniques to Define and Analyse Structural Relationships in a Cultural Domain

The methods that allow a researcher to explore relationships among the elements of a cultural domain include pile sorts (Boster 1986; Weller and Romney 1988:20-31), triads tests (Weller and Romney 1988: 31-37), and sentence frame techniques (Weller and Romney 1988:55-61). Each of these techniques begins where free listings leave off. They start with the elements of a well defined cultural domain, and they allow the researcher to explore the relationships of elements within that domain. Data collection is accomplished by asking informants to make judgements about the similarities and differences of the domain elements to one another using one of these techniques, such as a pile sort.

A pile sort is a qualitative technique that uses visual aides to allow informants to create unconstrained classifications of items within a cultural domain. The most common method is to place pictures, real objects, written labels, or combinations of these on cards. Each card represents one element in the domain being studied. The informant is asked to classify all of the elements by placing the cards into piles. The respondents are allowed to form as many or as few piles as they want, based on any similarities or differences they perceive among the elements. The final groupings represent their individual typology of the domain. This information can then be stored as a simple computer data base and analysed by one of several ethnographic programmes which create a numerical comparison of the variables called a distance matrix. Distance matrices can be analysed using statistical techniques which transform the numbers into a visual representation of the relationships of informants to other informants, or of variables to other variables. The two most common statistical techniques associated with the use of these methods are cluster analysis and multidimensional scaling (Kruskal and Wish 1978). The cluster analysis technique can be used to create and explore cultural typologies of the domain. It allows a researcher to identify hierarchical structural relationships in a complex data set. The multidimensional scaling (MDS) analytical technique is used to uncover the "hidden structure" or underlying relationships within complex data bases (Kruskal and Wish 1978). MDS allows a researcher to analyse an extremely complex set of data for underlying conditions, principles, or associations. Both of these techniques are complimentary to the qualitative and descriptive approaches common in ethnography. As an example, Trotter and Potter (1993) conducted an HIV risk pile sort with Navajo teenagers, using a list of risks which had been generated in focus groups and ethnographic interviews with Navajo people.

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They were interested in the ways that the teenagers related the risks in their lives (including alcohol, drug, and HIV related risks) to each other. The results of the project demonstrated that the students were linking risks within bounded risk areas (e.g. drug risks, school risks, violence risks, etc.), and that the linkages between those areas were weakly associated. Two works (Weller and Romney 1988; Bernard 1988) provide detailed descriptions on how these techniques can be integrated into other types of ethnographic research.

### 3.3.3.3 Consensus Theory

Consensus theory is a method that allows an ethnographer to explore a consensual description of a cultural domain, while simultaneously assessing individual informants' expertise in that domain. These assumptions about the nature of "cultural truth" and informant accuracy are derived from a model of culture that is probabilistic in nature. Consensus theory models of culture are developed through a formalised set of questions about similarities and differences in shared experience and knowledge on the part of informants. Consensus theory melds ethnographic survey questions with a formal mathematical model based on approaches used by psychometricians in test construction, and influenced by signal detection theory and latent structural analysis procedures (Romney, Weller, and Batchelder 1986). One important attribute of consensus theory is that it is designed to work with a common condition in ethnography, the situation where we know the correct questions to ask, but do not know which are the correct, or the most nearly correct cultural answers to those questions. At the present time, consensus modelling can be accomplished through the use of true-false, fill-in-the-blank, and multiple choice question formats, and is being tested for use with rank order formats. Cultural knowledge that cannot be assessed through these formats cannot be tested using this process, at this time. Some recent uses of consensus theory include measuring intra cultural variation in diseases judged on concepts of contagion, severity, hot/cold treatments, consensus about the existence of a subculture of corporeal punishment (Weller, Romney, and Orr 1986), and a study of hypertension among Ojibwa Indians in Canada (Garro 1987). Recently consensus theory modelling to HIV related beliefs has been applied in four cultures: Mexican Americans in South Texas, rural Guatemalans, Puerto Ricans in Hartford, Connecticut, and a sample of individuals in central Mexico. The test is demonstrating difference in knowledge, beliefs and awareness of AIDS in these four cultural groups. The success of this method indicates that it can be advantageously applied to consensus research on issues such as a cultural model of drug abuse, issues in the punishment of drug abusers, and the study of cultural models of drug treatment programmes, to name a few.

There are also a number of other systematic ethnographic techniques that should be mentioned. These include the cultural models approach (Quinn and Holland 1987, Price 1987), anthropological decision modelling (Gladwin 1980, 1989; Plattner, 1982), and the processes for using ethnographic interviews to create culturally competent survey questionnaires (Converse and Presser 1986). These techniques are more thoroughly discussed in Bernard (1988) and in the Sage publication series on qualitative research methods.

### 3.3.4 Network Analysis Approaches

Many of the issues surrounding drug abuse cannot be resolved by simply studying individuals. It is necessary to understand drug using behaviour within the context of groups, as well. Peer influence has been identified as an important risk factor for drug use. The influence of personal networks ranges from pressure to initiate drug abuse to social support systems that help in recovery for addicts. Therefore, relationships can be the building blocks for the analysis of the entire natural history of drug use and addiction.

Network theories have evolved over the past 40 years within a number of research contexts that are relevant to drug abuse research, in general (Wasserman 1993, Galaskiewicz and Wasserman 1993). More specifically, there are three primary models for network data collection and analysis in drug abuse research (Needle et al. 1995, Trotter 1995, Trotter et al. 1994). These include intensive ethnographic network mapping, a process that allows an ethnographer to thoroughly describe the participants, the behaviours, the kinship and friendship ties, and the consequences of small bounded drug using groups in the community. The second approach is an ego-centric or personal network approach. In this method, individuals are asked to list and describe the people they interact with, and the basis for those interactions, such as joint drug use, sexual relationships, trust, social support, etc. This data can be analysed as survey data, and the differences in personal networks can be analysed statistically. Finally, all of the individuals in a network can be asked to identify their reciprocal relationships with one another, allowing for full relational network analysis to be performed on the group as a whole, identifying such conditions as network centrality, connection, influence patterns, density of relationships, roles and statuses, and measures of power in the network.

Ethnographic network mapping is accomplished through extensive qualitative interviewing at the community level. In many cases drug using networks are the primary basis for purchasing, distributing, and the social usage of drugs. The composite ethnographic characteristics of the networks can be used to create a "drug network typology" or classification system, and can describe the individual and group context of drug use (such as crack houses, local manufacturing and distribution, etc.). Trotter and colleagues (Trotter et al. 1994, Trotter et al. 1995) have demonstrated that this type of data is extremely useful for targeting intervention and education activities for the highest risk groups, based on multiple risk criteria. The data can also provide important information about the sub-epidemics that are likely to be part of drug use in network groups.

The second approach to drug related network analysis is labelled ego-centred or personal network analysis. This approach describes an index individual (ego), and all of the individuals that he or she recognises as being connected in terms of specified social relationships. The data associated with ego networks (size, gender and ethnic composition, retrospective conditions, etc.) can be identified and described as a "typical" network profile and can be associated with other psychosocial variables. A number of policy and research uses for this type of data collection are available (Needle et al. 1995, Williams, 1993, Trotter et al.

1995). The types of key attributes that can be described for a population (or sample) includes: the number of people each ego reported "spending time" with; the ethnic composition of personal networks; the risk factors assessed for ego and companions; sexual activity in the network; the types of drugs used and drug use locations for the network; and any other risk factors that may be important clues to the local context of drug use, and differences in drug use that varies by the type of personal network of drug users.

The third approach to network based drug research is the use of full (relational) network analysis procedures (Knoke and Kuklinski 1982). This approach requires the researcher to identify a naturally occurring drug network, and to explore the relationships among all of the members of that network. This is accomplished by either observations or interviewing, or the two combined. In each case, it is important that the questions or the observations allow the researcher to explore the reciprocal actions that take place between each member of the network and each other member. All of the question asked, and the observations conducted, focus on relationship questions, such as, "who uses drug with each other, and under what conditions?", "who attends social events with each other?", "Who trusts whom?" and "who shares drugs, paraphernalia, etc. with whom?" These types of investigations are in the early stages for drug related issues, however they appear to be very valuable for drug research (Needle, et al. 1995). Some of the issues that they allow researchers to explore include: determining the primary sources of influence and communication in drug networks; allowing better targeting of individuals for interventions that will influence the behaviour of the remainder of the network; using the network itself to set group goals and reinforce or change group norms in relation to risk taking behaviours. Our current evaluations of this approach indicate there are numerous advantages in using a multiple method network approach drug research programmes. The advantages include: i. Network based outreach is an effective mechanism for establishing the contacts and relationships necessary to conduct effective research programmes in hidden or hard to reach populations; ii. Recruiting individuals into programmes can be done within the context of the same social group that will reinforce programme objectives, or oppose them; iii. Keeping track of network members is a natural function of the gatekeepers of the network. This can greatly assist the follow-up phase of any project; iv. Network intervention with drug groups fits most public health models and provides a more cost effective approach to harm reduction.

On a cautionary note, Diaz et al., (1992) note that the main methodological issue facing network sampling and analysis are the difficulty in deriving a sample that correctly estimates parameters of very large populations (large cities, nations, etc.), rather than the smaller components of that society. The sampling frame for networks makes it easy to study the latter, and more difficult to characterise the social background, the causes, means and specific circumstances surrounding the problem under study for whole populations. For this reason, network analysis has generally been used in social sciences for intensive analysis of the relationships that might exist within relatively small societies or groups such as drug subcultures, neighbourhoods, or influence groups (Trotter et al. 1994, Trotter 1995). The approach is specially relevant for studying the diffusion and growth of epidemics (from non-users to drug users) and transmission of related diseases (i.e. HIV, sexual transmitted diseases,

hepatitis, etc.), since the most important vectors for these conditions are interacting people (friends, partners, acquaintances, drug distributors etc.).

#### **4. Advantages and Limitations of Qualitative Approaches**

Qualitative research methods present both advantages and limitations based on the types of research questions that are being asked, and the types of answers that are expected to result from the research effort. These methods should be chosen in concert with the research context, the need for exploratory or confirmatory data, and the style of presentation of information that best fits the research subject.

The benefits of a qualitative research approach include a significant ability to explore unknown territory, whether it is culture, lifestyle or the daily behaviour of unresearched populations. Qualitative research is also an excellent choice for monitoring changing conditions, especially where the direction of change is unknown or unpredictable. Another significant benefit of qualitative research methods is that they allow people to speak for themselves. The researcher is responsible for identifying and confirming cultural patterns and presenting those findings through the words and actions of the people in the culture. But the words come from the people themselves and remain true to the culture. This process is very important in humanising social science. At its best, it avoids any regression towards a purely numeric depiction of human affairs, one that reduces the complexity of human life to a series of means and trends. This can be especially important to policy makers and to those who need to understand the results of scientific research on human beings. Good qualitative research can be understood by anyone, because it is presented in the same way that everyday life is presented in any culture, through stories, examples, descriptions, and discussion of processes.

Finally, qualitative research is excellent for localising generic findings from broader scale research, and is also excellent for contextualizing programmes for local language use, variations in values and environmental considerations. This type of local modification is particularly important in areas where regional, or broader, cultural differences exist that would make generically designed programmes and interventions less effective. Focus groups and key informant interviewing in particular are often very valuable in this instance.

Beyond the need for pure qualitative research, there is often a need for combined qualitative-quantitative studies. These studies often benefit from having both a probabilistic sampling framework combined with statistical validity of findings, with those findings being explained and expanded by the qualitative data and analysis. There are also a number of research questions that can only be answered appropriately by quantitative methods, and qualitative data should not be applied to these situations, with the exception of the formative periods of the research problem and design. The primary conditions that demand pure quantitative design are conditions where there is a need to control variables and the presentation of options (as in experimental and quasi-experimental designs) and where there is

a need for broadly representative or statistically driven data (surveys, some epidemiological studies, and demographic data). The conditions that generally apply to the appropriate application of different research designs generally fall within the general need for reliability replicability and validity. These issues are further discussed in Kirk and Mulleins (1984) work on qualitative approaches to validity and reliability, and in the extensive discussion of these issues, as well as sampling frameworks for qualitative research, in Johnson's (1990) work on selecting ethnographic informants.

## 5. Conclusions

This chapter has provided a brief overview of qualitative research methods and designs that are appropriate for the exploration and analysis of drug abuse within its appropriate cultural context. The methods described range from complex, multi-method and relatively lengthy ethnographic studies, through qualitative designs targeted at specific drug use conditions (complimentary to on-going quantitative data collection) to advanced methods that systematically explore cultural beliefs, values, and living processes. Correctly employed and analysed, they bring a significancy enhanced analytical power to research on drug abuse and drug use conditions, beyond those available in a purely quantitative research repertoire.

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