

## EXECUTIVE SUMMARY

- (1) This is a three-year longitudinal study that examines the demographic, social, psychological, and treatment factors that affect the pathway to relapse/abstinence of chronic drug abusers in Hong Kong. It also describes the addiction history and pattern of past treatment episodes among chronic drug abusers. Recommendations for possible improvements of existing drug treatment and rehabilitation programs and services are made on the basis of the findings and their implications.
- (2) In the analytical framework of the study, the effects of independent variables belonging to five domains on the dependent variable of drug-use/abstinence during the period under study are examined in the context of multivariate analysis leading to a path analysis. The domains are: addiction history and past treatment domain, normal functioning domain, psychological domain, social capital domain, and social environmental domain.
- (3) The research design consists of two methodological components. The first one is a longitudinal survey, which involves the collection of survey data at three time points. The second component is the use of two qualitative methods. Focus group sessions, eleven in total, were organized for chronic drug abusers to talk about and share their experiences in their addict careers. An ethnographic study of a small number of cases (six) of one and half years of duration was conducted for the collection of more in-depth information on these cases.
- (4) In the survey, three waves of interviews were conducted, at 12-month intervals. In the 1<sup>st</sup> wave of interview, questions pertaining to the subject's drug-use/drug-free status in the period of six months before the interview was also asked. Thus, in addition to drug use information on the two 12-month intervals between the three waves of interviews, information on an additional 6-month interval that was prior to the 1<sup>st</sup> wave of interview was also obtained. This period was designated as Interval A. The 12-month period between the 1<sup>st</sup> interview and the 2<sup>nd</sup> interview was called Interval B, and that between the 2<sup>nd</sup> interview and the 3<sup>rd</sup> interview was designated as Interval C.
- (5) Subjects for the survey interviews were recruited from various drug treatment and rehabilitation programs in Hong Kong, according to the study's criteria of "chronic," which are "a minimum five years of addiction history" and "at least two relapses in the past." Altogether 547 subjects were successfully interviewed in the 1<sup>st</sup> wave of interview, 401 in the 2<sup>nd</sup> wave, and 319 in the 3<sup>rd</sup> wave. The overall retention rate of subjects from 1<sup>st</sup> wave to 3<sup>rd</sup> wave was 58.3%, a very satisfactory rate resulting from good contact work with subjects. The final panel of 319 subjects was used in the present analysis, as these subjects had gone through all the three waves of interviews.
- (6) In data collection and analysis, information pertaining to the whole interval was used, rather than information pertaining to the point of time of the interview.

The reason was that, if a subject was in a treatment program during the interview, his/her drug use at that time would be biased towards “no drug use,” due to forced abstinence in a treatment setting. To better reflect the drug-use/drug-free performance of the subjects, information pertaining to the whole interval is more relevant. To be consistent with the measurement of the variable of drug-use/drug-free status, all independent variables of the various domains were measured on an *interval-based* manner.

- (7) The dependent variable concerning drug-use/drug-free status was operationalized as “percentage of drug-free weeks,” which refers to the percentage of weeks that the subject was drug-free among the total number of weeks that he/she was not in a residential program in the interval concerned.
- (8) Regarding addiction history and past treatment pattern, the sample of chronic drug abusers in the study generally started their first drug use during adolescence (18% of subjects first used at age below 15; mean age of first use = 18.1). Heroin was the most common drug of first use. The major reasons of drug initiation were curiosity and peer pressure. Smoking seemed to be a gateway drug, but not alcohol. The mean number of past treatments was 8.4. The majority of decisions to seek treatment were made by the subjects themselves, although family, friends and social workers could also influence them. The Methadone Treatment Program was a modality commonly used by most subjects, regardless of the length of addiction. Voluntary programs were more commonly used by older subjects than younger ones.
- (9) In Interval A, about three-quarters of the subjects had used heroin. Among these subjects, three-quarters of them continued to use heroin in Interval B, and among them, 57% of them continued to use heroin in Interval C. There was a tendency for heroin users to reduce their frequency of use through the intervals. Half of the heroin users were injection users in Interval A, but the percentage of injection users somewhat decreased in Intervals B and C.
- (10) Throughout the three intervals, 18% of the subjects were able to remain drug-free, and 25% were not drug-free in Interval A and/or Interval B but became drug-free in Interval C. On the other hand, 45% of subjects were non-drug-free in all intervals, and 12% became non-drug-free in Interval C, although they had been drug-free in Intervals A and/or B.
- (11) In the analysis of Interval B and Interval C, multiple regressions were performed for percentage of drug-free weeks in Interval C (PDFW-C), the major dependent variable. PDFW-C was regressed on all independent variables in Intervals C, B and A that had significant bivariate correlations with it. Those variables that remained significant had *direct* effects on PDFW-C. For each of these significant independent variables of PDFW-C, a regression was performed for it to be regressed on other variables in Intervals C, B and A. Those variables that remained significant were variables that had *indirect* effects on PDFW-C.
- (12) On the basis of the significant variables in all the above-mentioned multiple regressions, the final model showing their direct and/or indirect relationships

with PDFW-C was constructed. The method of path analysis was used to estimate the direct effect, indirect effect, and the total effect (sum of direct and indirect effects) of each independent variable on PDFW-C.

- (13) Path analytic results show that, in terms of total effect (sum of direct and indirect effects), self-efficacy in Interval C had the largest total effect on PDFW-C (.483), followed by percentage of drug-free weeks in Interval B (.317), self-efficacy in Interval B (.299), association with drug-using friends in Interval B (-.291), association with drug-using friends in Interval C (-.286), satisfaction with life in Interval B (.245), support from non-drug-using friends in Interval B (.244), percentage of drug-free weeks in Interval A (.228), satisfaction with life in Interval C (.225), and job attitude in Interval B (.193). Qualitative data collected from focus group sessions and ethnographic case studies were used to substantiate and interpret the meanings of the relationships shown in the final path model.
- (14) Findings of this study support previous overseas and local findings on the importance of the psychological variable of self-efficacy, and the social capital variables of association with drug-free friends and support from non-drug-using friends, in affecting the drug-use/drug-free performance of chronic drug addicts. They also point to the importance of chronic drug abusers' satisfaction with life, an active job attitude, and "pre-relapse abstinence" (i.e., percentage of drug-free weeks in previous intervals), which have not received as much attention as they deserve in previous studies.
- (15) Based on the major findings of the study, it is recommended that the improvement of the existing system of treatment and rehabilitation programs and services should involve:
  - i) the development of innovative program and service elements that could more effectively raise the self-efficacy of the clients,
  - ii) the building of social capital in the clients that could protect them against re-association with drug-using peers and facilitate the support of non-drug-using friends,
  - iii) helping clients to become more satisfied with their present lives,
  - iv) the inculcation of a correct job attitude in them,
  - v) the recognition of the possible contributions of pre-relapse drug-free periods to future long-term abstinence, and
  - vi) the establishment of a proactive body/unit that, through out-reach work and coordination with all treatment/rehabilitation agencies, could assess the needs of chronic drug abusers and bring them into the orbit of the social and health services available in the community.