The Validity of Student Self-Report of Risk Behaviors

Survey research can provide a valid profile of drug use, violence, delinquency, and other risk behaviors among adolescent populations and can be much less expensive than individual interviews. A considerable amount of evidence strongly suggests that data from self-report questionnaires are largely valid when certain criteria—such as those used in the CHKS—are met (Johnston & O'Malley, 1985; Johnston, O'Malley & Bachman, 1998; Sussman, Dent, Burton, Stacy & Flay, 1995).

Researchers have shown that students report their behaviors accurately when assured anonymity versus not being assured (Williams, Eng, Botvin, Hill & Ernst, 1979), and that simple self-report measures of tobacco use under conditions of anonymity produce maximum reports of use (Sussman et al., 1995). Validation studies conducted in various settings (e.g., workplace) suggest that self-report surveys validly reflect actual drug use (Cook, 2001; Weatherby et al., 1994). The accuracy of self-report data varies by population surveyed (e.g., arrestees, workers, students, etc.) with criminal justice populations being least reliable (Magura & Kang, 2001). Student survey results have been generally valid (Sussman et al., 1995).

First and foremost, research has shown that student self-reports of sensitive behaviors improve as privacy and confidentiality are increased. Therefore, confidential and anonymous surveys at schools have been considered more valid than telephone or personal interviews at the home when parents may be present (Johnson & O'Malley 1985; Gfroerer 1985, 1993, 1997; Aquilino 1994; Homr et al. 1996; Tourangeau & Smith 1996; Turner et al 1992, 1996).

One concern is that students over-report or exaggerate drug use in classroom surveys. Some studies have attempted to test this hypothesis by asking about non-existent drugs and have found no evidence of overreporting (Single et al 1975).

O'Malley, Bachman and Johnson (1983) found that various measures of self-reported drug use among high school seniors were reliable over time. Respondents were highly consistent in their reports of drug use over the three to four year period. Such consistency and reliability are necessary for a measure to be considered valid. In the examination of logically related drug use survey items, O'Malley and colleagues also found high degrees of consistency between the measures, suggesting that the measures were in fact getting at the same thing. In addition, students' report of drug use by unnamed friends, about whom presumably they would have less reason to provide inaccurate reports of use, was highly consistent with self-report use and trends in use.

It has been previously shown that reports of friends' use are highly related to self use (Sussman et al., 1995). When compared to interviews, Mensch and Kandel (1988) and McElrath (1994) found that self-report questionnaires yielded higher reports of drug use than interviews, due in part to increased confidentiality. Taken together, these factors lend credibility to self-report measures of drug use.

Sussman and colleagues (1995) report that simple student self-report measures of tobacco use under conditions of anonymity produce maximum reports of use. Conditions of anonymity generally refer to protocol which includes reading out loud to students statements of confidentiality, by not allowing students to write names on surveys, not having the classroom teacher walk around classroom as students complete their surveys, turning in answer sheets and placing

them in any order in large envelopes that the teacher does not access, and sealing the envelope in front of the class. All these procedures are used by the CHKS.

Crime Incidence Data

As far back as 1969, the National Commission on the Causes and Prevention of Violence call the fact that many delinquent acts go unobserved or unreported the "dark figure" of crime—the gap between the amount of crime recorded by police and the amount of crime committed. The origins of this gap lie in the ability of most juveniles to keep illegal acts secret and the failure of people to report them, either out of fear of reprisal, lack of knowledge of how to report, and little confidence that something positive will happen. Second, "statistics are collected on the local level by people who may have a vested interest in seeing their reports turn out in a way that favors them" (Emprey 1982:1-3). Interpreting the meaning of changes over time periods is even more complicated as changes in staff, staff expectations, or norms may affect the reporting process itself. Thus a change in reported incidents may not reflect a change in violence at all, but rather of reporting. As a result, national surveys in the past have found no increases in self-reported delinquency at the very time that crime statistics were being cited that it was increasing. Thus official reports of youth crime increases "must be treated with considerable caution" (Gold & Reimer 1974).

In particular, as society becomes more aware of a problem and attempts to do something about it, the size of the problem as measured by incidents seems to increase. Thus Penick and Owens (1976:153) concluded that "it can be argued that official statistics on crime, whether compiled by the police, the courts, or any other administrative agency, can never provide a definitive measure of crime." They are unsatisfactory, "partly because of offenses that are never reported… and partly because of wide variations in the way reported crimes are recorded." (Emprey 1982:105). As a result, self-report of crime has consistently found many more juveniles report having violated the law than official statistics would indicate. Studies indicate that at least 9 our of 10 illegal acts either go undetected or unacted upon.

Another limitation of official statistics is they are of limited value for understanding how involved individuals are in delinquent acts and what group characteristics are associated with high involvement that might be useful for guiding intervention efforts.

References

Cook RF, Bernstein AD, Andrews CM. Assessing drug use in the workplace: A comparison of self-report, urinalysis, and hair analysis. In: *The validity of self-reported drug use: improving the accuracy of survey estimates*. NIDA Research Monograph No. 167. Washington, D.C.: U.S. Government Printing Office.

Emprey, L.T. (1982). American delinquency: Its meaning and construction. Homewood, Ill: Dorsey Press.

Gold, M., & Reimer, D. 1974). Changing patterns of delinquent behavior among Americans 13-16 years old: 1967-1972. Crime and Delinquency Literature 7, 483-517.

Harrison L. The validity of self-reported drug use in survey research: An overview and critique of research methods. In: *The validity of self-reported drug use: improving the accuracy of survey estimates*. NIDA Research Monograph No. 167. Washington, D.C.: U.S. Government Printing Office.

Johnston LD, O'Malley. Issues of validity and population coverage in student surveys of drug use. In: B.A. Rouse, N.J. Kozel, & L.G. Richards (Eds.), *Self-report methods of estimating drug use: Meeting current challenges to validity*. NIDA Research Monograph No. 57. Washington, D.C.: U.S. Government Printing Office.

Johnston LD, O'Malley PM, Bachman, JG. National survey results on drug use from the Monitoring the Future Study, 1975-1997. U.S. Department of Health and Human Services, National Institute on Drug Abuse. NIH Publication No. 98-4345. 1998.

Magura S, Kang S-Y. The validity of self-reported cocaine use in two high0risk populations. In: *The validity of self-reported drug use: improving the accuracy of survey estimates*. NIDA Research Monograph No. 167. Washington, D.C.: U.S. Government Printing Office.

McElrath KA. A comparison of two methods for examining inmates' self-reported drug use. *Int J Addict* 29(4):517-24, 1994,

Mensch B, Kandel D. Underreporting of substance use in a national longitudinal youth cohort: Individual and interviewer effects. *Pub Opin Q* 52:100-124, 1988.

National Commission on the Causes and Prevention of Violence. (1989). "American criminal statistics: An explanation and appraisal. Crimes of Violence, Vol. 2. Washington, DC: US Government Printing Office

O'Malley, P.M., Bachman, J.G., & Johnston, L.D. (1983). Reliability and consistency in self-reports of drug use. *International Journal of the Addictions 18*(6), 805-824.

Penick, B.K.E., & owmens, M.E., eds. (1976). Surveying crime. Washington, DC: National Academy of Sciences.

Sussman S, Dent CW, Burton D, Stacy AW, Flay BR. (1995). Developing school-based tobacco use prevention and cessation programs. Thousand Oaks, CA: Sage, 1995.

Weatherby NL, Needle R, Cesari H, Booth R, McCoy CB, Watters JK, Williams M, Chitwood DD. Validity of self-reported drug use among injection drug users and crack cocaine users recruited through street outreach. *Eval Prog Plan* 17(4):347-55, 1994.

Williams CL, Eng A, Botvin GJ, Hill PH, Ernst LW. Validatoin of students self-reported cigarette smoking status with plasma cotinine levels. *AJPH* 69(12):1272-4, 1979.