

SURVEYING TEENS: ISSUES RELATED TO DATA COLLECTION IN SUBSTANCE ABUSE SURVEYS

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1. Introduction

Nonresponse affects at least some aspect of virtually every survey. Data collection rates and overall response rates are influenced by many factors including sampling frame/target population, mode of data collection, questionnaire design and subject matter (Hidioglou et al. 1993). The teenage population introduces another factor that can have significant impact on nonresponse rates, namely parental consent. In fact, according to the 1994 Goals 2000: Educate America Act, an amendment to the Family Education Rights and Privacy Act (FERPA) Grassley Amendment, “parents are entitled to inspect all instructional materials used in connection with any survey, analysis, or evaluation. No student will be required to submit, without the prior written consent of the parent, to any survey, analysis, or evaluation that includes questions on political affiliation, mental or psychological problems that are potentially embarrassing to the student or his or her family, sexual behavior or attitudes, illegal, anti-social, self-incriminating, or demeaning behavior, critical appraisals of other individuals with whom the student has close family relationships, legally recognized privileged relationships (e.g., lawyers, physicians, psychologists, ministers), income, other than that required by law to determine eligibility for a program, or religious affiliation or belief.”

Teenagers who are selected for inclusion in the sample for these studies who are actually willing to participate in the study but who fail to secure parental consent become unit-level nonresponders. Likewise, those teenagers who refuse to participate in the survey after parental consent is issued are also classified as nonresponders. In this paper we will briefly investigate issues surrounding data collection for substance abuse surveys targeted at teenagers between the ages of 12 and 19 and describe the possible influence these issues have on survey response rates.

2. Parental Consent

According to the Nuremberg Code (1949), any research investigator has a legal and ethical obligation to ensure that the prospective research participant has sufficient knowledge and comprehension of the elements of informed consent. However, if the participants are under 18 years of age (or under the age of majority in a particular state) parental consent is usually required. Varying degrees of parental consent, rang-

ing from passive to active, can present challenges when attempting to collect information from teenage populations.

Research aimed at collecting routine or nonsensitive information from teenagers may not require a rigorous consent program. In this scenario the researcher is likely to employ a “passive consent” strategy in which consent is assumed unless otherwise overridden by the parent/guardian. For example, many school districts have a policy of notifying parents of any forthcoming research activities and will often make use of some passive consent strategy to enlist students into the study.

For those studies that are federally funded and involve data collection of a more “invasive” nature (such as drug use/abuse), written parental consent is often required (as cited by the Hatch Amendment (1978) and others). This strategy for active/informed consent is more stringent than the passive consent strategy in that consent must be formally granted—informed consent is not assumed consent. Parents are often informed of the research project involving their teenager and must sign a consent form in order for the teenager to participate in the particular study/survey. Active consent generally provides a higher level of protection but a lower level of survey response for teenage subjects when compared to those levels provided by passive consent strategies.

In practice, University Internal Review Boards (IRB) or similar School District review boards often enforce the legislation regulating consent. Specifically, the IRB’s comply with regulations of the Department of Health and Human Services for the protection of human subjects involved in research (Office of Human Research Protections). As set forth by the U.S. Code of Federal Regulations, Title 45, the requirement of written informed consent applies specifically to any research supported by a federal department or agency. Some studies involving normal educational procedures or those that do not involve any personal or psychological assessment may be exempted from the “active written consent” requirement. Studies whose funding does not come from federal agencies may also be exempt from requiring active consent regardless of the subject matter.

Apart from the IRB regulations, school districts and principals can impose stricter guidelines surrounding the inclusion of teenagers into studies. In fact, since many drug surveys sample classrooms throughout the nation, the decision between using active and passive consent is often determined by the policies of the school district or principal to which the classroom/school belongs. For example, in one school we questioned, the district policy required passive consent, but this particular principal required active consent in order to

approve participation in the study. So it is possible that two classrooms (from two different schools) within the same district could be sampled and teenagers would be subjected to different parental consent requirements for the same study. Given that passive consent increases overall response to the survey, these results may be subjected to nonresponse bias even at the local level.

3. Nonresponse Mechanisms

Surveying adults about their substance abuse presents difficulties in data collection due to the sensitive nature of drug use. Surveying the teenagers of these adults about their own substance abuse creates an even more complicated response structure since minors often need parental consent in order to participate in substance abuse surveys.

Johnston and O'Mally (1985) indicated that school-administered surveys have relative advantages over telephone or household surveys for obtaining information about illicit behaviors, such as substance abuse, since school-based surveys offer a greater level of anonymity for the teenager. The authors also suggested that when teenagers answer questions about drug use in the presence of a parent they may become concerned about the ramifications of the information they provide. However, parents may also be concerned about the ramifications of the information (potentially incriminating) that their teenager may provide to the survey organization. Such a perspective may influence the parents to withhold parental consent, especially if they are aware of their child's illicit behavior. In either case, the quality of both responses and subsequent statistical estimates may be compromised.

Gelles (1978) also suggested that self-administered surveys in school settings may offer the greatest level of privacy which may increase the likelihood of obtaining more reliable data. However, with school-based surveys consent issues become more of a critical issue. For example, the Monitoring the Future Study (MTF) is a national study of U.S. teenagers' beliefs, attitudes and behaviors administered by the Institute for Social Research at The University of Michigan. The survey collects information from students in classrooms across the U.S. Since some of the local school districts have imposed written consent requirements on such studies, while other districts do not, the MTF Survey utilizes both active and passive consent strategies to collect data from its teenage sample. According to MTF officials, an average of approximately 20% of the sample is lost due to parental nonresponse.

In practice, the final unit-level response rates from teenagers (θ_{TR}) is computed as a product of two factors: the response rate/consent rate from parents (θ_{PC}) and the assent/response rate from teenagers ($\theta_{TC|PC}$) who have obtained the proper consent. Since the age of majority differs by state and since many drug surveys use a national probability sample, it is likely that parental consent can influence the response rates from not only the 12 to 17 year old group but also from the 18 to 24 year old age group from some states. This issue becomes extremely relevant when you are trying to compare response rates across states for those surveys that are stratified by state. Some surveys utilize national area samples and oversample in some areas of

known minority concentration. Additionally, given that requiring written parental consent often results in lower levels of participation/response among members of minorities and among those with lower socio-economic status, care must be taken in order to adjust the responses for nonresponse that occurs from either the teenager herself or from the parents of sampled teenagers. There is an extensive body of literature currently available for adjusting survey estimates for response biases for underreporting/falsifying information from teenagers in drug surveys including Johnson, Gerstein and Rasinski (1998) and Biemer and Witt (1997). However there is little work on adjusting the nonresponse rates of teenagers to compensate for failure to receive parental consent. Since the parents themselves are not the respondents of interest in these teenage substance abuse surveys, typical methods for nonresponse adjustment may not be possible.

In the case of drug abuse surveys requiring active written parental consent, two types of unit-level nonresponse rates may be derived from those teenagers eligible for the survey: θ_{NPC} = proportion of eligible teenagers who did not obtain parental consent and $\theta_{TNC|PC}$ = proportion of teenagers who refuse to participate in the survey once parental consent is obtained. Note: $\theta_{TNC|PC} = 1 - \theta_{TC|PC}$. It is possible that the teenagers who refused to participate in the survey (after parental consent was given) may be vastly different from those teenagers who could not participate in the survey due to lack of parental consent. Using typical imputation methods (or other nonresponse adjustment methods) based on those teenagers who responded to the survey won't properly account for those teenagers who did not respond due to lack of parental consent. Methods to incorporate the total consent nonresponse ($\theta_{NPC} \times \theta_{TNC|NPC} + \theta_{PC} \times \theta_{TNC|PC}$) are necessary in order to produce truly unbiased estimates of drug use among the target teenage population.

By using passive consent it may be possible to minimize the proportion of eligible teenagers who do not obtain parental consent (i.e. make θ_{NPC} small). In this situation, nonresponse adjustments can then be used to compensate for the $\theta_{TNC|PC}$ percentage of nonresponders. When active parental consent is used, one would expect θ_{NPC} to be larger, prompting the need for additional information to control for the potential bias resulting from collecting data from only those teenagers for which parental consent is granted. As mentioned earlier, it is conceivable that teenagers of non-consenting adults may have very different drug abuse habits when compared to those teenagers who obtained parental consent.

4. Examples

The National Household Survey on Drug Abuse attempts to provide a picture of drug use for persons aged 12 and older within the (noninstitutionalized) United States. Teenagers selected for inclusion in the sample must obtain active written parental consent prior to the completion of the youth segment of the questionnaire. For the 1999 NHSDA, $\theta_{PC} = .94$ and $\theta_{TC|PC} = .91$ implying that $\theta_{TR} = .86$. The National Survey of Parents and Youth (NSPY) is another national household survey that attempts to measure drug attitudes,

drug abuse and exposure to the “Anti-Drug Campaign.” This survey selects one parent and one teenager from eligible households. Direct, written parental consent is required prior to surveying the sampled teenager. For the 2001 NSPY wave $\theta_{PC} = .93$ and $\theta_{TC|PC} = .99$ implying that $\theta_{TR} = .92$.

The National Youth Tobacco Survey (NYTS) was developed to measure the tobacco-related beliefs, attitudes and behavior of youth, and the pro- and anti-tobacco influences to which they are exposed. The anonymous, self-administered school-based questionnaire includes questions about use of various tobacco products, exposure to environmental tobacco smoke and factors that encourage smoking. For the 2000 NYTS θ_{PC} was not computed as the survey assumed passive consent. However, the survey reported that 90% of schools that were surveyed participated in the survey and $\theta_{TC|PC} = .93$ implying an overall response rate of 84%. The 10% of schools that did not respond may have chosen to use active consent in the data collection process, but this mode of consent was not supported by the NYTS. In the case of zero school-level nonresponse, one would expect that the overall response rate for the NYTS would be higher when compared to either the NHSDA or the NSPY, since the NYTS utilizes passive parental consent strategies.

5. Conclusions and Future Work

Inherent in the household survey setting, responses from teenagers may be subject to many biases including parental influence or fear of consequences from reported illicit behavior. To increase the reliability of information about teenage substance abuse, many surveys aimed at estimating illicit teenage behavior use self-administered questionnaires that are distributed at the school-level. In many of these studies surveyors must obtain active written parent consent prior to interviewing teenagers about illicit drug use. Such surveys generally have a larger target population than just teenagers. However, national surveys such as the NHSDA aim to provide estimates of illicit drug use for three specific age-based post-strata: 12–17, 18–24 and 24–36. Because the age of majority varies by state (13.5% of the states within the U.S. have an age of majority other than 18), consent non-response may effect estimates in both the 12-17 as well as the 18-24 year old age classes.

In order to fully understand the true effects of consent nonresponse on the overall estimates of teenage substance abuse, efforts must be made to track teenagers for whom no parental consent is given. In some cases, it will be unlawful to obtain any information from these teenagers if in fact their parents refused to give written consent. However, in some cases, failure to provide active written consent does not imply a desire to participate. For example, in some inner-city areas or areas that are predominantly populated by members of minority ethnic groups, a 70% parental non-response rate has been reported by officials from the MTF study. In follow up studies MTF researchers discovered that this non-response was not synonymous with a desire not to participate in the study. In these cases, follow-up efforts can be made to obtain information from these teenagers and an attempt can be made to determine whether these teenagers’ drug use

differs from that of the teenagers for which consent was obtained. Adjustments can then be made to produce unbiased estimates of teenage drug use.

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