

S24 SEXUAL BEHAVIOUR.

**RESPONSE RATE AND SELECTION BIAS IN A SEX SURVEY: AN EMPIRICAL
TEST**

Osmo Kontula, Ph.D.

The Population Research Institute

The Family Federation of Finland

P.O.Box 849

FIN-00101 Helsinki

FINLAND

tel +358-9-22805123

fax +358-9-6121211

e-mail: Osmo.Kontula@vaestoliitto.fi

ABSTRACT

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Osmo Kontula, Ph.D.

It has been hypothesized and in some cases also shown that respondents are earlier initiators and sexually more active than non-respondents. One method to test the validity of this hypothesis is to analyze retrospective questions that have been replicated in several surveys and check if the responses vary according to the response rates in different age-cohorts.

There has been conducted three national population sex surveys in Finland. In the first one (1971) response rate was 91%, in the second (1992) 76%, and in the third (1999) 46%.

Results based on cohort analysis don't give evidence that considerably lower response rate would have a major impact into the results of a national sex survey. This is especially true for women in each age group. For older males results were unexpected. The monogamic males were more active to participate to the latest survey.

RESPONSE RATE AND SELECTION BIAS IN A SEX SURVEY: AN EMPIRICAL TEST

Background

Response rate has been argued to have a major impact into the results of national sex surveys. It has been hypothesized and in some cases also shown that respondents are earlier initiators and sexually more active than non-respondents. Selection may happen at least due to demographic characteristics of responders, sexual activities, sexual attitudes, sexual orientation and a psychological predisposition to disclose personal information.

One method to study and test this hypothesis is to analyze the responses of different generations/cohorts to similar retrospective questions/items in several sex surveys conducted during the longer time period. If response rates varies considerably it is possible to check if the results of individual surveys are stable or vary according these rates.

Method

There have been conducted three national population sex surveys in Finland. First, in 1971 there were 2188 (age-group 18-54) in-person interviews who also filled in self-administered questionnaire. The response rate was as high as 91%. For men it was 89% and for women 93%. Second, in 1992 data collection method was identical and the number of respondents was 2250 (age-group 18-74). The response rate was 76%, 74% for men and 78% for women. Third, in 1999 similar mailed survey was conducted with 1556 responses (age-group 18-81). The response rate was 46%, 38% for men and 53% for women. Young women (age-group 18-24) were exceptionally active. Their response rate was 75%.

In the end response rate was consequently even 45% lower than in the beginning (it decreased into a half). This could be estimated to create significantly different results when measuring sexual issues revealed in three surveys. Respondents were expected to be earlier sexual initiators and sexually more active in the latest survey.

Surveys have had several identical retrospective questions measuring sex education in childhood, ages of first dating, sexual intercourse, orgasm and marriage, and the age and stability

of the partners that the respondents had when they had their first intercourse. The other questions concerning sexual initiation dealt willingness to have intercourse, love to first partner, use of contraceptives in the first intercourse and the possible marriage with the first partner.

Some other questions measured issues that cumulate during the life course. These include number of sexual partners, lovers, abortions, parallel relationships and paid sex. It can be argued that these numbers should increase somewhat in each cohort during the life course in case if the selection bias would be about the same in each survey.

The 13 cohorts (by the years of birth) available and used to these methodological analysis were 1917-1921, 1922-1926, 1927-1931, 1932-1936, 1937-1941, 1942-1946, 1947-1951, 1952-1956, 1957-1961, 1962-1966, 1967-1971, 1972-1976 and 1977-1980.

Results

Proportion of respondents in different age-groups who lived in union, age of their first union or marriage, and number of children had not changed. The length of union was also identical in surveys 1992 and 1999. Families and relationships of respondents' were thus rather equal in each survey.

In cohort analysis results of three surveys were pretty much the same in retrospective questions that measured sex education in school, age of first dating (going steady), age of the first intercourse and age of the first orgasm (women). These findings were valid to women in each age-cohort and to young and middle-aged men. Results show that in 1999 female respondents represented their age cohort quite well even though their response rate was 40% lower than in 1971 and 25% lower than in 1992.

For older males (over 55 years) selection bias was shown. In 1999 survey men in these cohorts gave on average two years higher ages to their first dating (going steady), first sexual intercourse and first coital orgasm than in surveys in 1971 and 1992. Their first intercourse took also place with older and more steady partner than before, they were more often in love with their first partner, and they had more often (40% vs. 20%) married their first partner. These men had a more monogamic life pattern than what did the men in these cohorts before.

Discussion

Results don't give evidence that it would be self-evident that considerably lower response rate would have a major impact into the results of a national sex survey. This is especially true for women in each age group. For older males results were unexpected. The monogamic males were more active to participate to the latest survey. The hypothesis that earlier sexual initiators and sexually more active respondents would be over represented, if response rate will decrease considerably, was not confirmed.