1	Transactional sex among young people in Switzerland: a cross-sectional study
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Abstract

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Background. The aim of this research was to determine the prevalence and characteristics of youths having ever exchanged sex and to assess if there were differences depending on whether they had done it once or several times. We also investigated what they exchanged sex for and their relationship with the last person they did it with. Methods. Cross-sectional national survey carried out in Switzerland in 2017 among young adults. The 5,175 participants (51% males, mean age 26,3 years) who answered the question Have you ever received something or obtained an advantage in exchange for a sexual act? were divided into three groups: Never (96.8%), Once (1.5%) and Several (1.7%). Results. In the multivariate analysis, compared to the Never group, those in the Once group were significantly more likely to be males, to have a poor mental health, to be non-exclusively heterosexual and to have had 10+ lifetime sexual partners. Those in the Several group reported the same characteristics, but were also more likely to be younger at first sexual contact, to have their parents not living together, to report a lower socioeconomic status and a history of sexual abuse, and to have ever sent sexual images/videos of themselves. They were also less satisfied with their financial situation. Conclusions. Results indicate that transactional sex is a reality for some youths in Switzerland and health professionals dealing with them should include this question in their sexual anamnesis. From a public health perspective, sexual education and prevention campaigns should include this phenomenon. Keywords. Youth; Transactional sex; Sexual behavior; Switzerland

Introduction

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Transactional sex is defined as exchanging sex for money, goods or an advantage(1). Transactional sex differs from prostitution in the sense that it is not a regular behavior and it is not limited to exchanging sex for money (2, 3). Research on transactional sex among young people is relatively scarce in Western countries (4) and often related to trading sex specifically for money(5, 6), drugs(7) or both(8-10). It is also often limited to specific populations such as university students (11), youths in foster care(6), homeless youths (12) or youths seeking testing for sexually transmitted infections (STI) (13). Prevalence rates for transactional sex range from 0.4% among 8th grade students (mean age 13.6 years) in Hong-Kong (14), to 16.3% among vulnerable youths in the US (10). A survey among university students in Germany found a 7% rate (15). Divergences in the terminology used in research can explain part of these differences. For example, some authors employ very broad questions such as Have you ever sold sexual services?(2) or limited to financial exchange such as Have you ever had sex with someone who paid you to do so?(16), while others use much more explicit ones such as Have you ever received something (money, drugs, alcohol, gifts or other) in exchange for sexual contact (touching, oral sex, intercourse, or another activity of a sexual nature)?](17). Differences in prevalence rates also depend on the age range or the type of population studied. Moreover, some studies inquire about lifetime(2, 3, 8, 14, 16, 17) while others refer to the last 6(18) or 12 months (5, 19). Yet, studies rarely address the relationship these youths have with the person they exchanged sex with or what they received in exchange (other than money or drugs). Youth engaging in transactional sex are especially vulnerable because they are more exposed to health risks such as STIs(4, 8, 11), physical or sexual abuse(4, 20), substance abuse(4, 8), or psychological problems (4, 11, 20). However, primary care physicians rarely ask their patients about it and the prevalence in Switzerland is unknown. The aim of this research was to determine the characteristics of youths who had ever exchanged sex for money, goods or an advantage and to assess if there were differences depending on whether

they had done it only once or more than once. We were especially interested in comparing sex exchangers based on frequency because we hypothesize that those having done it only once may reflect a moment of distress while those doing it repeatedly may reflect more vulnerability and less access to basic needs. In addition, we also investigated what they exchanged sex for and their relationship with the last person they exchanged sex with.

Material and methods

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Data were drawn from the 2017 survey on the sexual health and behavior of young people (21). This representative national sample (in terms of age, gender, language and canton of residence) was provided by the Swiss Federal Office of Statistics based on young people aged 24 to 26 years on September 30th 2016 in Switzerland. This age range was selected in order to ensure that the majority of the participants would be sexually active and, at the same time, sufficiently young to be able to recall accurately the beginning of their sexual life. An invitation letter including the website link to complete the online questionnaire and a random personal code to access it was sent to all potential participants by postal mail. The final sample included 7,142 participants (response rate 15.1%, mean age 26.3 years when completing the survey in 2017). The protocol was approved by the Ethics committee in research of the canton of Vaud. A detailed description of the survey methodology can be found elsewhere(21). Out of the 7,142 participants, 5,175 (51% males) answered the question Have you ever received something (money, drugs, alcohol, gift, clothes, etc.) or obtained an advantage (being accepted in a group, having a good reputation, etc.) in exchange for a sexual act (caresses, oral sex, fellatio, cunnilingus, intercourse with or without vaginal and / or anal penetration or other activity of a sexual nature) with a person?, with 5 possible answers (Never, Once, 2-3 times, 4-10 times, more than 10 times) further divided into three groups: Never (N=5,007; 96.8%), Once (N=80; 1.5%) and Several (N=88; 1.7%). The three groups were compared on variables described in the literature (2, 3, 5, 8, 10, 11, 14, 16) as linked to sex exchange, such as sociodemographics (age, gender [Male / Female], migrant status

[Swiss-born/Other], family structure [Parents being together/Not being together], perceived family socioeconomic status (SES) at age 15 compared to other families in Switzerland [Average or better/ Below average], education level [Tertiary / Lower] and satisfaction with their current financial situation [on a scale from 1, Not satisfied, to 10, Very satisfied]). Groups were also compared on substance use (lifetime drunkenness episodes and cannabis use, both dichotomized as 10 times or more/less than 10 times) and mental health [Good/Poor; using the mental health inventory (MHI-5), a brief questionnaire with 5 items referring to the last 4 weeks(22)]. Sexual behavior data included age at first sexual contact (defined as any sexual act), having ever performed oral, vaginal or anal sex, lifetime number of sexual partners [10 or more/less than 10], ever being diagnosed with an STI, condom use at first and last intercourse, sexual orientation, and experience of sexting. Sexual orientation being a multidimensional and complex entity, we used three variables to define it as recommended by other authors(23, 24): self-identification, sexual attraction and sexual behavior. Self-identification was assessed through the question How would you describe yourself? with the following possibilities: heterosexual, homosexual, bisexual, I don't know/I am not sure and other. Attraction was measured with the question What best describes how you feel? with five possibilities ranging from attracted only to people of the same sex as me to attracted only to people of the opposite sex. Sexual behavior was based on the sex of the partners with whom they performed sexual acts (sexual contact, oral, vaginal or anal sex). By combining these three dimensions we created a variable distinguishing those being exclusively heterosexual (all aspects were reported as heterosexual) from those identified as non-exclusively heterosexual (at least one variable categorized as non-heterosexual). Additionally, as a recent paper(25) described transactional sexting as sending a self-made sexually explicit image or video in exchange for something else, we decided to include a variable on sexting. In our study, sexting was defined as having ever sent a sexual-related picture / video of themselves to someone (via email, cellphone, etc.). Finally, we conducted further investigations among those having ever exchanged sex by gender and by frequency [Once vs. Several]. We compared what they had received in exchange and their

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118 relationship with their last exchange partner. We also asked them if, in receiving the goods, they felt 119 obligated to have sex with them. 120 Statistical analysis 121 We used Stata 14 (StataCorp. 2015. Stata Statistical Software: Release 14. College Station, TX: 122 StataCorp LP) for all calculations. We first run bivariate analyses comparing the three groups (Never, 123 Once, Several). We used chi-square tests for categorical variables and ANOVA for continuous ones. 124 Subsequently, in addition to age at the time of the survey and gender, we entered all significant 125 (p<.05) variables in a backward stepwise multinomial logistic regression using *Never* as the reference 126 category. Using a backward selection, non-significant variables were thus consecutively eliminated 127 until no more variables could be excluded from the model. Results are given as relative risk ratios 128 (RRR) with 95% confidence intervals. 129 For the comparisons among those having ever exchanged sex, groups were compared by gender and 130 by frequency category (Once vs. Several) using a bivariate approach with chi-square tests. 131 To correct a slight over-representation of females from the French-speaking part of Switzerland, 132 analyses were weighted by gender and canton of residence. 133 **Results** 134 Overall, 3.2% of our sample had ever exchanged sex, with 1.7% of them having done it more than 135 once. 136 At the bivariate level, we found no differences between the three groups on age, gender, ever having 137 had vaginal or oral sex, and condom use at first or last intercourse. Age at first sexual experience and satisfaction with own financial situation decreased significantly with increasing sexual exchange 138 139 frequency. With the exception of being Swiss-born that presented an inverted-U shape, the 140 prevalence of all the other categorical variables increased along the frequency of sexual exchange (Table 1). 141

At the multivariate level, compared to the Never group, those in the Once group were significantly more likely to be males (RRR: 1.74), to have a poor mental health (RRR: 2.09), to be non-exclusively heterosexual (RRR: 2.56) and to have had ten or more sexual partners in their lifetime (RRR: 4.07). Compared to the Never group, those in the Several group were significantly more likely to be males (RRR: 2.48), to have their parents not living together (RRR: 1.74), to report a below average SES (RRR: 1.49) and a poor mental health (RRR: 2.76). They were less likely to be satisfied with their financial situation (RRR: 0.88), younger at first sexual contact (RRR: 0.88), and more likely to be nonexclusively heterosexual (RRR: 1.91), to report a history of sexual abuse (RRR: 3.86), to have had ten or more sexual partners in their lifetime (RRR: 7.17), and to have ever sent sexual images/videos of themselves (RRR: 2.37) (Table 2). Overall, money (48.8%), to have a good reputation (39.7%), and a gift (36.8%) were, by far, the most reported goods accepted in exchange for sex. Both by gender and by frequency category, these three items remained among the most frequently cited, although drugs was the second most reported among females (22.1%). Nonetheless, only to receive alcohol or clothes in exchange for sex showed statistically significant differences when compared by frequency, with those in the Several group reporting more often such exchanges (Table 3). In around half of the cases, both by gender and by frequency category, the last person they had exchanged sex with was an acquaintance who was older than they were. Significantly more females (19.2%) than males (7.4%) had felt obligated to exchange sex, and those having done it only once showed a marginal significance (p=0.051) to have felt obligated compared to those having done it more often (7.6% vs. 17.4%; Table 4).

Discussion

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Overall, 3.2% of our sample had ever exchanged sexual acts for money, goods or an advantage. This prevalence is similar to the one reported by Edwards et al. (8) (3.5%) in the United States (US) in a much younger sample (mean age 16 years) and higher than the ones in samples of US university students (2.1%) (11) or adolescents (2%) (16) or among Swedish adolescents (~1.5%) (2, 3). However,

a study among high-school students in Quebec found a prevalence rate of 4% (17) and one using the US National Longitudinal Study of Adolescent Health reached almost 5% (9). Although the prevalence rate in our sample is higher than the one found in a STI clinic (2.5%) (13), it is much lower than the one found in a vulnerable sample of US adolescents and young adults, where it reached 16.3% (10). As mentioned, the wording of the question, together with the age range and type of sample could explain some of the observed differences. Our results indicate that those having ever exchanged sex were almost equally distributed between having done it once (48%) and several times (52%), similar to other studies (2). The percentage of those having done it several times in our study is lower than what has been found among US university students (67%) (11) or among high-school students in Sweden (84%) (3). Four markers remained statistically significant, independently of the frequency of sex exchange: male gender, non-exclusively heterosexual orientation, poor mental health and higher number of lifetime sexual partners. Several studies have reported that sexual exchange was significantly more frequent among males (2, 3, 8, 9, 13, 16) and two hypotheses have been postulated to explain this phenomenon. On the one side, Kaestle (16) suggests that males and females respond differently, hence inducing a self-disclosure bias. The author states that males could be even proud to sell sex as it may represent that they are desirable and, thus, more likely to report it. The second hypothesis refers to not being exclusively heterosexual. Svedin & Priebe (3) postulate that the male preponderance reflected that most buyers were men and transactions were of homosexual nature. In a similar line, Kaestle (16) indicates that as very few women report buying sex, most of the men selling sex do it to other men. Our results do not allow proving the self-disclosure hypothesis, but the fact than those exchanging sex are significantly more likely to be non-exclusively heterosexual can explain, at least in part, the male preponderance in our study. Actually, the literature on transactional sex among non-exclusively heterosexual people shows higher prevalence rates. Mgbako et al. (26) found that, among men having sex with men (MSM), 24% of those aged 18-24

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years practiced transactional sex. Berg et al. (1), in their study in different European countries, found

that 12% of MSM had engaged in transactional sex in the previous year. In their review of women having sex with women, Tat et al. (27) reported rates ranging between 8% and 19%. Blum et al. (11) described a higher proportion of bisexual attraction and bisexual intercourse among youths having exchanged sex. Similarly, several studies (3, 8, 10) also concluded that those exchanging sex were more likely to be non-heterosexual. In line with our results, a Swedish study reported poorer mental health among those having exchanged sex (3). More specifically, several authors described that they were more likely to be depressed (8, 16), while Blum et al. (11) found that youths having exchanged sex were more likely to suffer from post-traumatic stress syndrome, anxiety or low self-esteem. Pedersen & Hegna (5) only found this association among boys. Nevertheless, based on our cross-sectional results, we cannot ascertain whether poor mental health is the cause or the consequence of transactional sex. Youths having exchanged sex more than once were more likely to live in a non-intact family, as described by other authors (2, 3, 5, 8). It is worth noting that, contrary to Swedish studies (2, 3), we found that their economic situation (both familial and personal) was significantly worse than the one reported by those never having exchanged sex. In this line, Stoner et al. (18) also found a relationship between economic deprivation and transactional sex among women, while a qualitative study among young people in South Africa(28) reported that poverty was an important driver to transactional sex. This finding might imply that transactional sex, at least in some cases, could be a way to meet basic needs, which would explain why it is exchanged mostly for money. In agreement with our results, other authors (3, 5, 11) also found that those having ever exchanged sex were younger at their sexual debut. Moreover, as in our results, other researchers (3, 5, 11, 13) have depicted greater number of sexual partners among sex exchangers. Our results confirm previous studies (3, 9, 13, 16, 17) indicating that a history of sexual abuse is associated with sex exchange. However, in our study, it only remained significant among those having exchanged more than once in the multivariate analysis. Our results also show that females and those having done it only once were more likely to have felt obligated to exchange sex for goods.

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Lavoie et al. (17) declared that in 30% of the cases the young person felt coerced to have sex, a much higher overall rate than in our study (12.2%). A qualitative study among homeless youth trading sex (12) also reported that for some of these youths the decision to trade sex was not always voluntary. This finding could also be explained because, when helped in some way (be it shelter, drugs or money), sex was the only thing they could offer in exchange. This would imply that they would not feel necessarily forced to have sex but rather that they felt somehow obliged to do it as a way of gratitude. This hypothesis would explain why being obligated was more frequent among one-timers. The gender difference could be due to cultural norms (sexual compliance) where girls may feel obliged to offer sex when they receive something. We found that youths in the Several group were more likely to have ever sent sexy pictures or videos of themselves than their controls. This result is in line with Van Ouytsel et al. (25) who performed an exploratory study on transactional sexting. Frendlund et al. (2) found that youths exchanging sex were using the Internet as a contact source. It could be that the higher level of sexting might be a way to find partners for transactional sex, and that sending pictures/videos would be a way to present oneself to the potential buyer. It could also indicate that sexting is a new way to exchange sex for goods. These hypotheses would explain why the result is only significant among those in the Several group. However, further studies are needed to prove this hypothesis. Our research shows that sex was mainly exchanged for money in both genders and in both frequency categories. This finding is in line with other studies (2, 3). Nonetheless, Blum et al. (11) found that half of the students in their sample had exchanged sex for drugs, which we found mainly among females. Also in agreement with our results, Svedin & Priebe (3) found that survival sex (in exchange for food or shelter) was rare. However, it is interesting to note that over one fourth of males exchanged sex for a good reputation. This finding could be linked to what has been mentioned before regarding boys being proud to be desirable and, hence, to acquire a better reputation. Moreover, the literature indicates that to feel appreciated (29) or feeling excluded or being different (30) were also motives for sex exchange.

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Both by gender and by frequency, in around half of the cases the person the youths exchanged sex with was an acquaintance, which seems to confirm that it differs from prostitution. In their survey, Lavoie et al. (17) reported that, in their sample, in 61% of the cases the other person was a friend, while in 27% it was an acquaintance. The fact that in their study only in 22% of the cases the other person was an adult (over 19 years) could explain this difference. The vast majority of females in our study were more likely to exchange with an older partner while one male in five exchanged with someone younger, which could reflect social norms. This result coincides with those from Fredlund et al. (2) who also found than most persons they had exchanged sex with were older. Overall, youths having exchanged sex were quite different depending on whether they had done it only once or more often. Those in the Once group seem to have lived this situation rather like some kind of accident, something that happened once but was not repeated and that could be assumed to have little consequences. To some point, it could be interpreted as a solution in a (unique) moment of distress. Nevertheless, it cannot be excluded that those in the Once group have not had yet the opportunity to repeat the experience, although at the age of the participants (26 years) it is most likely to be infrequent. However, those having exchanged sex several times were more likely to report markers of vulnerability such as living in a non-intact family, lower socioeconomic situation, poorer mental health, and a history of sexual abuse. Stoner et al. (18), in their study among women exchanging sex, reported that they were more vulnerable in terms of race, education, income or history of abuse. Other researchers (8) also found that these youths were more likely to be on drugs or to have run away from home, both indicators of vulnerability. The same has been described among poor communities in the United States (10) or among high-school substance users in Canada (7). As mentioned above, to what degree sex exchange among young people in Switzerland is a way to meet basic needs, especially since money is the main exchanged good, remains to be studied. The strengths of this study are that it is based on a nationally representative sample with a larger group of youths exchanging sex (n=168) than most previous studies (2, 3, 5, 11, 17) and that it details

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how and with whom the last encounter happened. However, some limitations need to be mentioned. First, our response rate (15.1%) was low, although it was in the range of what has been reported for this type of studies (31, 32). Second, our data did not allow determining at what age they had started exchanging sex, and this is an important point as, if underage, it could be considered a form of sexual exploitation (7). Third, for those having exchanged sex more than once, we do not know if it is a practice they are still currently doing. Fourth, although our sample was nationally representative, it is possible that those most vulnerable have not participated, hence our prevalence rate might be underestimated. Moreover, it may also be that some youths, when exchanging sex for help for an exam, for example, may not consider it as exchange, increasing the underestimation. Finally, a social desirability bias cannot be excluded. In spite of these limitations, our results indicate that, although rare, transactional sex is a reality for some young people in Switzerland. From a clinical point of view, health professionals dealing with young people should include this question in the sexual anamnesis of their patients. From a public health perspective, sexual education and prevention campaigns should include this phenomenon, especially when directed to underage youths. Moreover, the approach should not be limited to economic transactions but also to the other types of exchange.

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Table 1. Bivariate analysis of the characteristics of the sample and comparison between the three studied groups.

	Total	Never	Once	Several	P-
	(N=5175)	(N=5007)	(N=80)	(N=88)	value
Gender (Male)	51.0%	50.8%	58.1%	59.8%	NS
Age (mean ± SD)	26.35±.01	26.34±.01	26.30±.10	26.31±.09	NS
Swiss-born (no)	11.4%	11.2%	20.6%	14.7%	<.05
Parental situation (not together)	33.8%	33.2%	48.2%	52.7%	<.001
SES (below average)	15.5%	15.0%	29.9%	34.5%	<.001
Education (below tertiary)	49.6%	49.1%	59.6%	66.8%	<.01
Own financial situation satisfaction (mean ± SD)	6.37±.04	6.40±.04	5.56±.29	5.25±.29	<.001
Mental health (poor)	15.4%	14.9%	27.9%	35.4%	<0.01
Lifetime alcohol misuse (≥10 episodes)	52.9%	52.5%	62.3%	67.4%	<.01
Lifetime cannabis use (≥10 times)	27.4%	26.7%	38.9%	58.0%	<.001
Sexual orientation (non-heterosexual)	16.8%	15.6%	47.7%	50.9%	<.001
Age at first sexual experience (mean ± SD)	16.67±.05	16.74±.05	15.67±.31	14.98±.24	<.001
Ever had oral sex (yes)	96.3%	96.3%	96.8%	98.8%	NS
Ever had vaginal sex (yes)	88.1%	88.1%	87.6%	86.9%	NS
Ever had anal sex (yes)	52.7%	51.8%	72.0%	84.9%	<.001
Ever had a STI (yes)	18.6%	18.2%	24.0%	35.4%	<.001
Ever been sexually abused (yes)	9.2%	8.6%	19.6%	33.6%	<.001
Number of sexual partners/life (≥10)	22.3%	20.6%	63.7%	81.4%	<.001
Ever sent sexual images/videos	50.4%	49.1%	70.4%	82.9%	<.001
Ever surfed porn sites	79.5%	79.0%	91.9%	95.0%	<.001
Condom use at first intercourse	84.8%	84.9%	81.0%	82.8%	NS
Condom use at last intercourse	54.7%	54.6%	53.6%	58.2%	NS

NS: Non significant

Table 2. Backward stepwise multinomial logistic regression comparing each group reporting exchanging sex to the Never group (reference category).

	Once (N=80)	Р	Several (N=88)	Р
Gender (Male)	1.74 [1.04:2.92]	<.05	2.48 [1.30:4.71]	<.01
Parental situation (not together)	1.35 [0.79:2.30]	NS	1.74 [1.02:2.96]	<.05
SES (below average)	1.33 [0.97:1.83]	NS	1.49 [1.12:1.97]	<.01
Satisfaction with own financial situation	0.95 [0.86:1.05]	NS	0.88 [0.79:0.97]	<.05
Mental health (poor)	2.09 [1.17:3.73]]	<.05	2.76 [1.57:4.87]	<.01
Sexual orientation (non-heterosexual)	2.56 [1.45:4.53]	<.01	1.91 [1.08:3.37]	<.05
Age at first sexual experience	0.92 [0.84:1.02]	NS	0.88 [0.80:0.96]	<.01
Ever been sexually abused (yes)	1.56 [0.81:3.0.4]	NS	3.86 [1.99:7.50]	<.001
Lifetime number of sexual partners (≥10)	4.07 [2.19:7.56]	<.001	7.17 [3.65:14.11]	<.001
Ever sent sexual images/videos	0.99 [0.52:1.88]	NS	2.37 [1.03:5.46]	<.05

NS: Non significant

Table 3. Descriptive results of the goods obtained in exchange for sex by gender and by frequency category.

		By gender			By frequency category			
	Total	Males	Females	P-value	Once	Several	P-value	
	Total	(N=99)	(N=69)		(N=80)	(N=88)		
Money	48.8%	54.4%	40.8%	NS	44.9%	52.4%	NS	
To have a good reputation	39.7%	27.1%	18.6%	NS	22.0%	25.1%	NS	
Gift	36.8%	22.9%	20.5%	NS	15.7%	27.5%	NS	
Drugs	16.7%	13.0%	22.1%	NS	10.8%	22.0%	NS	
Alcohol	20.4%	11.9%	12.5%	NS	4.7%	18.8%	.01	
To be accepted in a group	13.6%	5.9%	11.2%	NS	6.5%	9.5%	NS	
Clothes	11.5%	6.4%	7.6%	NS	0.9%	12.2%	.01	
Other*	10.4%	4.5%	8.6%	NS	8.2%	4.4%	NS	

NS: Non significant

*Included: friendship (N=1); help for test (N=2); to be left alone (N=1); shelter (N=3); I am not sure (N=1)

Table 4. Context of the last sex exchange for youths reporting exchanging sex, by gender and frequency category.

		By gender			By frequency category		
	Total	Males	Females	P-value	Once	Several	P-value
	(N=168)	(N=99)	(N=69)	1 value	(N=80)	(N=88)	1 Value
The person was:				NS			NS
A friend	19.4%	17.7%	21.8%		24.1%	15.1%	
An acquaintance	49.7%	48.6%	51.4%		48.4%	51.0%	
A stranger	29.7%	31.7%	26.8%		27.5%	31.7%	
Other	1.2%	2.0%	0%		0%	2.2%	
Compared to you, the person was:				<.05			NS
Younger	13.5%	20.6%	3.2%		17.2%	10.2%	
About the same age	19.2%	19.0%	19.5%		19.8%	18.6%	
Older	65.2%	58.3%	75.1%		60.4%	69.5%	
I don't know	2.1%	2.1%	2.2%		2.6%	1.7%	
Did you feel obligated to do it (yes)	12.2%	7.4%	19.2%	<.05	17.4%	7.6%	.051

NS: Non significant