

Ambiguity leads to uncertainty: ambiguous demands to blood donors

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Blood donors must respond to standard control questions and comply to certain demands before donating blood, to exclude possible recent contamination. This study investigates whether donors had adequate knowledge about 'the immunological window period', and whether the standard questionnaire in use was understandable and clear. It was found that nearly 40% of the donors had inadequate knowledge about 'the immunological window period' and that 10–40% of the donors would respond in various ways to different interpretations of the formula-

tions of the questionnaire, indicating that the questionnaire was ambiguous. It was concluded that these factors could increase the risk of donating on wrong conditions. Demands and control questions posed to donors must be void of ambiguous formulations and take proper account of actual human sexual behaviours and life styles. Finally, it is suggested that blood banks must offer practical solutions (such as a 'fake donation') for temporarily rejected donors in order to respect their private integrity.

Keywords: blood donors, ambiguity, standard questionnaire, immunological window period.

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Introduction

A disquieting reading of a standard questionnaire administered to blood donors in a Norwegian blood bank, inspired this investigation. Donors fill out the questionnaire before donating, and, if properly answered, it is meant to exclude donations from donors who do not fill the strict behavioural criteria demanded of blood donors. Yet, with regard to sexual behaviours, we felt that the demands and questions posed could be interpreted in more than one way, which consequently could result in donations being given when they should not – where sampling of contaminated blood might ensue – despite all the modern anti-contamination routines: sensitive laboratory testing of donated blood and strict honesty demanded of donors.

Control systems in any blood bank world-wide are designed to detect and exclude persons with transmittable diseases from donating (1). Contaminated blood can be best detected if antigen tests are used. However, if the

donor is in the immunological window period (the period of about 3–7 weeks after contamination), the ordinary antibody tests will not detect HIV antibodies at such an early stage (2). Yet, the methodology is constantly being refined, and the risk is small where the medical services hold high standards (3). Even then, controls can be improved (4), and during the window period, one is completely dependent on the donor's honesty and correct understanding of the demands for donating blood (5). Various questionnaires and interviews are in use in different countries, and it has been shown that different methods impact on the information received from the donors (6–8). Donor demands and their formulations may vary, but they are all directed at excluding persons with drug abuse and/or multiple sexual partners, and other 'risky behaviours'. In Norway, these demands imply that a donor will be temporarily excluded from donating (6 months) if he/she, since the last donation, has had sex with persons who already had, or statistically had a greater risk for HIV or hepatitis C contamination (male homosexuals, drug addicts, prostitutes, former prostitutes). Sex with such peoples' partners also will result in 6 months exclusion from donating. The same temporary exclusion from donating is required, if the donor, during the last 6 months, has 'changed sexual partner', has received a blood transfusion, or has had sex with persons who had received blood transfusions.

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It is vital that the blood donors receive and understand information about what are considered to be risky behaviours, particularly sexual behaviours, but it is equally important that they are willing and able to report such behaviours. This willingness and ability rests heavily on how the blood bank manages to get information about such delicate matters, and manages to deal with the donors' need for confidentiality and private integrity (8, 9).

Therefore, the purpose of this study was to primarily investigate whether donors had adequate knowledge about 'the immunological window period' and whether a standard questionnaire for blood donors could be 'contaminated' by ambiguous demands. Secondly, to identify donors who could be prone to interpret the demands and questions in ways unforeseen by the blood bank.

Method

Sample

In this postal enquete survey, a questionnaire was mailed to a randomized sample of 10% of the regular blood donors at a major hospital in Norway, creating an original sample of 410 donors. Response rate was 74.3%. Six donors could not be reached by mail, and nine questionnaires lacking vital information were ignored. The final sample therefore consisted of 283 respondents, which represented 69% of the original sample. The sample was representative of Norwegian donors with regard to gender, age, married status, education, and number of donations, and therefore the drop-outs and ignored questionnaires do not seem to have represented any particular subgroup. The sample consisted of 55.6% men and 44% women; 21.6% were between 18 and 30 years, 57.4% were between 31 and 50 years, and 20.6% were 51 years or older. 78.8% were married or cohabiting and 21.1% were single. While 46.7% had education from universities or colleges, 42.6% had other kinds of education, and 7.6% had only completed primary school. The mean number of donations was 22. Forty-eight per cent had donated 0–20 times, 22% had donated more than 40 times and 4% had donated more than 80 times.

Questionnaire

Data presented here, were part of a larger descriptive survey collected by a 48-item questionnaire concerning various aspects about how the donors experienced their role as donors, their knowledge about blood donation and their relation to the blood bank. In this paper, only issues pertaining to the donors' knowledge about the immunological window period, and interpretations of the control questions and demands posed by the blood bank are presented. As the questionnaire was not constructed as an instrument, questions about its external reliability and

validity do not pertain. The questionnaire consisted of very simple, directly posed questions, and is therefore considered to have high internal validity and reliability. How the term 'change of sexual partner' could be understood by the donors, was studied by presenting examples of different life situations where a hypothetical donor might find himself/herself in, and the donors were asked to indicate how they felt this hypothetical donor should respond. The questions about these themes were: (a) 'Imagine that a married/cohabiting donor has had sex once with another partner since the last donation. Do you think that this donor should answer positively when asked about "having changed partner"'? (b) 'Imagine that this donor had used condoms. Should then the donor answer "yes" to the question about having "changed sexual partner"'? (c) 'Imagine that a donor has several steady partners. Do you think this donor should answer "yes" to the question about having "changed sexual partner"'? (d) 'Imagine that a donor has two steady partners. Do you think this donor should answer "yes" to the question about having "changed sexual partner"'? In addition, they were also asked whether they felt that suspected or acknowledged 'infidelity' in the donor's steady partner(s) ought to be reported to the blood bank before donating; and whether the term 'immunological window period' was a familiar term.

Data analysis

Data analyses (descriptives, the Fischer exact probability test) were carried out by Statistical Package of Social Sciences (SPSS-PC+) (10).

Ethical issues

The investigation was approved by the Research Ethics Committee of Health Region 3, Norway, the Norwegian Data Inspectorate and the blood bank authorities. All informants gave their written consent to participate and all data were anonymous.

Results

The term 'immunological window period' was not a familiar term for 36.7% of the donors. Questions about suspected or acknowledged 'infidelity' in the spouse/partner was not routinely asked at this blood bank. A 52.3% of the donors said they would not report such partner behaviour on their own accord, or were uncertain whether it ought to be reported before donating.

To the question of whether a married/cohabiting donor should report a 'change of sexual partner' after a single case of 'infidelity', 10.2% replied negatively or were uncertain about what to answer. If, in the same situation, condoms had been used, this number rose to 20.2%. If a

donor had several steady partners, 24.6% would answer 'no' or were uncertain whether this situation should be regarded as a case of 'changed sexual partner'. If a donor had only two steady partners, 40.7% would answer 'no' or were uncertain whether this situation should be regarded as a case of 'changed sexual partner'.

These 'different', or 'divergent' ways of interpreting the term 'changed sexual partner' were not evenly distributed in this sample. The 'divergent' interpretations were most frequent among singles, 40 years or younger, with high education ($p < 0.05$ on all measures, calculated by the Fischer exact probability test). In this sample, this group represented 49.6% of the donors.

Discussion

Ignorance in nearly 40% of the donors about 'the immunological window period' may imply that a considerable number of donors do not fully understand the importance of the strict demands posed on donors, and the importance of the information requested before donating. It may be argued that this ignorance should cause no concern as long as the transfusion service asks appropriate questions to elicit evidence of behaviour that should exclude a donor (temporarily) from donating. However, there may be a close connection between proper knowledge, and willingness to answer these 'appropriate questions'. Many donors feel that the questions are impertinent and too detailed, and wonder why they have to be answered before every donation. Therefore, to motivate correct and patient answering, it is important that the donors should be adequately informed about the risks pertaining to 'the immunological window period'.

It was noteworthy that the studied blood bank demanded no information about suspected or acknowledged 'infidelity' in the donor's partner(s). Such an important risk factor ought to be checked. The term 'changed sexual partner' is the only term this blood bank used for checking the existence of several relatively 'simultaneous' sexual relationships in the donors' lives. This study shows that the term is ambiguous and may give rise to various interpretations. It implies that the blood bank may receive uncertain or inaccurate information about the donors' sexual behaviour. When 20–40% of the donors may misinterpret the blood bank's intention behind the term 'changed sexual partner', it follows that this important cause for temporary exclusion (in Norway, at least) may be ignored. Single, <41 years, highly educated donors, who represented almost 50% of the donors, had the highest potential for 'divergent interpretations'. This population tends to have more changes in their sexual partnerships than the general sexually active population (11, 12). It is noteworthy that this group which have more variations in their sex life, may be more prone to under-report such behaviours before donating.

Giving information about one's sexual behaviours is a delicate matter. Better understanding of the donors' attitudes may be crucial (13). For regular blood donors who must relate to these questions and demands at each donation, it becomes a matter of routine. For new donors, it is a confrontation with a set of questions and demands which are unusual in ordinary social encounters. And, for regular donors who have had some sort of 'special (sexual) experiences' since the last donation, the routine is broken. In both cases, we should try to understand the psychology of the donor.

It may be difficult for a donor to admit such excluding behaviours as: having had 'a new sexual partner', or having 'changed sexual partner' since the last donation, or during the last 6 months. The reason is very simple: When a married/cohabiting donor is excluded from donating on such grounds, and returns home with no signs of having donated, the spouse's/cohabitant's suspicion may be evoked. Serious problems may ensue. For most people, to loose one's stable partner/spouse is a very serious threat. The thrill of the extramarital affair competes with the importance of the intramarital love. Therefore, people will do almost anything to cover up their 'affairs'. It may be too easy, and absolutely possible to 'hide' in the ambiguity of some formulations in standard questionnaires, without directly lying. Particularly, if condoms had been used during the clandestine or new sex encounters (and it is part of all anti-AIDS information that condoms protects sufficiently, which is only partly true), why then should the donor be subject to admit his or her 'extraordinary' sex? (By 'extraordinary' we simply mean: 'sex which was not part of the donor's ordinary, married/cohabiting life'.) and even when condoms had *not* been used, the donor may (for various reasons) consider the new sex-partner, as safe from any contamination. Inadequate information about the immunological window period may make this withholding of exact information even easier. The point is: if the donor regards the risk for himself/herself (the risk of losing the loved and steady partner), as greater than the risk for the blood product receiver, then there seems to be a risk for donating contaminated blood. The risk is small, but possible.

Words and expressions are open to interpretations. Expressions such as 'changed partner' or 'new partner' are ambiguous. Many persons would regard a single occasion of 'extramarital' sex during a stable and long-lasting relationship, as no instance of 'change of partner': 'It was just "a flip", not likely to happen again. My *partner* is not changed'. The term 'partner' usually refers to a stable relationship or 'partnership'.

Another situation where these formulations may be interpreted differently from the blood bank's intentions, is when someone has had the same stable lover for years in addition to the spouse. This person would not necessarily call this situation 'a *change* of partner' or having 'a *new*

partner'. Similarly, a person who encounters someone they have had a relationship with years ago, and then has occasional sex, would not necessarily call this 'having a new partner', or 'change of partner'.

In all these cases, one cannot necessarily claim that people intentionally 'lie' or 'withhold information' in the strict sense of these terms. They respond to an ambiguous set of demands or questions, and the responsibility for this ambiguity lies with those who formulate them.

Statistical knowledge about the nature of human sexuality and sexual behaviour must be taken into account seriously when blood can be contaminated through sexual behaviour. 'Infidelity' is common, and multiple partners during a 3-month period is also common, and despite how common such behaviours are, they are not generally, or everywhere, accepted as 'moral'. A disclosure may be so detrimental to a donor's private life, that it simply cannot be afforded from the donor's point of view. Therefore, we claim that some donors, at some time during their career as donors, may need help from the blood bank to conceal certain sexual behaviours.

The donors represent an indispensable resource! They are altruistically motivated, and give not only their blood, but also considerable time when donating (14). Therefore, they should be treated with great concern, first, by being posed simple, clear and unambiguous questions; and secondly, by being offered ethically acceptable care, such as 'an easy way out' in situations when they should not donate.

Conclusions

Blood donors should be properly informed about 'the immunological window period' and the importance of the strict demands posed on donors. Full attention should be paid to the fact that language is laden with different meanings and triggers different interpretations. When chances of contamination in donated blood rest on verbally formulated control questions and demands, the formulation of these must be scrutinized in order to extract information from the responders which is adequate and accurate. Demands and control questions *must* be free from ambiguity.

It should be made perfectly clear that *any* sex outside a mutually exclusive relationship results in (or ought to result in) a temporary exclusion from donating blood. This implies that acknowledged or suspected 'infidelity' in the partner should also be reported. If the donor's or the partner's sexual behaviour has been 'risky', the donor should be temporarily refused. Yet, to be excluded from donating may result in a disclosure of 'extramarital' sex, and may have serious consequences in the donor's private

life. Giving 'honest' information should not result in calamities in the donor's private life. Therefore, it is suggested that the blood banks could offer some sort of 'fake donations' (made by the pinprick of a simple blood test) to temporarily excluded donors. In short, blood banks should implement all kinds of strategies necessary to secure both donations of uncontaminated blood and secure the donors' private integrity.

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