

Integration in groups of donors may modify attitudes towards blood donation

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Dear Sir,

The national needs for blood in Greece exceed 600,000 units annually (approximately 50 units per 1,000 inhabitants). The large number of transfusion-dependent thalassaemia patients, car accident victims and poor implementation of "patient blood management" are the main reasons why Greeks exceed the European average of 40 donations/1,000 inhabitants needed to cover national needs. Despite the efforts to recruit and sustain volunteer blood donors (VD), such donors account for only 45-50% of the total needs¹. They donate either individually (IVD) or in the context of organised groups (GVD). These groups consist of people sharing the same activities or working place and donate regularly on pre-set dates and collection sites. Non-remunerated replacement donors (RD), recruited from the family and social environment of patients, cover the rest of the needs¹.

The aim of our study was to record and study differences in donation attitudes among the three groups (IVD, GVD, RD) and, in particular, between IVD and GVD in order to identify factors that could enhance volunteer blood donation in Greece.

A total of 1,362 questionnaires were completed by candidate donors at the Blood Transfusion Units of two University Hospitals (Aretaieion, Attikon) Athens, Greece, between September 2011 and January 2012. The questionnaire was completed anonymously and consisted of multiple choice and rating questions, as previously described¹. The differences among and within these groups were assessed using the two-tailed Fisher's exact test ($p < 0.05$ was considered statistically significant). Overall, 1,351 questionnaires were finally evaluated since 0.8% (11/1,362) of the donors reported donating blood in order to receive some sort of compensation (paid leave from work or other) and were excluded.

Among the 1,351 donors evaluated, 415 (30.7%) were IVD, 93 (6.9%) were GVD and 843 (62.4%) were RD. The gender distribution was 74.7% (310/415), 69.9% (65/93), 69.5% (586/843) males and 25.3% (105/415), 30.1% (28/93), 30.5% (257/843) females in

the IVD, GVD and RD groups respectively. Donors were classified according to age into four groups (18-30 years: $n=480$; 31-40 years: $n=484$; 41-50 years: $n=303$, >51 years: $n=84$). The 18-30 age group consisted mainly of RD 61.0% (293/480). Donation in older age (>51 years) was more frequent in GVD than in either of the other groups (GVD: 25.8% [26/93], IVD: 6.8% [30/415], RD: 3.1% [28/843]).

Donors were classified according to the total number of donations. Almost one third of donors reported five to ten donations regardless of group (IVD: 28.7%, GVD: 31.2%, RD: 29.4%). However, 46.2% (43/93) of GVD reported more than ten donations compared to 34.9% (145/415) of IVD and 26.1% (270/843) of RD ($p=0.044$ and $p < 0.0001$, respectively).

Donors were also classified according to the motivation for their first donation. Giving blood for a friend or relative in need was the most common incentive not only for RD 64.3% (542/843), but also for IVD 42.4% (176/415) and GVD 35.5% (33/93). Only half of GVD 52.7% (49/93) initially donated in the context of organised donor groups. The impact of national campaigns and mass media appeals is small, irrespective of donor group (IVD: 2.6%, GVD: 3.2%, RD: 3.6%).

Regarding concealing the truth while completing the pre-donation screening questionnaire, the following reasons were evaluated; avoiding/ postponing donation, covering the needs for blood of a specific patient, feeling embarrassed by indiscrete questions. The majority of GVD (63.4%), 25.3% of IVD, and 17.3% of RD refused to answer the question ($p < 0.0001$), while 9.6% (40/415) of IVD, 21.5% (20/93) of GVDs and 17.4% (147/843) of RD admitted concealing the truth. For 37.8% (57/147) of RD the main reason was the urgent need to cover the requirement for blood of a patient, while for the GVD the main reason was fear of stigmatisation².

When assessing the reasons for omitting donation during the preceding year, more than half of RD (53.1%; 448/843) reported no need to donate compared to 24.8% (103/415) of IVD and 29.0% (27/93) of GVD ($p < 0.0001$ and $p < 0.0001$, respectively). Lack of time was a significant deterrent mainly in the IVD

group (41.0%; 170/415) but also in the GVD 24.7% (23/93) and the RD 24.3% (205/843) groups. Not having been reminded to donate within the context of national/regional campaigns or personal communication was more important to IVD than to GVD (5.8% [24/415] vs 0.0% [0/93], respectively; $p=0.0124$).

Very unlike the European donor population reported in the DOMAINE survey (55% men), there were more men than women in all donor groups in our study (69.5-74.7%)³. We suggest that we should reinforce the implementation of measures in order to integrate women after a temporary deferral or even ameliorate the perceived risk of donation for women⁴.

It has been reported that elderly donors are safe and highly committed to donate blood⁵. In our study the percentage of GVD aged >51 years was statistically higher than that observed for IVD and RD suggesting that participation in groups of volunteers can lead to retention of donors for longer. Furthermore, GVD provide more blood than not only RD but also IVD. This may be attributed to the fact that organised groups provide organisational structures capable of retaining donors and efficiently reminding them to donate regularly. However, GVD usually donate in a pre-established location in public, a fact that may make them conceal personal data that could result in deferral in order to avoid social rejection by other members of the group. Thus, staff should be educated in ensuring privacy while soliciting information from GVD, usually in public sessional venues outside the premises of blood bank.

In terms of age it should be highlighted that volunteer donors are underrepresented in the younger age group, underlining the need to improve donor education the most often used awareness programmes, e.g. in schools, as implemented by 80% of Blood Establishments in Europe³.

In conclusion, GVD in Greece constitute a precious pool of donors who contribute to more adequate blood supplies since they donate more often and remain active for longer. Adequate reminders and pre-booking appointments for donation for IVD (in order to overcome lack of time) should be incorporated in the national scheme so that IVD share the privileges of GVD. Recruitment and retention efforts should include better communication with current donors and raising awareness among eligible donors through campaigns exploiting the potential of social networks and communication applications.

The Authors declare no conflicts of interest.

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