



Original research article

Motivation of blood donors in the context of social competences

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Abstract

Introduction: The study explores social competences as an important component of blood donor motivation, understood as socially competent, goal-directed behaviour in specific situations.

Aim: To analyse donor motivation in relation to social competences and selected sociodemographic factors.

Methods: The sample comprised 517 donors from the Blood Centre of the University Hospital in Ostrava. Data were collected using a self-designed questionnaire and the Social Competence Inventory (ISK-K). Internal consistency was assessed using Cronbach's alpha, and correlation and comparative analyses were conducted.

Results: Acceptable reliability was confirmed for the Self-Control, Social Orientation, and Offensiveness scales, while Reflexivity was excluded. Donors achieved average scores in Social Orientation and below-average scores in Self-Control and Offensiveness compared to population norms. Statistically significant differences were found between the Size of Place of Residence and Social Orientation ($p < 0.01$) and Offensiveness ($p < 0.05$). No significant differences were identified in relation to gender, education, or number of donations.

Conclusion: Donor motivation is associated with selected social competences and varies by place of residence, indicating the need for region-specific recruitment and retention strategies.

Keywords: Blood donors; Extrinsic motives; Intrinsic motives; Motivations; Social competences

Introduction

Blood is an irreplaceable fluid that plays a key role in saving human lives. As in many other countries, blood donation is voluntary and unpaid in the Czech Republic, and so depends on the willingness and altruism of individuals.

Donation is defined by European legislation, which also regulates the production of plasma for industrial processing. One of the main reasons for complying with this legislation is to eliminate the concealment of important information about donors' health status. The reason for this is the constantly high demand for plasma for industrial processing and the production of blood derivatives (Official Journal of the European Union, 2024).

The healthcare system continues to face a shortage of blood, which poses a serious challenge to maintaining an adequate supply of this vital fluid. To address this challenge, it is essential to understand the motives that lead people to donate blood and to identify factors that can attract new donors and retain existing ones. In our research study, we focused on the motivation to donate blood from the perspective of donors'

social competences in the context of selected sociodemographic factors.

Social competence has been a frequently studied construct in several humanities disciplines for many years. Although opinions on its definition differ or overlap, they nevertheless contribute to a better understanding of the human dimension in various situational contexts. Here, we understand social competence as a specific subset of all the competences that a person may possess, and we seek to answer the question of what may or may not lead to competent behaviour.

The present research study focuses specifically on the social competences of blood donors, looking in particular at the internal motivation that leads these people to donate blood. Motivational theories distinguish between prosocial behaviour, referred to as altruistic, in which people want to help others and view donation as an opportunity to provide a life-saving resource (Ferguson et al., 2020), and behaviour that is more conditioned by selfish motives. In the first case, donation may be influenced by a desire to help others selflessly, while in the second case, it may be motivated by the desire to gain some advantage or benefit, such as financial compensation (Bierhoff et al., 1991; Chand et al., 2023).

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Theoretical background

Kanning (2002) defines social competence as the knowledge, abilities, and skills of an individual that form the basis for the quality of their social behaviour – that is, socially competent behaviour, which contributes to achieving one's own goals in a specific situation while also ensuring one's behaviour is socially accepted.

In the present study, motivation is not measured directly but is interpreted through the profile of social competences. We assume here that a higher score on the social orientation scale predisposes an individual to prosocial behaviour, including blood donation that increases social orientation.

Currently, there is no comprehensive typology of blood donors in the world, with the possible exception of that proposed by Bednall and Bove (2011). However, this is based on a secondary analysis of data and the information is limited. Most authors agree that one of the main motives for blood donation is altruism, which Zášková and Mlčák (2009) and many others define as voluntary and selfless behaviour.

Tošner and Sožanská (2006) have conducted research on volunteer motivation that offers a relevant parallel to blood donation. They identify three basic types of volunteer motivation that correspond to a broad spectrum, from community-oriented altruism to selfish exchange: conventional/normative (41% among Czech volunteers, predominantly individuals over 60 and religious believers), reciprocal (occurs in 37% of volunteers, especially young people under 30), and underdeveloped (occurs in 23% of volunteers and often includes people with higher education and people aged between 46 and 60). Although this typology was developed in the context of volunteering and not specifically for blood donation, it illustrates that prosocial behaviour arises from a diverse range of motivational foundations, a finding that may be relevant to understanding why individuals choose to donate blood.

A study of motivation among young donors in the United States found a decline in blood donation rates and highlighted the demographic ageing of the regular donor population. The study confirmed that prosocial behaviour, including altruism and collectivism, was the dominant motive. In terms of socio-demographic factors, which we also monitor in our research, no significant differences were observed in gender, race, or ethnicity (France et al., 2022).

A US study of 952 participants (aged 18–39) examined donors' willingness to use mobile apps to encourage blood donation. The results showed that 73% of participants viewed these apps favourably.

In a study by Alanzi et al. (2023), younger participants and those with a bachelor's degree or higher were found to be more likely to use social media applications for purposes related to the blood donation process compared to participants with minimal education and older participants ($p < 0.05$). A study by Niklas et al. (2023) confirmed that digital users show a significantly shorter donation interval (193 days compared to 316 days). In-app incentives included an identification card, fast lab test results, or, for example, badge collection.

In our research, we focus on motivation – which plays a key role in shaping human behaviour. According to Nakonečný (2014, p. 15), human behaviour is initiated by internal motives or external incentives; however, incentives are only effective if they activate an internal motive (e.g., money for extra work is motivating only if the individual has a reason to earn it). This internal psychological cause of behaviour constitutes a motive, defined as an experience or pattern of behaviour that brings some satisfaction. Motivation can be classified according to its

source as either internal or external. Internal (intrinsic) motivation arises from an individual's own goals and needs.

Materials and methods

Sample

The study employed a stratified random sampling method. The research sample consisted of donors from the Blood Centre at Ostrava University Hospital. The criteria for inclusion in the study were: age 18 years and older, participate in blood, plasma or blood component donation, and consent to completing the questionnaire. During the research period (1 June to 31 October, 2022), 563 donors were approached. 46 questionnaires were excluded due to incomplete or incorrect completion. The final sample consisted of 517 participants, of whom 346 were men (66.9%) and 171 were women (33.1%). The youngest participants (of both sexes) were 18 years of age. The maximum age among women was 57 years and among men 63 years, with an average age of 40 years for women and 39 years for men. The questionnaire survey was conducted with the approval of the Ethics Committee of the University Hospital Ostrava, reference number 199/2022. Full anonymity of respondents was ensured during the distribution, collection, and analysis of the questionnaires.

Methods

A quantitative approach based on theory and the operationalisation of variables was used. The collected data were analysed using IBM SPSS Statistics. The methods of descriptive statistics, as well as comparison of means by t -test, were used.

A self-constructed questionnaire was used in combination with the standardised psychological questionnaire ISK-K, short version. The questionnaire included questions mapping the experience of blood donation, motivation for blood donation, and sociodemographic questions.

A standardised method that would cover all possible social competences does not currently exist due to the high heterogeneity of different theoretical approaches (Kanning, 2017), so the Social Competence Inventory was used. It was developed as the first psychometrically validated method for measuring social competences. The full version contains 108 items. Its shortened version was used in the study ISK-K, with 33 items, which is the result of a series of analyses of four factors (Social Orientation, Offensiveness, Self-Control, and Reflexivity). Hoskovcová and Vašek (2017) were responsible for the Czech adaptation of the original questionnaire 'Inventar Sozialer Kompetenzen'.

Descriptions of the scales

Social orientation

The Social Orientation scale is defined as the extent to which the individual behaves with openness and a positive attitude toward others. Low values on this scale represent a focus on one's own benefit, low interest in others, ignoring the opinions of others, and underestimating others. High values indicate engagement in relationships with others, attentiveness, and willingness to help, tolerance of different opinions, and willingness to compromise (Hoskovcová and Vašek, 2017). From the perspective of the motivational focus of our research study, we can associate this competency with the affiliative type of motivation, which involves the need for belonging. Individuals with high scores tend towards team harmony and collective success rather than individual rivalry.

Offensiveness

This scale is defined as the extent to which individuals actively pursue their own interests in interactions with others. Low values are characterised by social isolation, avoidance of conflict, submissiveness, and postponement of decisions. High values indicate actively approaching other people, not avoiding conflict, making decisions, and actively pursuing one's own interests (Hoskovcová and Vašek, 2017). This competency represents a motivational tendency toward power and influence. It can serve as an energising force in various aspects of life, such as achieving professional goals. While individuals may have a strong intrinsic motivation to lead, a lack of social skills may hinder their ability to clearly articulate their vision.

Self-control

This scale is defined by the ability to behave flexibly and rationally and to perceive oneself as an active agent. Low values on this scale indicate a tendency to perceive life as being controlled by external factors; behaviour may be influenced by mood swings, and responsibility for one's own life is shifted onto others. High values reflect rational behaviour, where emotions do not greatly influence behaviour, and a perceived responsibility for one's own life is evident (Hoskovcová and Vašek, 2017). We see a connection between this competence and voluntary motivation (self-regulation). Even a highly motivated person can fail if they are easily discouraged by criticism or stress. Self-regulation helps people maintain their motivation to achieve a goal even under pressure.

Reflexivity

This scale is defined by the extent to which a person actively interacts with others. Low values are characterised by a lack of interest in one's own behaviour and by indifference to social interactions and the presence of others. High values are characterised by reflection on and, where appropriate, deliberate control of one's own behaviour towards others, as well as interest in other people (Hoskovcová and Vašek, 2017). We see a connection between this competency and motivation to grow and learn. A person with high reflexivity can regulate their behaviour based on feedback and maintain motivation for continuous self-improvement.

Results

The main objective of the research study was to *analyse the motivation of donors to donate blood in the context of social skills and selected sociodemographic factors*.

The sub-objectives of the research were:

1. To investigate the association between social competences and the number of blood donations.
2. To investigate the differences between the social competences of single and multiple blood donors.
3. To determine the differences between the social competences of male and female blood donors.
4. To discover the differences between the social competences of blood donors according to their educational attainment.
5. To find out the differences between the social competences of blood donors according to the size of the place of residence.

Results of the ISK-K questionnaire

First, it was necessary to verify whether the data were internally consistent. Cronbach's alpha was used to verify the reliability of the data. Its coefficient ranges from 0 to 1. According to some authors, e.g., Rabušic et al. (2019), it should have a value of at least 0.7. Other authors, such as Ursachi et al. (2015), consider 0.6–0.7 to be an acceptable level of reliability, and 0.8–0.95 to be a very good level of reliability.

In view of the above, the results for the following scales can be considered acceptable: Self-Control (0.738), Social Orientation (0.634), and Offensiveness (0.611). The Cronbach's alpha value was not met for the Reflexivity scale (0.485). For this reason, we did not work with this variable further in our research.

The one-dimensional data analysis aimed to determine the social competences of respondents at the Blood Centre at Ostrava University Hospital, based on the average scores achieved in the ISK-K questionnaire (Table 1).

Table 1. Descriptive statistics of the ISK-K questionnaire results

	N	RS Min	RS Max	M	SD	P
Social orientation	517	16	39	29.70	3.241	52
Offensiveness	517	11	32	20.91	3.196	33
Self-control	517	11	32	23.45	3.516	38

Note: N – number of respondents, RS – raw score, M – mean, SD – standard deviation, P – percentile

Considering the above-mentioned level of altruism as a tendency to help others (Social Orientation), the respondents were close to the population average (percentile 52). On the Self-Control and Offensiveness scales, respondents tended to score below the population average (percentiles 38 and 33).

As part of the comparative analysis, we were interested in whether there were differences between the ISK-K questionnaire scales and selected sociodemographic characteristics among respondents at the Blood Centre of Ostrava University Hospital. Using the *t*-test, the only statistically significant

differences were found for the Social Orientation and Offensiveness scales in relation to the Size of Place of Residence (Table 2).

Statistically non-significant differences can be seen between the ISK-K questionnaire scales and the following selected variables: Number of Blood Donations, Gender, and Education (Tables 3, 4, 5). Although the differences are statistically significant, they are small in practical terms (the difference in averages is ~0.5 points).

Table 2. T-test for ISK-K questionnaire scales by Size of Place of Residence

	Size of Place of Residence	N	M	SD	Sig. t-test
Social orientation	Under 100,000 inhabitants	301	29.55	3.202	0.041**
	100,000 inhabitants or more	209	30.11	2.815	
Offensiveness	Under 100,000 inhabitants	299	20.68	2.943	0.061*
	100,000 inhabitants or more	208	21.18	2.974	
Self-control	Under 100,000 inhabitants	301	23.45	3.296	0.281
	100,000 inhabitants or more	209	23.78	3.364	

Note: N – number of respondents, M – mean, SD – standard deviation, * correlation is significant at p 0.05, ** correlation is significant at p 0.01

Table 3. T-test results between the ISK-K questionnaire scales and the Number of Blood Donations

	Number of Blood Donations – first vs multiple	N	M	SD	Sig. t-test
Social orientation	First blood donation	44	29.14	3.016	0.144
	More than one blood donation	466	29.84	3.059	
Offensiveness	First blood donation	44	20.48	2.681	0.337
	More than one blood donation	463	20.93	2.988	
Self-control	First blood donation	43	23.30	2.883	0.562
	More than one blood donation	467	23.61	3.364	

Note: N – number of respondents, M – mean, SD – standard deviation

Table 4. T-test results between the ISK-K questionnaire scales and Gender

	Gender	N	M	SD	Sig. t-test
Social orientation	Men	341	29.81	3.098	0.761
	Women	169	29.72	2.986	
Offensiveness	Men	342	20.89	2.956	0.963
	Women	165	20.88	2.987	
Self-control	Men	342	23.69	3.258	0.306
	Women	168	23.37	3.456	

Note: N – number of respondents, M – mean, SD – standard deviation

Table 5. T-test results between the ISK-K scales and Education

	Education	N	M	SD	Sig. t-test
Social orientation	Secondary education	295	29.83	3.086	0.889
	Higher education	208	29.79	3.005	
Offensiveness	Secondary education	292	20.82	2.975	0.513
	Higher education	208	21.00	2.981	
Self-control	Secondary education	294	23.38	3.392	0.102
	Higher education	209	23.88	3.248	

Note: N – number of respondents, M – mean, SD – standard deviation

Discussion

According to Hoskovcová and Vašek (2017), people with a higher level of Social Orientation are more tolerant of various norms and value attitudes. However, in our research, we found only average values among respondents on the monitored scale. From a developmental psychology perspective, a higher degree of internalisation of social norms and values also im-

plies a certain level of cognitive and moral development. The results did not show a significant relationship between Social Orientation and the number of donations. This could indicate that reciprocal motivation is more important for blood donors, because as stated by Tošner and Sožanská (2006), it involves benefiting not only others but also themselves. It seems that blood donors are primarily interested in acting effectively in social interactions, either for their own benefit or for the benefit of others. However, this does not mean that these two views

are mutually exclusive; in practice, people often adopt a compromise between them, which is consistent with the views of authors such as Greif (1987), Petermann (1995), and Riemann and Allgöwer (1993). Social orientation influences donors' responses and acts as a kind of "filter". Highly socially oriented individuals are driven by empathy and a sense of civic duty, which can be activated by perceived specific needs or a broader understanding of the system – such as the need for blood donation to support hospitals. Those with high social orientation are motivated to help, perceiving donation as a natural form of solidarity. First-time donors often rely on external incentives, while regular donors are driven more by internalised altruistic norms of helping others, as shown in the study by France et al. (2022).

Chand et al. (2023) emphasise the importance of stress management and support staff for the retention of first-time donors. Although the differences in self-control found in our study between repeat and first-time donors were small, they may influence the transition to routine donation. A first-time donor with low Offensiveness may feel insecure in the unfamiliar and highly formalised hospital environment. Although motivation may be robust, social shyness can inhibit action. Consequently, transfusion stations should be designed to appear as welcoming as possible to mitigate low Offensiveness among individuals who are otherwise highly motivated and empathetic.

The statistically significant differences found between blood donors living in areas with a population of less than 100,000 and those living in areas with 100,000 or more may indicate a relationship between the Social Orientation and Offensiveness scales and respondents' behaviour in large urban areas. In particular, it may reflect a more open and positive approach towards others, as well as a higher degree of activity in pursuing one's own interests in social interactions. Larger places of residence generally contribute to a higher degree of tolerance towards various norms and values, and apparently offer greater opportunities to promote not only their interests as blood donors but also serve the interests of the other party that needs their help. In line with the findings of Romero-Domínguez et al. (2021), our results show higher social orientation among respondents from cities with more than 100,000 inhabitants, suggesting that these donors are better adapted to an open approach towards others in the anonymous environment of a large city. As Hoskovcová and Vašek (2017) point out, blood donors can thus fulfil themselves in an active and non-conflictual way. Research in this area suggests that it makes sense to investigate the relationship between donation and the size of donors' places of residence in the future.

Limitations

Limitations of this research include the size and representativeness of the sample of respondents, which may not be large enough to represent the entire population of blood donors. The sample may also have been skewed by the uneven representation of men and women. Another limitation could be the lower reliability of some scales of the ISK-K questionnaire used, i.e., its short version, containing a lower number of items. But according to Rabušic et al. (2019), the Cronbach's alpha depends on the number of items – where more items increase its value. Another limitation is the risk of response bias, such as social desirability, whereby participants provide socially acceptable responses. Due to the structure of the self-constructed questionnaire, there were also limitations related to the data analysis methods used. Authors such as Kermani et al. (2024) are developing relevant instruments, but current-

ly there are practically no standardised questionnaires in the social sciences that directly assess the motivation to donate blood – which also limited our research. However, the main limitation is differences in language and cultural or religious values, which may limit the transferability of these instruments to the European, or more specifically Czech, context.

Recommendations for future research

We would suggest expanding the sample to further explore this issue. Subsequent research could include a broader and more diverse sample of respondents from different geographical areas and cultural backgrounds. We also suggest using the ISK questionnaire, i.e., the longer version, which contains a greater number of items than the ISK-K version. For future consideration, the use of a mixed research design is recommended, i.e., a combination of questionnaire and in-depth interviews, which would provide a deeper insight into the motivations of blood donors. There is still a lack of research studies in the Czech Republic that specifically address the topic of blood donation from the perspective of motivational factors in relation to various sociodemographic factors. The study by Romero-Domínguez et al. (2021), which focused on comparing the age, gender, and education of blood donors and how their profile influences their motivation to donate, could serve as inspiration for further research in this area. The results showed that women tend to become blood donors due to their prosocial tendencies, while men tend to do so for personal gain. In addition, it highlighted that blood donation centres should focus on supporting motivation among donors over the age of 35. These donors experience a decline in self-esteem and a loss of motivation to continue donating blood. Support should come from transfusion stations, which should remind donors of the importance of donation. From the perspective of targeting donor groups, we should not forget the education factor. Research in Spain looked at both the recruitment of new donors and the retention of regular blood donors. The participants were university students, and the authors examined their main motivations. The key finding was that the main motivation for donating blood was solidarity, which provided a 'good feeling after helping others' (Padilla-Garrido et al., 2021). For further research in this area, the work of Fogarty et al. (2023) may also be of value, as the authors highlighted the important role of donor communities in sustaining long-term donation behaviour.

Similar to the research study by Piliavin and Callero (1991), our results did not clearly confirm the relationship between altruistic traits and the motivation to donate blood. However, it should be noted that our study was based on a different theoretical framework, namely Kanning's (2017) concept of social competences. Lejdarová et al. (2019) also noted in their analysis that it will be increasingly difficult to find donors motivated "only" by altruism.

Conclusion

The present study examined the motivation of blood donors at the Blood Centre of Ostrava University Hospital through the lens of social competences, measured by the ISK-K questionnaire. The results showed that blood donors achieved average scores on the Social Orientation scale, corresponding to the population norm at the 52nd percentile, while scoring below average on the Self-Control and Offensiveness scales (percentiles 38 and 33, respectively). The only statistically significant differences were found in relation to the size of the donors'

place of residence: donors from cities with 100,000 or more inhabitants scored higher on both Social Orientation and Offensiveness, compared to donors from smaller municipalities. No statistically significant differences were found with respect to gender, education, or the number of previous donations. These findings suggest that the motivation to donate blood cannot be attributed solely to altruistic traits, and that reciprocal motivational patterns – where donors also derive personal benefit – may play an equally important role in sustaining donation behaviour.

The study findings have several practical implications for blood transfusion centres and healthcare organisations. Given that donors from larger urban environments demonstrated higher levels of social orientation and offensiveness, targeted recruitment campaigns in these areas may benefit from emphasising collective responsibility and civic solidarity. At the same time, transfusion stations should be designed as welcoming and low-stress environments to reduce potential barriers for individuals with lower offensiveness and who may otherwise be deterred by the formalised hospital setting despite being intrinsically motivated to donate.

Adherence to ethical standards

This article contains only anonymous data. All procedures involving human participants were conducted in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments, or comparable ethical standards.

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Conflict of interest

The authors have no conflict of interest to declare.

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