

INFLUENCING FACTORS OF BLOOD DONATION INTENT: PROPOSING AN EXPLORATORY MODEL

FATORES INFLUENCIADORES DA INTENÇÃO DE DOAR SANGUE: PROPOSIÇÃO DE UM MODELO EXPLORATÓRIO

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ABSTRACT

Purpose – Identify the main factors that significantly influence individuals living in the metropolitan region of Belo Horizonte / MG to donate blood.

Design/methodology/approach – Methodologically, it was decided to develop a quantitative research, developed in the light of structural equation modeling, allowing the development of an exploratory behavioral model about the intention to donate blood.

Findings – As main results, it was identified that the ‘attitude towards screening’ contributes significantly to the ‘perception of safety’ that the individual has about the process of blood donation.

Research limitations/implications – Difficulty of access to the main hemotherapy center in the state, Minas Gerais Blood Bank Foundation (HEMOMINAS), a fact that prevented access to up-to-date data on the region’s blood donation scenario.

Practical implications – The indicators that are directly related to the practice of blood donation obtained statistically significant mean differences between the group of individuals who already donated blood and those who never donated, the former being more sensitive to calls for donation.

Originality/value – There is a deepening of the knowledge of the variables that influence the individual who voluntarily performs an act such as blood donation. In this sense, this study provides inputs for the development of more assertive, efficient and effective blood donation public policies, contributing to the recovery of blood banks and raising the rate of donors in the country.

Keyword – Blood Donation. Social marketing. Volunteerism. Intention. Behavior.



RESUMO

Finalidade - Identificar os principais fatores que influenciam significativamente indivíduos residentes na Região Metropolitana de Belo Horizonte/MG a doarem sangue

Desenho / metodologia / abordagem - Metodologicamente optou-se por desenvolver uma pesquisa quantitativa, desenvolvida à luz da modelagem de equações estruturais, permitindo que fosse desenvolvido um modelo exploratório comportamental acerca da intenção de doar sangue.

Constatações - Como principais resultados identificou-se que a 'atitude em relação à triagem' contribui significativamente para a 'percepção de segurança' que o indivíduo possui acerca do processo de doação de sangue.

Limitações / implicações da pesquisa - Dificuldade de acesso ao principal centro de hemoterapia do estado, a Fundação Centro de Hematologia e Hemoterapia do Estado de Minas Gerais (HEMOMINAS), fato que impediu o acesso a dados atualizados sobre o cenário de doação sanguínea da região.

Implicações práticas - Os indicadores que estão diretamente relacionados à prática da doação sanguínea obtiveram diferenças de médias estatisticamente significantes entre o grupo de indivíduos que já doaram sangue e que aqueles que nunca doaram, sendo que os primeiros são mais sensíveis aos apelos em prol da doação.

Originalidade / valor - Aprofundamento no conhecimento das variáveis que influenciam o indivíduo que, voluntariamente, executa um ato como a doação de sangue. Nesse sentido, este estudo fornece insumos para o desenvolvimento de políticas públicas de doação de sangue mais assertivas, eficazes e efetivas, contribuindo para a recuperação dos bancos de sangue e elevação da taxa de doadores do país.

Palavras-chave: Doação de Sangue. Marketing Social. Voluntarismo. Intenção. Comportamento.

1 INTRODUCTION

From the 1990s onwards, there has been considerable growth in the demand for blood donations worldwide, including in Brazil. According to data from the Ministry of Health (2017), approximately 1.82% of the Brazilian population is currently a blood donor. However, the ideal rate, according to World Health Organization (WHO) guidelines, should be between 3% and 5% (WHO, 2016).

In the Brazilian context, the history of blood as transfusion therapy until the early 1980s was marked by the remuneration of the donation, which gradually built the collective imagination, involving feelings of favor, of exchange, not of voluntarism or solidarity as a motivating factor (Brazil, 2015b).

As a result, the Ministry of Health (2015b) points out that, in the daily universe of people, there was the emergence and strengthening of a set of beliefs, ideas, fears, myths, stereotypes and prejudices about the act of donating blood, prevailing, a priori, individual and commercial interests. Still in the 1970s, several strategies began to be thought in order to enable the transformation of social representations, as well as the popular imagination. These strategies sought to demystify, in order to change the paradigms and values hitherto constructed, seeking a cultural reconfiguration of the act of donating blood voluntarily, i.e., without any kind of favoritism or material incentive (Brazil, 2015b).

In this respect, it will be considered that through "changing attitudes and behaviors, people could become donors aware of their role, participating and co-responsible for the whole process of 'saving lives'" (Brazil, 2015b, p. 8).

In the early 1980s, there was a worldwide concern about the safety of blood-related procedures due to the emergence and popularization of the Acquired Immunodeficiency Syndrome (AIDS), as well as a sudden process of proliferation of diseases transmitted via blood transfusion. This fact has intensified not only the debate, but the interventions of health authorities seeking to finalize the remuneration of the donation process in various countries of the world (WHO, 2013).

As a result of this conjuncture, in the 1980s, the beginning of the process of formulating public policies for the management of hemotherapy services was identified, whose main focus was



on voluntary and unpaid donation, since the creation of the National Program Blood and Blood Products, popularly known as Pro-Blood.

In 1988, there was a milestone in the change of blood policy, with the prohibition of the hitherto accepted donation remuneration. From then on, according to the propositions of Brazilian law, the act of blood donation became entirely voluntary and anonymous (Brazil, 2011) and, as provided for in article 199, paragraph 4 of the Federal Constitution of 1988, a ban on trade in blood and blood products is established.

In line with this context, WHO (2016) points out that the scenario marked by the growing demand for blood, which in most countries has exceeded supply, is justified, among other things, due to the increased life expectancy of people and, therefore, the multiplication of the most common chronic disease cases in elderly individuals, whose treatment requires the use of blood.

There is also a growing demand for blood due to other issues, such as transplants, bleeding during childbirth, surgery, traffic accidents and blood disorders, the treatment of which requires a constant need for blood transfusions and blood components (Menezes & Sousa, 2014; Pereira et al., 2016).

Based on the previously exposed context, it is believed that transdisciplinarity in research fields may contribute to the understanding of aspects related to the decision making of an individual whether or not to be a blood donor. In this sense, the present study proposes to involve in this system knowledge from the Social and Human Sciences, more specifically social marketing (Kotler & Zaltman, 1971; Schwartz, 1971; Kotler, 1972; Kotler & Roberto, 1989; Andreasen, 1994; 2002; Belch & Belch, 2004; Baker, 2005; Mendes, 2009; Barboza, 2012; Menezes & Sousa, 2014; Schneider & Luce, 2014; Dias, 2015; Rezende, Sousa, Pereira, & Rezende, 2015; Pereira, Sousa, Shigaki, & Rezende, 2017) in the attempt to understand the variables involved in blood donor behavior.

Pereira, Sousa, Shigaki and Lara (2019) highlight the complexity of the aspects that involve an individual's decision-making process in choosing to donate blood or not. Thus, according to the authors, understanding, even partially, the conditioning variables of such an act is of great value to think, for example, government policies and their respective social marketing actions in favor of the issue. In this sense, Baker (2005) points out that the advancement in the use of social marketing practices has contributed for people to adopt behaviors to improve their lives and that of their fellow citizens. For the author, an important point of this process is that this act comes imbued with a counterpart, that is, the subject expects something in return, whether emotional, social or personal.

Specifically about the strategies used in favor of the act of donating blood, the importance of knowing intrinsic aspects to individuals is highlighted, which, according to Gontijo (2010), can justify their actions in several ways. Most of them emphasize feelings related to solidarity, compassion, altruism, morality, the awareness that one day they may need donations, to experiential aspects and even to the possibility of taking examinations without financial cost, obtaining work absence with permission, desire of social belonging, among others. Given the above, the present study has as its guiding question: **what are the main factors that influence individuals to donate blood from the perspective of social marketing?**

The general objective was to identify the main factors that significantly influence individuals living in the metropolitan region of Belo Horizonte/MG to donate blood from the perspective of social marketing.



2 SOCIAL MARKETING: CONCEPT EVOLUTION AND THEORETICAL PERSPECTIVE

Historically, marketing has emerged with the objective of stimulating the consumption of products, services and promoting economic development (Baker, 2005). In this context, consumption becomes a way in which individuals declare their personal, cultural and social interests (Engel, Blackwell, & Miniard, 2000).

Notably, from the second half of the 1960s, it is possible to identify a paradigm shift in marketing theory and its application. This change was due to a series of discussions initiated during this period regarding the role that the marketing area would assume in the face of various social changes of the time (Kotler & Levy, 1969; Lazer, 1969; Luck, 1969). In response to this new scenario, there is a gradual expansionary structural and conceptual process of marketing, which began to encompass areas that went beyond its traditional economic perspective, such as religion, politics, and social issues, among others (Sheth, Gardner, & Garret, 1988; Ajzentel, 2008; Barakat, Lara, & Gosling, 2011; Pereira et al., 2017).

In this context, the emergence of social marketing, a term coined by Kotler and Zaltman (1971), is identified to refer to the application of conventional marketing methodologies in an attempt to solve social problems, emphasizing the process of marketing planning (Hunt, 2010) and the marketing mix (Perreault & McCarthy, 2002).

Schwartz (1971) discusses the theme as a large-scale program planning process, aiming to influence the voluntary behavior of a certain segment of individuals in order to achieve a social rather than a financial goal. In this sense, it is emphasized that social marketing is based on the provision of benefits that a certain public yearns for, thus promoting the reduction of barriers that the public faces, using persuasive aspects that will influence the public's intention, to act in line with expectations (Schwartz, 1971).

From this point of view, social marketing has as its main function to promote awareness and renewal in social standards in order to create socially learned behavior (lasting behavioral changes) that mainly promote collective well-being, and this is positioned above personal well-being (Barboza, 2012).

From this proposition, it is emphasized that social marketing has in its genesis an attempt to maximize society's "welfare" (Kotler & Zaltman, 1971; Schwartz, 1971; Kotler, 1972; Andreasen, 1994; 2002; Belch & Belch, 2004; Pereira et al., 2017). In addition to this position, Mendes (2009) points out that, in an attempt to achieve this goal, social marketing maintains its focus on changing behavior (incremental or radical) of the individual.

According to the reflections outlined here, a polarity is underlined in the classic conceptualization of Social Marketing, identifiable in the terms "influence" and "voluntary". It is understood that a voluntary gesture is one of intrinsic will of the individual and without any influence of external factors. In this sense, it is noteworthy that if a behavior suffers some kind of influence it, as a consequence, ceases to be voluntary and assumes an induced character (Gava, 2013).

In light of this approach, it is important for social marketing objectives to understand the predictor variables of a given behavior. These variables are discussed within the Theory of Planned Behavior.



3 PLANNED BEHAVIOR THEORY (TCP)

Theory of Planned Behavior (TCP) consists of a theoretical model proposed by Icken Ajzen in 1985, which arises from the agglutination and expansion of two other models prior to this one: the expectation-value model and the grounded action theory (Ramalho, 2006; Ajzen & Sheikh, 2016).

According to Matos (2008), TCP aims to predict and understand human behavior in general, through a reduced set of antecedent variables. In addition, Godin (1994) points out that TCP is proposed in order to identify motivational influences on behavior that is not in volitional control. In this sense, it enables the identification of certain points and aspects of human behavior and, as a result, it is possible to develop strategies for behavior modification, as well as explain certain behavior (Ajzen, 2015).

Hausenblas, Carron and Mack (1997) emphasize that, from the perspective of TCP, the most important of behavioral analysis is its intention, which can be considered the result of the combination of the influences of attitude and subjective norms under the individual. Under this bias, the attitude towards a given behavior can be understood as the result of beliefs generated from behavioral outcome evaluation processes, taking into consideration subjective norms, beliefs and motivations (Ajzen & Sheikh, 2016).

Ajzen (2002) points out that TCP assumes that an individual's behavior is mainly determined by the convergence of three predictor variables: behavioral beliefs, normative beliefs, and control beliefs. For the author, behavioral beliefs are those generated by the probable consequences of behavior, which determine unfavorable or favorable attitudes towards certain behavior (Ajzen, 2015).

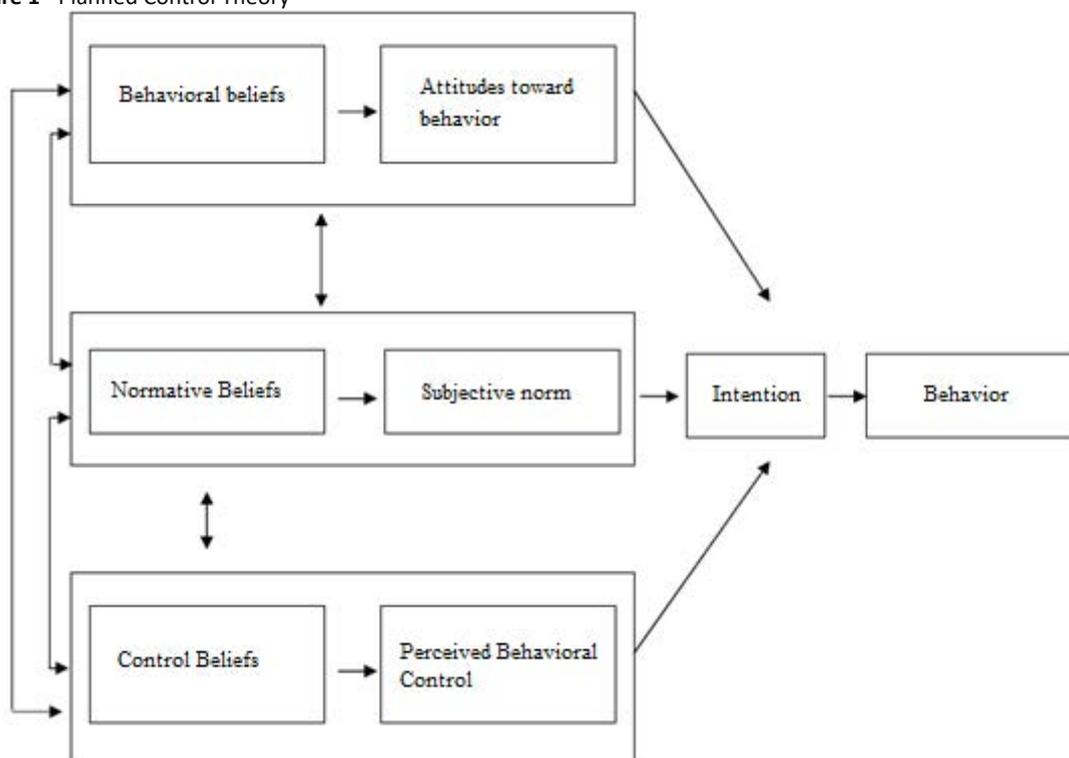
Normative beliefs, in turn, according to the perspective of O'Brien Cousins (1998), are those influenced by the normative expectation of others. In aggregate terms, they are those beliefs that are impacted by the social pressures perceived by the subject.

Control beliefs, on the other hand, refer to beliefs that enable or not a certain behavior, since they bring together factors that may be more or less under the control of the individual in question (Ramalho, 2006). It is noteworthy that this last belief implies the "perceived behavioral control" (CCP) (perception of difficulty or ease of performing a behavior) (Greaves, Zibarras, & Stride, 2013).

An important point to note in TCP is that, according to its assumptions, the simultaneous action between subjective norms, attitude toward a given behavior, and perceived control results in behavioral intention. Thus, being in an adequate level of control over behavior, the subject is predisposed to trigger certain behavior (Godin, 1994; Hausenblas, Carron, & Mack, 1997; Wankel, 1997; O'Brien Cousins, 1998; Ajzen, 2002; Ramalho, 2006; Matos, 2008; Ajzen, 2015; Kautonen, Gelderen, & Fink, 2015 Ajzen; Sheikh, 2016), according to the conceptual model presented in FIG. 1.



Figure 1 - Planned Control Theory



Source: Ajzen (2002, p.1).

From the diagram shown in FIG. 1, it is important to understand nomologically the constructs that make up TCP. In this sense, based on Godin (1994), Hausenblas, Carron and Mack (1997), Wankel (1997), O'Brien Cousins (1998), Ajzen (2002), Ramalho (2006) and Matos (2008), these constructs can be understood as:

- Behavior: execution of the action, that is, transformation of behavioral intention into the act itself.
- Intention: construct resulting from the convergence of three components, the CCP, the subjective norm and the attitude, which can be understood as an indication of the degree of effort that must be used for the behavior to be performed.
- Attitude: Simply put, it relates to the process of favorable or unfavorable assessment of a particular behavior.
- Subjective norm: The way in which social pressures are assimilated by the individual (normative beliefs) in order to adopt or not the behavior in question.
- CCP: It relates to an individual's belief of the subject, through which he will evaluate how easy or difficult it can be to adopt a behavior.

Therefore, it refers to the statements of Bagozzi, Gurhan-Canli and Priester (2002), according to which the intention to perform a given behavior is influenced by the perception of the level of control that the subject believes to have over the action in aggregate terms. Therefore, the greater the individual's belief in the idea of having control over a particular action, the more likely they are to initiate behavior. In addition, Engel, Blackwell and Miniard (2000) clarify that, in some situations, volitional control becomes limited due to difficulties imposed to the behavior execution. For these cases, intention and perceived behavioral control should be considered as behavioral predictors.

TCP has been widely used in academic discussions due to its already stated comprehensive and predictive utility of behavior. These include those related to the intention to deceive, steal and lie (Beck & Ajzen, 1991), consumption of genetically modified foods (Sparks, Shepherd, & Frewer, 1995), milk consumption (Raats, Shepherd, & Sparks, 1995), health (Conner & Sparks, 1996), alcohol consumption (Conner, Warren, & Close, 1999), intention to use marijuana (Conner & McMillan, 1999), deliberate self-harm intentions (O'Connor & Armitage, 2003), motivational aspects that may influence personal and social behaviors (Shepherd, Magnusson, & Sjöden, 2005), intention of healthy habits (Goecking, 2006), consumer behavior in relation to the consumption of generic drugs (Ramalho, 2006), intention to use condoms (Matos, 2008), explore environmental behavioral intentions in the workplace (Greaves, Zibarras, & Stride, 2013), prediction of entrepreneurial intentions (Kautonen, Gelderen, & Fink, 2015); intention of university students to do postgraduate studies (Sutter & Paulson, 2017), among others.

4 METHODOLOGY

This study is characterized as descriptive, built in the light of a quantitative approach. For this, a survey was developed, which allowed to collect 641 completed questionnaires. Individuals aged 16 to 69 years, among donors, non-donors or potential blood donors, living in the metropolitan region of Belo Horizonte, Minas Gerais, Brazil, were surveyed. The lower and upper age limits of the study population followed the criteria for blood donation defined by the Ministry of Health (2014).

Data were collected by applying a structured questionnaire developed based on the instrument validated by Menezes (2013). The original instrument was adapted and included new variables, based on the works of Sampaio (2004), Ludwig and Rodrigues (2005), Benetti and Lenardt (2006), Matos (2008), Meira and Santos (2012), Barboza and Costa (2014), Dias (2015) and Rezende et al. (2015).

Two pre-tests were performed in April 2015 to identify possible aspects that are difficult to understand and the best configuration of the Likert scale, which evaluated the possibilities of 5 and 7 points. In each of these steps, the questionnaire was applied to 30 individuals, respecting the established exclusion criteria. The main aspect observed was the best fit of the questionnaire to the seven-point Likert scale.

The temporal data cut was cross-sectional, since they were collected continuously from May to September 2015, totaling five months of collection.

Data analysis was performed by applying two distinct groups of statistical techniques. Initially, descriptive, univariate and multivariate statistics were applied using the statistical software SPSS (Statistical Package for the Social Sciences).

After completing the exploratory and confirmatory factor analyzes, an exploratory model was built to explain the variables related to the intention to donate blood, using the Structural Equations Modeling (SEM) technique. Second-generation multivariate statistics widely used in marketing research (Babin, Hair Jr., & Boles, 2008), which allows to combine certain aspects of multiple regression with factor analysis (Hair Jr, Black, Babin, Anderson, & Tatham, 2009).

The collected sample met the recommendations of Malhotra (2012) and Hair Jr. et al. (2009), of a minimum of five questionnaires per analyzed variable, in the case of a multivariate analysis, being ideal to reach 10 questionnaires. For the present case, there were 64 variables in Likert scale, and therefore, a total of 10.02 questionnaires per variable were obtained.



5 DATA PRESENTATION AND ANALYSIS

In this section the data are presented and analyzed in light of the proposed theory and methodological approach.

5.1 Exploratory data analysis

The sample of this study consists of 641 respondents, of which 63.2% are women (405) and 36.8% men (236). The predominant age group of the sample is individuals between 16 and 17 years old (39.1%), 30.5% of respondents are between 18 and 30 years old, 25.6% between 31 and 50 years old, 4.4% of the respondents are from 51 to 60 years old and 0.4% are over 60 years old.

The first step of data analysis included the identification of the extreme observations, or outliers, that present a relevant departure from the sample. For its identification, the criterion was the number of deviations from the mean (Hair Jr. et al., 2009), and 68 outliers were identified, considering a significance level of 0.001. These questionnaires were eliminated from the study, as proposed by Hair Jr. et al. (2009), so that the results achieved are more faithful.

For data normality analysis, the Kolmogorov-Smirnov and Shapiro-Wilk tests were performed. The results indicated the absence of data normality at 5% significance level. The linearity of the sample data was tested using Spearman correlation matrices for the indicators that make up the same construct. It is noteworthy that for cases where it was not possible to identify significant correlation levels in 5% two-tailed, scatter plots were constructed in order to verify the existence of a possible linear relationship between two variables. This analysis pointed to the nonexistence of a linear relationship between the variables.

According to Hair Jr. et al. (2009), in quantitative studies, when a normality of data is not identified, to interpret the relationship between them, one must choose a parameter estimation method. For this study, the method adopted was the "Generalized Least Squares" (GLS), which starts from the assumption of multivariate normality, and can adjust the model from some possible violations of multivariate analysis patterns.

For the analysis of the unidimensionality of the constructs, following the literary assumptions, in this study the verification of the degree of homogeneity of the constructs was performed by means of exploratory factor analysis (EFA) with orthogonal rotation (Varimax) (Anderson & Gerbing, 1988; Dunn, Seaker, & Waller, 1994; Mosque, 2010).

After exploratory factor analysis, the sample data were organized into 15 different constructs, namely: Intention to donate blood; Pro-donation attitude; Subjective norm; Emotions; Motivation; Normative Beliefs; Attitude towards screening; Accessibility; Information; Security perception; Attitude towards recruitment; Control beliefs; Attitude towards campaigns; Campaigns appeal; And, finally, Experiences.

Following the guidelines of Hair Jr. et al. (2009) and Malhotra (2012), after the construct validation phase, the nomological validation began, which sought to analyze the relationship between the constructs present in the model. In this phase, the correlations between the constructs were tested in order to analyze their degree of significance and contributions to the assembly of the final model.

In this sense, by using the Amos 18.0 software, correlation tests were performed between all constructs in order to generate an explanatory structural model about blood donation.



5.2 Convergent and discriminant validity

The indicators that make up a sample must have the ability to explain their dimensions. In this sense, convergent validity is used to assess the degree to which measurements of the same concept correlate with each other. In other words, she considers “how much indicators of a specific construct converge or share a high proportion of common variance” (Hair Jr. et al., 2009, p. 589).

The technique used to analyze the convergent validity of constructs is Confirmatory Factor Analysis (CFA) (Bagozzi & Lee, 2002). It is appropriate to assess the convergent validity of the indicators, identifying whether their respective factor loadings are significant at the 1% or 5% level according to one-tailed t tests ($t_{\alpha / 2} = 5\% = 1.65$; $t_{\alpha / 2} = 1\% = 2.23$).

For this study, instead of analyzing the significance index of factor loadings, we chose to evaluate the degree of magnitude of the variance extracted from the indicators, which, according to Hair Jr. et al. (2009), must be a value greater than 0.500. To calculate the convergent validity it was decided to set the variance of the constructs to 1, in order to standardize the parameters and loads of the indicators. In this sense, convergent validity was identified in the constructs of this study, where factor loadings have critical values greater than 2.576, obtaining significance at the level of 1%.

Discriminant validity is related to the degree to which the constructs reflect various aspects of the phenomenon in question (Malhotra, 2012). For its calculation the confirmatory factor analysis is used (Bagozzi & Lee, 2002).

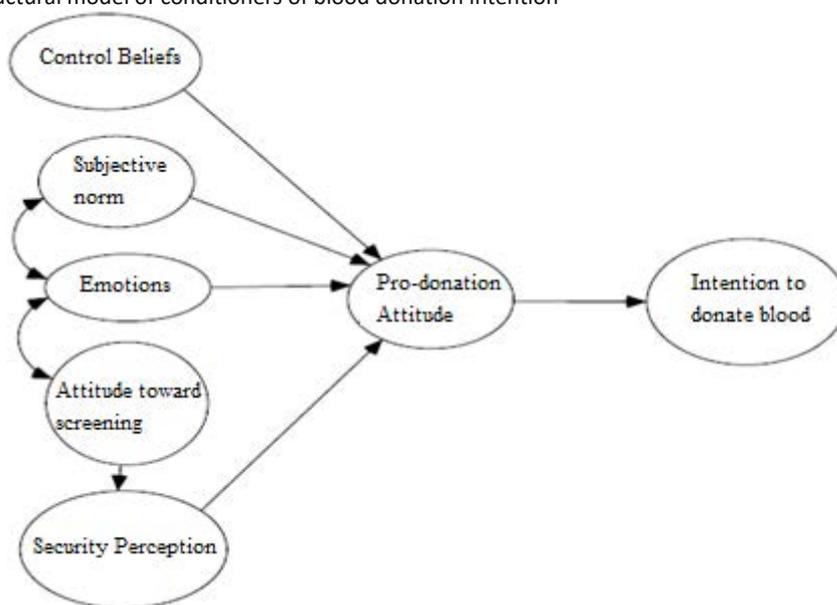
To calculate discriminant validity, using the Amos 18.0 software, pairs of constructs are formed to establish the statistical chi-square differences. According to Bagozzi and Heatherton (1994), obtaining this difference is accomplished by setting the correlation between two constructs at 1, the so-called perfect correlation, at a first moment, and leaving it free at a second moment. In this study, discriminant validity was reached among all constructs except APD - INT. Based on the propositions of Netemeyer, Bearden and Sharma (2003), it was decided to keep the constructs as a function of the index reached if they were close to the allowed limit, since only one correlation did not meet the criteria.

After the validation phase of the constructs and their relationships, it was possible to design and test an exploratory model that explained blood donation behavior. The next subsection is intended to present this model.

5.3 Structural model of the determinants of blood donation intent

In this subsection, the structural model derived from the constructs and their respective relationships are analyzed based on the theoretical parameters (Bagozzi & Heatherton, 1994; Netemeyer, Bearden, & Sharma, 2003; Hair Jr. et al., 2009; Hair Jr, Gabriel, & Patel, 2014). FIG. 2 presents the structural model of the present study.

Figure 2 - Structural model of conditioners of blood donation intention



Source: Research data.

After the conception of the exploratory model followed the guidelines of Anderson and Gerbing (1988) and Hair Jr. et al. (2009), according to which the degree to which the model predicts the correlation matrix (absolute measurements), i.e., its degree of adjustment, should be verified. For this, the following parameters were considered based on Bagozzi and Lee (2002): standard chi-square, fit quality index (GFI), adjusted quality index (AGFI), standard fit index (NFI), comparative fit (CFI) and the mean square root of the approximation error (RMSEA). Table 1 presents the values related to the model adjustment indices.

Table 1 - Adjustment Indices for the Model

Adjustment measures	Criterion	Result
P-Value	> 0,05	0.000
Chi square /df 1	1 – 5	3.228
Fit tests (GFI)	> 0.8	0.884
GFI adjusted (AGFI)	> 0.9	0.859
Comparative Adjustment Index (CFI)	> 0.9	0.551
Normed Fit Index (NFI)	> 0.9	0.469
Root Mean Square Error of Approximation (RMSEA)	> 0.03 – 0.08<	0.062
R ²		0.50

Source: Research data.

From the analysis of Table 1 an adequate adjustment of the model is verified. However, the AGFI index stood at 0.859, a value 0.041 lower than recommended by the literature. The NFI and CFI indices were set at a considerably lower value than recommended (Bagozzi & Lee, 2002). However, this fact is justified because it is an exploratory study, in which it is not intended to validate previously built theories, but to indicate relationships between constructs that allow pointing out ways for further investigation. Table 2 shows the regression weights of the model.

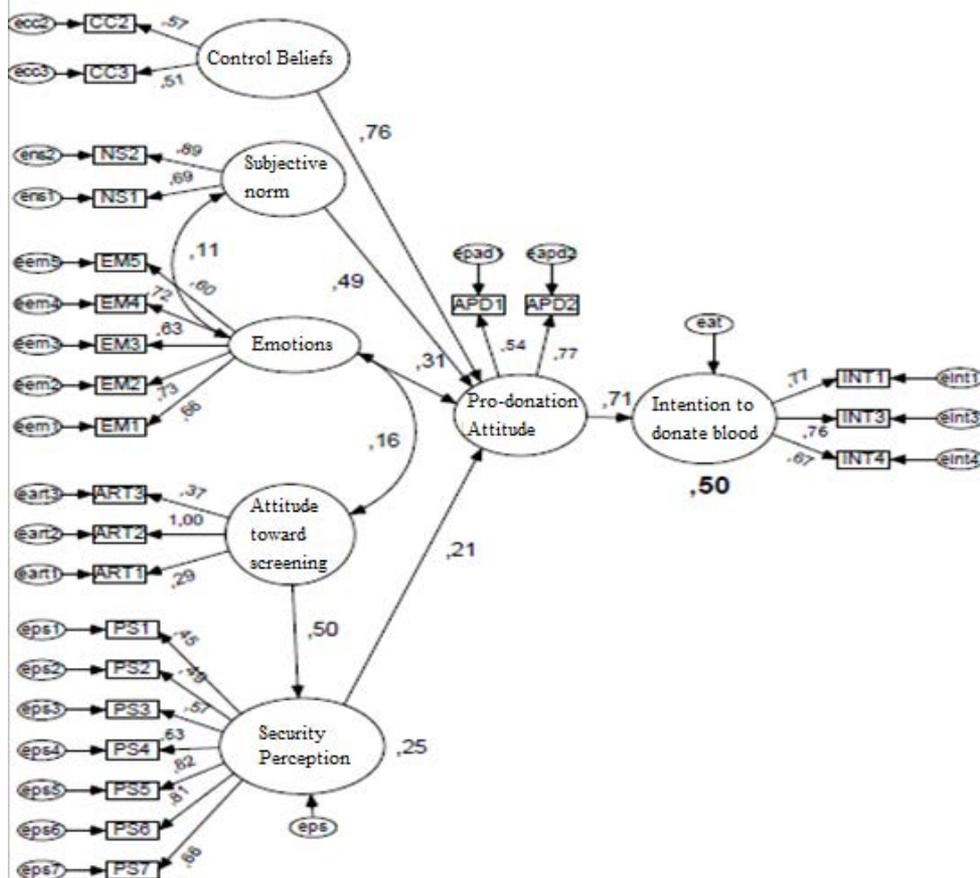
Table 2 - Model Regression Weights

Dependent construct	Dependent constructo	Standardized regression weight (β)	Regression weight	S.E.	C.R.	P
APD	NS	0.490	0.208	0.031	6.617	***
APD	CC	0.761	0.648	0.109	5.922	***
APD	EM	0.307	0.234	0.052	4.516	***
APD	OS	0.209	0.131	0.036	3.623	***
OS	ART	0.504	1.049	0.204	5.139	***
INT	APD	0.707	0.766	0.092	8.326	***

Source: Research data.

According to the data presented in Table 2, the construct “Pro-donation Attitude” (ODA) is influenced by four other constructs, and the “Subjective Norms” exert an influence of 0.490 β . A strong influence of the “Control Beliefs” on the formation of the “Pro-Donation Attitude” (0.761 β), as well as the moderate influence of two other constructs, the “Emotions” (0.307 β) and the “Security Perception” were identified. (0.209 β). An important point to note is the considerable influence of “Screening Attitude” on the individual’s perception of the safety of the blood donation process (0.504 β). Finally, it is noteworthy that the “Intent to Donate Blood”, a construct proposed to measure in this study, is strongly affected by the “Pro-Donation Attitude” (0.707 β). All these relationships are statistically significant ($P < 0.001$). FIG. 3 presents the relationships in the proposed final model.

Figure 3 - Final model of blood donor intent conditioners



Source: Research data.



Based on the structural model presented in Figure 3, some considerations are important. Initially, it is worth noting the observance of aspects related to clinical and hematological screening, whether the attitude of the potential donor or their respective perception of safety in the process of blood donation. Therefore, as noted by Pereira et al. (2016) the influence of screening on the attitude of the individual in donating blood. Sometimes, screening is seen as one of the main aspects that contribute to the failure of the act, given that, due to the ineffectiveness of social marketing actions in the Brazilian context (Rezende et al., 2015; Pereira et al., 2019), potential donors usually go to blood centers with little or no information needed, and are eventually prevented from donating blood during the screening process. As a reflection of this scenario, screening ends up being perceived as one of the main impediment factors to the act (Pereira et al., 2016), despite its emphasized importance for individual safety (Pereira & Shigaki, 2018).

A second point to note is the influence of emotional aspects on the attitude towards blood donation. Emotions are an important modulator of human behavior, and they can influence behavior positively and / or negatively (Mogilner, Aaker, & Kamvar, 2011; Onwezen, Reinders, & Sijtsema, 2017). Specifically with regard to the act of donating blood, emotions are important conditioning factors to attitude and intention (France & France, 2018), since the process is surrounded by a series of experiential, motivational and symbolic aspects that are directly associated, to the emotions (Pereira & Shigaki, 2018).

It is also emphasized the permanence of the subjective norm and control beliefs as variables relevant to the pro-donation attitude in the model developed here. Therefore, it is emphasized that the control beliefs and the subjective norm are constructs already recognized and validated nationally and internationally for their influence on human behavior, through the Planned Behavior Theory (Ajzen, 2002; Ramalho, 2006; Matos, 2008; Greaves, Zibarras, & Stride, 2013; Ajzen, 2015; Kautonen, Gelderen, & Fink, 2015; Ajzen & Sheikh, 2016). Thus, the model developed here confirms the fact that the individual being in a considerable level of control over their behavior will be predisposed to perform certain suggested behavior (Greaves, Zibarras, & Stride, 2013; Ajzen, 2015; Coelho, Ibiapina, Leocadi, & Loss, 2019), in this case the blood donation.

Finally, it was identified that the intention of blood donation is directly influenced by the attitude of the subject; similar results were achieved by other studies involving the relationship established between TCP and Social Marketing (Beerli-Palacio, 2009; Coelho et al., 2019).

In order to elucidate relationships and differentiations between the respondents segments of this research, we proceeded with univariate statistics analysis.

As presented above, the sample of the present study comprises different characterizations of respondents: donors and non-donors. As a result, the difference between means for different groups between individuals who have donated and those who have never donated blood was analyzed.

The results showed that of the 64 indicators in this study, only 13 presented statistically significant mean differences (marked in red). It is identified that the means of the group of individuals who have already donated blood presented higher values for 11 of the 13 indicators in question, they are:

- APD3 (Donating blood is good for the health of the donor).
- ARR3 (Donation scheduling would motivate people to donate blood).
- PS1 (Blood donation is a safe act for the donor).
- PS2 (The donated blood will not be missed by the donor organism).
- PS5 (The clinical and hematological screening process is effective).
- PS6 (The clinical and hematological screening process ensures safety for the recipient).
- ART3 (People speak the truth in the screening process).



- ART5 (I am informed about habits and behaviors that pose a risk to donated blood).
- EM3 (Being a blood donor makes me proud).
- AC3 (People are well cared for when they donate blood).
- AC4 (Blood center professionals are friendly and careful with donors).

These indicators are related to the practice of blood donation, a fact that justifies the averages obtained for these individuals in relation to those who have already donated blood to be superior, in a statistically significant difference, from the average of the other group. In other words, people who have already donated blood tend to perceive such variables more latently than people who have never donated blood.

Only two indicators, IN3 (When the donor donates blood to someone in particular, the donated blood necessarily goes to that person) and INT2 (I want to donate blood because I may need it one day), had higher averages for the group of individuals who never donated blood. It is noted that the INT2 indicator refers to the intention to donate blood which, in turn, can be perceived more intensely for the group of individuals who never donated blood. Indicator IN3, on the other hand, relates to the individual's level of information about blood donation, which is usually lower in non-donors.

6 FINAL CONSIDERATIONS

The current scenario of blood donation in Brazil is marked by an offer of donors below WHO's ideal levels. Due to this context, for the development of the present study, the objective was to identify the main factors that significantly influence individuals living in the metropolitan region of Belo Horizonte / MG to donate blood.

Theoretically, this study aimed to discuss the issue in question, blood donation, from the perspective of social marketing, which intended, through a cross-sectional and interdisciplinary approach, to build a theoretical discussion that encompassed other areas of knowledge, such as, for example, Sociology, Anthropology and Psychology.

From the proposition of understanding social marketing as an inductive process of behavioral change, methodologically, it was decided to develop a quantitative approach research developed in the light of structural equation modeling, a method that allows identifying predictive and / or causal relationships, thus allowing an exploratory behavioral model to be developed about the intention to donate blood.

The structural model developed identified that the dependent variable (intention to donate blood) is directly influenced by the 'pro-donation attitude', which, in turn, is explained by the 'subjective norms', 'control beliefs', 'emotions' and 'perception of safety' of the individual. It is noted here that, in the case of blood donation, the 'attitude towards screening' contributes significantly to the 'perception of safety' that the individual has about the process of blood donation.

It is noteworthy that, in this study, the construct intention to donate blood consists mainly of aspects related to the possibility of saving the life of a third party, and explained by the individual's predisposition to donate blood. In this sense, the degree of intention of the subject is strongly influenced by the psychological representation of the individual about the act of donating blood, as well as by its degree of intensity, whether favorable or unfavorable.

The pro-donation attitude, in turn, can be understood as a compendium of the convergence of psychosocial factors surrounding the individual. In this system, the individual's sense of morality stands out, that is, the way in which he perceives the social pressures around him as a way of shaping his predisposition.



It is also emphasized the influence of beliefs that perform the function of enabling or not determined behavior. In aggregate terms, these beliefs create a kind of psychological system that controls the behavior of the individual. In this sense, it is emphasized that, in the structural model of this study, this is the construct that provides the highest rate of explanation in the pro-donation attitude of the individual (0.76 β).

The emotions construct presents in its structure aspects related to an individual's reward mechanism, so that positive emotions tend to trigger positive valence attitudes toward blood donation.

In the same sense, the positive perception of safety in relation to the process favors the formation of a positive attitude about blood donation. We highlight the significant influence of the attitude of the individual towards the clinical and hematological screening processes, in their perception of its safety.

Among the contributions from this study, there is a deepening of the knowledge of the variables that influence the individual who voluntarily performs an act such as blood donation. In this sense, this study provides inputs for the development of more assertive, efficient and effective blood donation public policies, contributing to the recovery of blood banks and raising the rate of donors in the country.

Limitations of the present study include the difficulty of access to the main hemotherapy center in the state, Minas Gerais Blood Bank Foundation (Hemominas), a fact that prevented access to up-to-date data on the region's blood donation scenario, as well as donor characteristics and main reasons for donation impediments.

This study identified a difference between groups of respondents in their perception of the analyzed variables. Initially, the indicators that are directly related to the practice of blood donation obtained statistically significant mean differences between the group of individuals who already donated blood and who never donated blood. In general terms, the donor group tends to perceive such variables more latently than people who have never donated blood. In this sense, we suggest further comparative studies between these groups, aiming to understand how the intention to donate blood is configured in these groups.

Finally, it is added as a suggestion for future studies to analyze the engagement provided by these campaigns, based on metrics coming from the Neurosciences, which would allow the identification of factors not easily verbalized by the interviewees.

REFERÊNCIAS

AJZEN, I. (2002). **Constructing a TPB questionnaire: Conceptual and methodological considerations.**

AJZEN, I. (2015). A teoria do comportamento planejado está viva e bem, e não está pronta para se aposentar: um comentário sobre Sniehotta, Pesseau e Araújo-Soares. **Revisão da psicologia da saúde**, 9(2), 131-137.

AJZEN, I., & SHEIKH, S. (2016). Action versus inaction: anticipated affect in the theory of planned behavior. **Journal of Applied Social Psychology** 46(5), 313-314.

AJZENTAL, A. (2008). **Uma história do pensamento em Marketing.** Tese de doutorado apresentada a Escola de Administração de Empresas de São Paulo.

ANDERSON, J. C., & GERBING, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. **Psychological bulletin**, 103(3), 411.



- ANDREASEN, A. R. (1994). Social marketing: its definition and domain. **Journal of Public Policy & Marketing**, 13(1), 108-114.
- ANDREASEN, A. R. (2002). Marketing social marketing in the social change marketplace. **Journal of Public Policy & Marketing**, 21(1), 3-13.
- BABIN, B. J., HAIR, J. F., & BOLES, J. S. (2008). Publishing research in marketing journals using structural equation modeling. **Journal of marketing theory and practice**, 16(4), 279-286.
- BAGOZZI, R. P., & HEATHERTON, T. F. (1994). A general approach to representing multifaceted personality constructs: Application to state self-esteem. **Structural Equation Modeling: A Multidisciplinary Journal**, 1(1), 35-67.
- BAGOZZI, R. P., GURHAN-CANLI, Z., & PRIESTER, J. R. (2002). **The Social Psychology of Consumer Behaviour**, Buckingham: Open University Press.
- BAGOZZI, R. P., & LEE, K. H. (2002). Multiple routes for social influence: The role of compliance, internalization, and social identity. **Social psychology quarterly**, 226-247.
- BAKER, M. J. (2005). **Administração de Marketing**. Rio de Janeiro: Elsevier.
- BARAKAT, L. L., LARA, J. E., & GOSLING, M. (2011). O surgimento da escola de pensamento do marketing de relacionamento e seus fundamentos. **Revista Pretexto**, 12(3).
- BARBOZA, S. I. S. (2012). **Marketing social aplicado à doação de sangue: fatores condicionantes de comportamento**. (Dissertação de Mestrado). Universidade Federal da Paraíba, João Pessoa.
- BARBOZA, S. I. S., & COSTA, F. J. D. (2014). Social marketing of blood donation: an analysis of new donors' predisposition. **Cadernos de Saúde Pública**, 30(7), 1463-1474.
- BECK, L., & AJZEN, I. (1991). Predicting dishonest actions using the theory of planned behavior. **Journal of research in personality**, 25(3), 285-301.
- BEERLI-PALACIO, A., & MARTÍN-SANTANA, J. D. (2009). Model explaining the predisposition to donate blood from the social marketing perspective. **International Journal of Nonprofit and Voluntary Sector Marketing**, 14(3), 205-214.
- BELCH, G. E., & BELCH, M. A. (2004). **Advertising and promotion: An integrated marketing communications perspective**. The McGraw– Hill.
- BENETTI, S. R. D., & LENARDT, M. H. (2006). Un significado atribuido a la sangre según los donadores y los receptores. **Texto & Contexto-Enfermagem**, 15(1), 43-50.
- BERGER, P. L., & LUCKMANN, T. (2009). **A construção social da realidade**. 30ª ed. Rio de Janeiro: Vozes.
- BRAZIL. MINISTÉRIO DA SAÚDE.razil. (2011). Portaria nº 1.353, de 13 de junho de 2011. **Aprova o regulamento técnico de procedimentos hemoterápicos**. Recuperado de<<http://portal.anvisa.gov.br/wps/content/Anvisa+Portal/Anvisa/Inicio/Sangue+Tecidos+e+Orgaos/Assunto+de+Interesse/Publicacoes+e+Apresentacoes/Legislacao/Portaria+n+1353+de+13+de+junho+de+2011>>.
- BRAZIL. (2014). **Portal Brasil**. Recuperado de<<http://www.brasil.gov.br/saude/2012/05/ministerio-alerta-para-reducao-no-estoque-de-sangue>>.



- BRAZIL. MINISTÉRIO DA SAÚDE. (2015). **Desafios da hematologia e hemoterapia para os próximos anos**. Recuperado de <http://gciamt2015.com.br/uploads/pagina/arquivos/123_sala-b-170415-tarde---joao-paulo-baccara---desafios-da-hematologia-e-hemoterapia-para-os-proximos-anos---gciamt2015.pdf>
- BRAZIL. MINISTÉRIO DA SAÚDE. (2015a) **Brasil sedia solenidade em comemoração ao dia mundial**. Recuperado de <<http://portalsaude.saude.gov.br/index.php/o-ministerio/principal/secretarias/sas/sas-noticias/18191-brasil-sedia-solenidade-em-comemoracao-ao-dia-mundial>>.
- BRAZIL. MINISTÉRIO DA SAÚDE. (2015b). **Manual de orientações para a promoção da doação voluntária de sangue**. Brasília: Ministério da Saúde.
- BRAZIL. MINISTÉRIO DA SAÚDE. (2017). **Apenas 1,8% dos brasileiros são doadores de sangue. Brasília: Ministério da Saúde**. Recuperado de <<http://www.brasil.gov.br/noticias/saude/2017/06/apenas-1-8-dos-brasileiros-sao-doadores-de-sangue>>.
- COELHO, P., IBIAPINA, I., LEOCADI, A. L., & LOSS, D. G. (2019). Predisposição para Doação de Medula Óssea à Luz da Teoria do Comportamento Planejado. **Teoria e Prática em Administração (TPA)**, 9(1), 119-130.
- COLLIS, J., & HUSSEY, R. (2005). **Pesquisa em Administração: um guia prático para alunos de graduação e pós-graduação**. 2ª ed. Porto Alegre: Bookman.
- CONNER, M., & SPARKS, P. (1996). **The theory of planned behaviour and health behaviours**. Open University Press.
- CONNER, M., WARREN, R., CLOSE, S., & SPARKS, P. (1999). Alcohol consumption and the theory of planned behavior: An examination of the cognitive mediation of past behavior. **Journal of Applied Social Psychology**, 29(8), 1676-1704.
- CONNER, M., & MCMILLAN, B. (1999). Interaction effects in the theory of planned behaviour: Studying cannabis use. **British journal of social psychology**, 38(2), 195-222.
- DIAS, R. G. (2015). **O uso de metáforas na análise da eficácia das campanhas de marketing social sobre a prevenção aos acidentes de trânsito: um estudo com condutores habilitados**. (Dissertação de Mestrado). Faculdade Novos Horizontes, Belo Horizonte.
- DUNN, S. C., SEAKER, R. F., & WALLER, M. A. (1994). Latent variables in business logistics research: scale development and validation. **Journal of Business logistics**, 15(2), 145.
- ENGEL, J. F., BLACKWELL, R. D., & MINIARD, P. W. (2000). **Comportamento do Consumidor**. (8ª ed.). Rio de Janeiro: Livros Técnicos e Científicos Editora S.A.
- FRANCE, C. R., & FRANCE, J. L. (2018). Online responses to motivational interview questions enhance blood donation intention. **Transfusion**, 58(12), 2874-2879.
- GAVA, A. (2013). A imagem reversa da observação. **Perspectiva Filosófica**, 1(39), 111-122.
- GODIN, G. (1994). Theories of reasoned action and planned behavior: usefulness for exercise promotion. **Medicine and science in sports and exercise**, 26(11), 1391-1394.



- GOECKING, O. H. P. (2006). **Comparação de teorias da ação para explicar intenções comportamentais e comportamentos reais correspondentes.**
- GONTIJO, H. M. D. O. (2010). Doação de sangue: um compromisso social. In: **Cadernos Hemominas: Capacitação de profissionais de agências transfusionais e assistenciais hemoterápicas / Fundação Centro de Hematologia e Hemoterapia de Minas Gerais.** Belo Horizonte: Fundação Hemominas.
- GREAVES, M., ZIBARRAS, L. D., & STRIDE, C. (2013). Using the theory of planned behavior to explore environmental behavioral intentions in the workplace. **Journal of Environmental Psychology**, 34, 109-120.
- HAIR, J. F., BLACK, W. C., BABIN, B. J., ANDERSON, R. E., & TATHAM, R. L. (2009). **Análise multivariada de dados.** Bookman editora.
- HAIR JR, J. F., GABRIEL, M. L., & PATEL, V. K. (2014). Modelagem de Equações Estruturais Baseada em Covariância (CB-SEM) com o AMOS: Orientações sobre a sua aplicação como uma Ferramenta de Pesquisa de Marketing. **Revista Brasileira de Marketing**, 13(2), 44-55.
- HAUSENBLAS, H. A., CARRON, A. V., & MACK, D. E. (1997). Application of the theories of reasoned action and planned behavior to exercise behavior: A meta-analysis. **Journal of Sport and Exercise Psychology**, 19(1), 36-51.
- HUNT, S. D. (2010). **Marketing theory: foundations, controversy, strategy.** Resource-Advantage Theory.
- KAUTONEN, T., VAN GELDEREN, M., & FINK, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. **Entrepreneurship theory and practice**, 39(3), 655-674.
- KOTLER, P. (1972). A generic concept of marketing. **Journal of marketing**, 36(2), 46-54.
- KOTLER, P., & LEE, N. (2011). **Marketing social influenciando comportamentos para o bem.** Porto Alegre: Bookman.
- KOTLER, P., & LEVY, S. (1969). A New Form of Marketing Myopia: Rejoinder to Professor Luck. **Journal of Marketing**, 33(3), 55-57.
- KOTLER, P., & ROBERTO, E. L. (1989) **Social marketing: strategies for changing public behavior.** New York: Free Press.
- KOTLER, P., & ZALTMAN, G. (1971). Social Marketing. **Journal of Marketing**, 35(3), 3-12.
- LAZER, W. (1969). Marketing's changing social relationships. **Journal of Marketing**, 33(1), 3-9.
- LUCK, D. J. (1969). Broadening the concept of marketing. Too far. **The Journal of Marketing**, 53-55.
- LUDWIG, S. T., & RODRIGUES, A. C. D. M. (2005). Doação de sangue: uma visão de marketing. **Cadernos de Saúde Pública**, 21, 932-939.
- MALHOTRA, N. K. (2012). **Pesquisa de marketing: uma orientação aplicada.** Bookman.



- MATOS, E. B. (2008). **A intenção de uso de preservativo: um estudo de adolescentes comparando gêneros e classes sociais**. 2008. Dissertação (Mestrado em Administração). Universidade Federal de Minas Gerais - UFMG, Belo Horizonte.
- MEIRA, P. R. D. S., & SANTOS, C. P. D. (2012). Programas de marketing social: proposição e exame de uma estrutura conceitual de avaliação de resultados. **Revista de administração pública**, 46(2), 493-522.
- MENDES, L. (2009). A Gênese do Marketing Social nas Idéias de Biopolítica e Biopoder de Michel Foucault: Considerações Críticas. Anais do XXXIII Encontro da ANPAD. 33, São Paulo.
- MENEZES, A. G. (2013). **Comportamento do doador de sangue: aspectos experienciais e motivacionais**. 2013. Dissertação (Mestrado em Administração). Faculdade Novos Horizontes, Belo Horizonte.
- MENEZES, A. G., & SOUSA, C. V. (2014). Comportamento do Doador de Sangue: uma análise a luz do Marketing Social. **Anais do Encontro de Marketing da Associação Nacional de Pós-Graduação e Pesquisa em Administração**, Gramado.
- MESQUITA, J. M.C. (2010). **Estatística multivariada aplicada à administração: guia prático para utilização do SPSS**. Curitiba: CRV.
- MOGILNER, C., AAKER, J., & KAMVAR, S. D. (2011). How happiness affects choice. **Journal of Consumer Research**, 39(2), 429-443.
- NETEMEYER, R. G., BEARDEN, W. O., & SHARMA, S. (2003). **Scaling procedures: Issues and applications**. Sage Publications.
- O'BRIEN COUSINS, S. (1999). The self-talk model for motivation older adults. Alcoa National Forum On Older Adults And Active Living. Abstracts: Canadian Centre for Activity and Aging Held at: The University of Western Ontario. In: **Celebration of the International Year of Older Persons (IYOP)**, 13-16.
- O'CONNOR, R. C., & ARMITAGE, C. J. (2003). Theory of planned behaviour and parasuicide: An exploratory study. **Current psychology**, 22(3), 196-205.
- ONWEZEN, M. C., REINDERS, M. J., & SIJTSEMA, S. J. (2017). Understanding intentions to purchase bio-based products: The role of subjective ambivalence. **Journal of Environmental Psychology**, 52, 26-36.
- ORGANIZAÇÃO MUNDIAL DE SAÚDE. (2016) **Global Status Report on Blood Safety and Availability**. Recuperado de <<https://apps.who.int/iris/bitstream/handle/10665/254987/9789241565431-eng.pdf;jsessionid=DFE436719B6BED2488AF2A597C010F74?sequence=1>>.
- PEREIRA, J. R., SOUSA, C. V., MATOS, E. B. D., REZENDE, L. B. O., BUENO, N. X., & DIAS, Á. M. (2016). To donate or not donate, that is the question: an analysis of the critical factors of blood donation. **Ciencia & saude coletiva**, 21, 2475-2484.
- PEREIRA, J. R., SOUSA, C. V., SHIGAKI, H. B., & REZENDE, L. B. O. (2017). Social Marketing: induction or volunteerism? **Revista Brasileira de Estratégia - REBRAE**, 10(2), 329-344.
- PEREIRA, J. R., & SHIGAKI, H. B. (2018). Influências subjetivas do ato de doar sangue: aspectos



- motivacionais, experienciais e simbólicos. **Revista Horizontes Interdisciplinares da Gestão**, 2(1), 106-130.
- PEREIRA, J. R., SOUSA, C. V., SHIGAKI, H. B., & LARA, J. E. (2019). Between Social Welfare and Public Power: an analysis of social marketing strategies for blood donation. **Brazilian Journal of Marketing**, 18(1), 73.
- PERREAULT, W. D., MCCARTHY, E. J. (2002). **Basic Marketing: A global-managerial approach**. Nova York: McGraw-Hill.
- PESSANHA, V. A. (2011). **Proposta para acreditação da divisão de produção de Painéis sorológicos de bio-manguinhos / Fiocruz na norma Iso/iec 17043 – conformity assessment – general requirements For proficiency testing**. Dissertação (Mestrado em Tecnologia de Imunobiológicos). Fundação Oswaldo Cruz - Fiocruz, Rio de Janeiro.
- RAATS, M. M., SHEPHERD, R., & SPARKS, P. (1995). Including Moral Dimensions of Choice Within the Structure of the Theory of Planned Behavior 1. **Journal of Applied Social Psychology**, 25(6), 484-494.
- RAMALHO, W. (2006). **Modelos de atitudes em mercados de produtos novos entrantes**. Análise com medicamentos genéricos, contribuições teóricas e validação nomológica. 2006. 300 f. Tese (Doutorado em Administração) – Centro de Pós Graduação e Pesquisa em Administração, Universidade Federal de Minas Gerais, Belo Horizonte.
- REZENDE, L. B. O., VELOSO, C., PEREIRA, J. R., & REZENDE, L. O. (2015). Doação de órgãos no Brasil: uma análise das campanhas governamentais sob a perspectiva do marketing social. **Revista Brasileira de Marketing**, 14(3), 362-376.
- SAMPAIO J. R. (2004). **Voluntários: um estudo sobre a motivação de pessoas e cultura em uma organização do terceiro setor** [tese]. São Paulo: Universidade de São Paulo.
- SCHNEIDER, G., & LUCE, F. B. (2014). Marketing social: abordagem histórica e desafios contemporâneos. **Revista Brasileira de Marketing**, 13(3), 125-137.
- SCHWARTZ, G. (1971). Marketing: the societal marketing concept. **University of Washington Business Review**, 31(3), 31-8.
- SHETH, J. N., GARDNER, D. M., & GARRETT, D. E. (1988). **Marketing theory: evolution and evaluation** (Vol. 12). John Wiley & Sons Inc.
- SHEPHERD, R., MAGNUSSON, M., & SJÖDÉN, P. O. (2005). Determinants of consumer behavior related to organic foods. **AMBIO: A Journal of the Human Environment**, 34(4), 352-359.
- SPARKS, P., SHEPHERD, R., & FREWER, L. J. (1995). Assessing and structuring attitudes toward the use of gene technology in food production: The role of perceived ethical obligation. **Basic and applied social psychology**, 16(3), 267-285.
- SUTTER, N., & PAULSON, S. (2017). Predicting college students' intention to graduate: a test of the theory of planned behavior. **College Student Journal**, 50(3), 409-421.
- WANKEL, L. M. (1993). The importance of enjoyment to adherence and psychological benefits from physical activity. **International Journal of Sport Psychology**.



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1. Definition of research problem	√	√			
2. Development of hypotheses or research questions (empirical studies)	√	√	√		
3. Development of theoretical propositions (theoretical work)	√	√		√	
4. Theoretical foundation / Literature review	√	√			
5. Definition of methodological procedures		√	√		
6. Data collection	√	√			
7. Statistical analysis	√		√		
8. Analysis and interpretation of data	√	√	√	√	
9. Critical revision of the manuscript		√		√	√
10. Manuscript writing	√	√			√
11. Other (please specify)					