Understanding Why Young Adults Do Not Donate Blood: The Perceived Barriers and Key Determinants of Motivation.

Consumer insight report by Lexi Gugger for MKG210 Consumer Behaviour

Contents

1. Introduction

Blood donation is of global concern as the demand for blood, a lifesaving healthcare resource (World Health Organisation 2016) is increasing while the levels of donated blood are declining (Martín-Santana, Reinares-Lara & Reinares-Lara 2018). Specifically in Australia, only one in thirty people donate, but one in three people will require blood in their lifetime (Pentecost, Arli & Thiele 2017). The clear and ongoing discrepancy between the supply and demand of blood could see an impending shortage and result in people dying (Solomon 2012). There is a critical need to sustainably increase donation levels by recruiting non-blood donors (Lemmens et al. 2005). The target market for this report is Australian non-blood donation young adults (NDYA) who have never donated blood. Generally, with good health, the NDYA demographic potentially carry the longest donation lifespan (Lemmens et al. 2005) hence are a highly appropriate market to target to increase long-term blood supply. The key characteristics of NDYA are: fearful of needles and blood, lack of previous blood donation behaviour, perceive blood donation as time-consuming and highly influenced by social pressures. Other characteristics of NDYA are outlined in Table 1. This report aims to understand why NDYA, an underrepresented demographic in research and recruitment, do not donate and the innovative opportunities available to overcome barriers and motivate NDYA to donate blood for the first time.

Table 1. Target Market Characteristics

Demographics	• Aged 18 – 30.
	• Inclusive of all genders classes, ethnicities and economic backgrounds.
	• Australian-based individuals.
Geographic	• Australia wide.
	• Have access to blood donation facilities.
Psychographics	• Are aware of blood donation, able and willing to donate (Misje, Bosnes & Heier 2008).
	• Do not donate due to the anxiety felt toward donating (Australian Red Cross Blood Service 2018) including fear of needles and blood (Solomon 2011; Martín-Santana, Reinares-Lara & Reinares-Lara 2017) and believe donation is time-consuming (Lemmens et al. 2005).
	• Strongly influenced by family, friends and significant others (Robinson et al. 2008).
	• The opinions of others are perceived as of high importance (Glynn et al. 2001).
	• Heavy users of social media (Sensis 2017).
Behaviour Aspects	• Have not and currently do not donate blood.
	• Heavily active online (Sensis 2017).
	• Non- drug users.
Other	Weigh above minimum weight requirement of 50kg and meet other blood donation eligibility health and personal activity requirements (Australian Red Cross Blood Service (ARCBS) 2018).

2. Literature Review & Applied Framework

2.1 Literature Review of Blood Donation Behaviour

Table 2 outlines the key findings from the literature reviews of scholarly articles and reputable sources discussing blood donation behaviour.

Table 2. A Literature Review of Blood Donation Behaviour

Source	Target Market	Topic	Theories, Frameworks and methodology	Summary of findings and insights
ARCBS 2018	Australia.	Blood donation.	No theory stated.	Anxiety sees many first-time donors not follow through with a scheduled blood appointment.
Bednall et al. 2013	Adult blood donors and non-blood donors. Australia.	An investigation into the significant antecedents related to blood donation behaviour and intentions.	One third of sample were aged 25 and under. Theory of Planned Behaviour. Self-administered questionnaire.	Intentions are the strongest predictor of behaviour. Overall anxiety felt toward donating had a negative impact on intentions and behaviour.
Glynn et al. 2001	Adult blood donors and non-blood donors. The United States of America.	An exploration of blood donor motivation to improve the effectiveness of donor recruitment and retention programs.	Age unspecified. Questionnaire.	Overall the motivating factors were altruism and awareness of the need for blood. Family-peer influences have large effects on non-donor's intention to donate.
Godin et al. 2005	Adult blood donors and non-blood donors. Canada.	Examination of principal determinants of intentions to donate blood.	Ages 18 – 70, random sample. Prominent social cognitive theories. Self-administered questionnaire.	Overall perceived barriers are the perception of control; facilitation factors; and anticipated regret. Identified perceived control as a barrier and key behavioural determinate.
Lemmens et al. 2005	Registered adult blood donors and non-blood donors. The Netherlands.	Investigation of cognitive determinants of willingness to donate blood.	Ages 17 – 44. An Extension on the Theory of Planned Behaviour.	A continuous need for new blood donors. The need for blood is increasing and the supply of blood is declining. Identified as the strongest predictor of behaviour was the attitude. Identified key predictors of behaviour were self-efficacy, attitude and subjective norms.

				Low intending non-donors, perceived donating as <u>painful</u>, costly and not rewarding. Overall perceived knowledge and knowledge levels of blood donations were low. <u>Fear of blood and/or needles</u> were high. High intenders await <u>greater approval</u> from family and friends for donating.
Martín-Santana, Reinares-Lara & Reinares-Lara 2017	General population. Radio listeners. Spain.	Design and confirm a model of advertising effectiveness to explain blood donation and donation inhibitors.	Aged 18 – 55. Self-administered questionnaire.	Perceived barriers and negative influences on behaviour - <u>Schedule incompatibility</u>, <u>lack of time</u>, and fear of <u>transfusion-transmitted infections</u> and <u>needles and/or blood.</u>
McVittie, Harris & Tiliopoulos 2007	Adult blood donors and non-blood donors. The United Kingdom.	An exploration of non-donor's intentions and barriers toward donating blood.	Ages 18 – 60. Grounded theory, questionnaires and semi-structured interviews.	The identified barrier for non-donors – <u>anxiety</u> and <u>practical difficulty</u>.
Misje, Bosnes & Heier 2007	Young people (18-29). Adult blood donors and non-blood donors. Norway.	An investigation into recruiting and retaining young people as voluntary donors and reasons for pre-donation deferral.	Ages 18 – 70. $\chi2$ -tests, survival analysis (Kaplan–Meier) and SPSS release 14·0. Data collection and telephone survey.	Aged 30 and over individuals were more often <u>declined for health-related reasons</u>. Generally, <u>young people</u> are <u>able</u> and <u>willing to donate</u> and the intention of becoming a blood donor is high which <u>decreases significantly with age</u>. Identified reasons for not donating: <u>lack of personal request (predominate)</u>, <u>fear of pain</u> and <u>being too busy to donate</u>.
Pentecost, Arli & Thiele 2016	Adult blood donors and non-blood donors. Australia.	Investigation of perceived barriers to blood donating.	Average age 35. Self-Determination Theory.	<u>Pressure</u> to donate has a <u>negative influence</u> on donation intentions.

Reid & Wood 2007	Eligible adult non-blood donors.\n\nAustralia.	Exploration of barriers and intention toward donate blood.	Ages 18 – 70.\n\nTheory of Planned Behaviour.\n\nSelf-administered questionnaire.	Identified barriers – <u>fear</u>, <u>lack of time</u> and <u>distance</u> to the donation station.\n\nKey <u>predictors of behaviour</u> are <u>perceived control</u> and <u>subjective norms.</u>\n\nLower intenders had higher <u>fear toward needles</u> and believed donating is <u>painful</u> and <u>time-consuming.</u>
Robinson et al. 2008	Adult blood donors and non-blood donors.\n\nAustralia.	An investigation into the intentions to donate blood among non-donors.	Median age 35 – 44.\n\nAn extended Theory of Planned Behaviour.	Sufficient blood and blood products supply are a constant need within Australia and internationally.\n\nIdentified influences on intentions to donate: <u>attitudes</u>, <u>subjective norms</u>, <u>moral norms</u> and <u>anxiety toward donating</u>.
Solomon 2011	Young adults.\n\nAdult blood donors and non-blood donors.\n\nThe United States of America.	An investigation into whether young potential blood donors have potential to positively contribute to the blood supply shortage.	Ages 17 – 25.\n\nAverage age 19.3 years old.\n\nQuestionnaire.	<u>Fear of needles</u> is the strongest barrier.\n\nNon-donors identified reasons not to donate: <u>don't think blood is needed,</u> <u>afraid of contracting HIV/AIDS,</u> <u>lack of personal request</u> and <u>too time-consuming.</u>
World Health Organization 2016	180 countries.	A report on the global status of blood safety and availability.	88.2 million whole blood donations.\n\nBiennial surveys.	Blood safety and availability is a critical and <u>on-going global issue</u>.

2.2 Literature Review Insights

The literature review exposed that extensive and comprehensive research has been undertaken on blood donation. Both past and contemporary literature acknowledge blood donation as a serious and on-going issue (for example World Health Organisation 2017; Lemmens et al. 2005). Predominantly applying the Theory of Planned Behaviour (TPB) and extended models of the TPB, overall the research (for example Godin et al. 2005; Misje, Bosnes & Heier 2007) was conducted on mixed aged samples of non-blood donors and existing blood donors, highlighting the underrepresentation and focus placed upon NDYA within blood donation research.

Specific to this report, four topical insights were exposed. Firstly, the majority of the literature (for example Solomon 2011; Bednall et al. 2013; Martín-Santana, Reinares-Lara & Reinares-Lara 2018) suggested the strongest determiners of blood donation behaviour amongst NDYA are antecedent emotions and attitudes. Secondly, the literature overall (for example ARCBS 2018; Solomon 2011) revealed the greatest barrier

perceived by NDYA to be the negative emotions of anxiety and fear surrounding needles, blood and pain. Thirdly, extensive research (for example Solomon 2011; Reid & Wood 2007) highlighted that NDYA held negative attitudes toward donating blood, believing it to be time consuming and perceiving themselves to be lacking the time to donate. Fourthly, 'lack of personal request' (for example Misje, Bosnes & Heier 2007; Solomon 2011) was identified as a key reason why NDYA do not donate.

2.3 Definition and Application of the Model of Goal-Directed Behaviour

Section 2.2 exposed the strongest predictors of NDYA blood donation behaviour are negative emotions and attitudes. Therefore, an attitudinal framework is highly applicable in attempting to understand how negative emotions and attitudes can be altered to become more favourable. Past and contemporary research continues to extend on common theories previously applied to blood donation such as the TPB. The Model of Goal-Directed Behaviour (MGB) is an extended model of the TPB (Meng & Choi 2016) which has previously been linked to an absence of research surrounding blood donation, therefore is a highly applicable and innovative model that will allow for an effective analysis of NDYA blood donation behaviour. Recognised as a valuable framework, Perugini and Bagozzi's (2001) MGB is thought to provide a more effective understanding of behaviour (Meng & Choi 2016) due to the inclusion of affective and habitual variables, for example, desire. Desire is assumed to be a key motivator of intentions and consequent behaviour and is considered as a holistic reflection of the model's antecedent dimensions, such as attitude (Perugini & Bagozzi 2001).

The most relevant dimensions to this report are: attitude towards the act of buying, negative anticipated emotion and subjective norms. Table 3 provides further defines each MGB dimension and its relevance to NDYA and blood donation. One of the key drivers of behaviour for NDYA (Table 2) is attitude and currently the attitude that NDYA have toward blood donation is negative, believing the donation process is time-consuming and perceive themselves to be lacking the time to donate. When individuals possess positive attitudes towards a specific behaviour, the more likely the individuals are to perform that behaviour (Ajzen 1991), therefore it can be assumed the more negative an attitude is, the less likely the action will be undertaken. It can be expected that changing the pre-existing negative attitudes NDYA have towards blood donation to positive will increase the desire to perform the donation behaviour and positively influence intentions in general.

Positive and negative anticipated emotions are considered predictors of desire and the motives behind participation in a positive situation or avoidance of a negative situation (Perugini & Bagozzi 2001). Anxiety and fear of needles, blood and pain were identified as the greatest perceived barrier (Table 2) and cause of the negative anticipated emotions felt by NDYA. Anxiety causes many first-time donors to cancel a scheduled blood appointment, (ARCBS 2018) demonstrating the influence negative-anticipating emotions have on an individual's desire, intentions and behaviour. Eliminating the negative-anticipating emotions experienced by NDYA will have a positive effect on the desire to donate blood, therefore NDYA will be more likely to donate.

NDYA are influenced heavily by family and friends and hold other's opinions in high importance (Table 1), therefore are likely to conform to the opinions of others when undertaking specific behaviours (Meng & Choi 2016). Section 2.1 exposed that there is a lack of social pressure to complete the blood donation behaviour, which has been expressed as 'a lack of personal request'. The opportunity is present to create or stimulate positive subjective norms that can increase NDYA's desire to donate for the first time and positively influence intentions and behaviours (Perugini & Bagozzi 2001).

Table 3. Model of Goal-Directed Behaviour (MGB): Definition and Relevance to NDYA and Blood Donation.

Aspect	Definition	Application to the Target Market and Topic
Attitude toward the act of buying	The attitude one has towards a behaviour and the degree to which an individual assesses the behaviour to be favourable or unfavourable (Ajzen 1991).	The research in Table 2 highlighted the key attitude held by NDYA is that blood donation process is time-consuming and consequently perceive themselves to be lacking the time to donate.
Positive anticipated emotions	The positive anticipated emotions the individual has towards the behaviour (Bagozzi, Baumgartner & Pieters 1998).	Table 2 identified that a positive anticipated emotion felt by NDYA is that donating blood is valuable and important.
Negative anticipated emotions	The negative anticipated emotions individual has towards the behaviour (Bagozzi, Baumgartner & Pieters 1998).	The literature review (Table 2) identified anxiety and fear of, for example, needles, as the key negative anticipated emotions felt toward donating blood.
Subjective Norms	The perceived social expectations and pressure to perform a behaviour or goal (Ajzen 1991).	Research in Table 2 shows that NDYA is strongly influenced by family, friends and peers which suggests that subjective norms could have a positive effect on NDYA intention to donate.
Desire	Desire is a cognitive state where an individual is stimulated to complete a goal or behaviour (Perugini & Bagozzi 2004).	Research (Table 2) exposed that NDYA lacked the desire to donate due to the antecedent variables and perceived barriers.
Perceived behavioural control	The level of control that an individual perceives to have over the situation and outcomes as well as the resources accessible to the individual (Ajzen 1991).	Table 2 exposed the NDYA lacked perceived behavioural control over aspects regarding time schedule and donation location.
Frequency of past Behaviour	The number of times a behaviour has been completed (Perugini & Bagozzi 2001).	NDYA do not have a blood donation career, therefore, have never donated (Table 1).
Recency of past behaviour	How long ago the last act of a particular behaviour was performed (Perugini & Bagozzi 2001).	NDYA do not have a blood donation career, therefore, have never donated (Table 1).
Intentions	The intent and the degree of effort one is willing to put toward performing a behaviour or goal (Ajzen 1991).	The literature review (Table 2) identified that despite there being some level of intention to donate present amongst NDYA the behaviour is not being performed due to perceived barriers such as lack of personal request, exposed in Table 2.
Behaviour / Goal	The act of completing a specific behaviour or goal (Perugini & Bagozzi 2001).	NDYA do not have a blood donation career donated (Table 1) and the behaviour of donating blood is not completed due to perceived barriers such as perceived as too time-consuming, exposed in Table 2.

3.0 Marketing Strategies

3.1 Marketing Strategy 1 - 'In the time it took you to do this…'

Strategy 1 relates to the price P of the marketing mix, specifically the price of time and directly relates to MGB aspect of attitude. NDYA have negative attitudes toward donating blood (Section 2.2) which are: believing blood donation is time-consuming and perceiving themselves to be lacking the time to donate. This strategy aims to change NDYA's negative attitudes to more favourable positive attitudes that will increase the desire to donate, positively influence intentions and consequently see NDYA donate blood for the first time. Using comparative marketing the social media advertisement campaign series would show a series of stressful daily situations that take up an hour to do such as a procrastinating University student watching cat videos. A tagline suggestion is: 'In the time it would have taken you to do this… you could have been here, relaxing, having refreshments, playing video-games and saving someone's life.' This strategy is effective as is exposes that the blood donation process is not as time-consuming as perceived and provides much value in exchange for their time. The comparison makes NDYA question the price they place on time and where and how they spend time. This strategy's advantage is that it cost-effectively reaches and appeals to NDYA using social media, video and humour (Sensis 2017). The key disadvantages are that filming is up-front costly and the message could be misinterpreted by the noise of humour. Table 4 further outlines the advantages and disadvantages of strategy 1.

Table 4. Advantages and Disadvantages of Strategy 1

Advantages	- Elevates the misconception of blood donation being time-consuming and provides a list of benefits gained from the temporal exchange in a visual representation. - Clear comparison of undesirable state and the desirable state, to put time need to donate into perspective. - Effective and cost-effective to target NDYA who are on social media all the time - (Sensis 2017). - Uses slightly exaggerated yet relatable scenarios to elicit positive emotions. - Generally easy to manage.
Disadvantages	- Filming is up-front costly and perhaps too costly to the ARCBS limited budget. - The video might not get enough attention and become lost on social media. - Not everyone might perceive the comparison of the undesirable state and the desirable state as such and the message could be wrongly interpreted. - The value and benefits of blood donation might not be great enough to shift attitudes.

3.2 Marketing Strategy 2 – 'Take my word for it'

Strategy 2 relates to the promotion P of the marketing mix and directly relates to MGB aspect of negative anticipated emotions. This strategy aims to change or lessen the degree of anxiety and fear that NDYA feel toward donating blood (Section 2.2). Promotion on social media will drive the target market to an interactive page on the ARCBS website. Once there, individuals can select a set question regarding needles, blood and pain and positive answers will be given by a videoed response from a selection of physical avatars of influential individuals such sports stars. This strategy is effective as word of mouth marketing is highly trusted form of information (Castronovo & Huang 2012) and will appeal to NDYA by using relevant well-known individuals. Receiving positive reinforcement and validation, that the needles, blood and pain are minimal and manageable will decrease and transform the influence of the negative attitudes and the feeling of wanting to avoid a negative situation into positive attitudes, and create a wanting to take part in a positive situation

(Perugini & Bagozzi 2001). The key advantage of strategy 2 is it allows NDYA to personalise the interactive experience by choosing the most relevant influential individual and questions. The key disadvantage is that message might not be convincing enough to significantly decrease fear and anxiety. Table 5 further outlines the advantages and disadvantages of strategy 2.

Table 5. Advantages and Disadvantages of Strategy 2

Advantages	- Creatively, engagingly and interactively allows NDYA to personalise the experience through choosing the desired and most relevant influential individual as well as the questions that are most relevant to them. - More potent than just written testimonial due to the visual of a recognised person and the physical spoken audio answer. - Effective and cost-effective to target NDYA who are highly active on social media and the internet (Sensis 2017). - Content is multipurpose, recyclable, highly potent and has a long-life span. - Highly cost effect if influential individuals chose to donate the time and endorse the campaign - WOM highly influential (Castronovo & Huang 2012), especially if using influential individuals. - Easy to create, manage and control.
Disadvantages	- The message might not be strong enough or convincing enough to significantly decrease fear and anxiety. - That no well-known influential individuals will wish to take part, or will expect compensation if they do. - The influential individuals are not relevant enough to NDYA to have a strong and lasting impact. - That NDYA lack the motivation to go from social media to the website.

3.3 Marketing Strategy 3 – 'Take a mate to donate'

Strategy 3 relates to the promotion P of the marketing mix and directly relates to MGB aspect of subjective norms. Strategy 3 leverages off the strong impact subjective norms have on NDYA's behaviour and the exposed lack of social pressure expressed as 'a lack of personal request' to donate blood (Section 2.1). 'Take a mate to donate', is a viral social media campaign challenging young active donors (YAD) such as University students, to take a non-donating mate to donate blood, contributing to a national recruitment target. Once they have donated, a photo will be taken and shared on social media using a campaign specific hashtag, furthering the campaign's viral intensity. By targeting YAD to recruit NDYA amongst family, friends and co-workers, a social pressure is created which will motivate NDYA to donate for the first time as NDYA are likely to conform to the opinions of others (Meng & Choi 2016). This strategy is effective as it will increase donation intentions and behaviours as NDYA would feel the approval of significant others and the satisfaction of being personally requested by an active donor (Lemmens et al. 2008). The strategy's key advantage is it creates a social pressure through its challenge aspect and directly counteracts the 'lack of personal request' barrier. The key disadvantage is the significant lack of control marketers have over behavioural outcomes, making this strategy quite risky. Table 6 further outlines the advantages and disadvantages of strategy 3.

Table 6. Advantages and Disadvantages of Strategy 2

Advantages	• A challenge can height the levels of subjective norms. • Could potentially stimulate active or previous donors to donate again or more frequently. • Personal request counteracting the reason or lack of (Table 2). • Effective and cost-effective to target NDYA who are highly active on social media and the internet (Sensis 2017). • If social influences approve of a behaviour, then the NDYA is likely to complete the behaviour.
Disadvantages	• Potentially inconvenient for YAD to take part. • Potentially too much to ask of active donors. • Active donors could be too shy to take part. • The risk of embarrassment if the NDYA taken along is deferred. • Significant lack of control marketers have over behavioural outcomes.

4. Recommendation

The recommended strategy to most successfully achieve this reports objective of motivating NDYA to donate blood for the first time, is the highly relevant and effective strategy 2. In contrast to strategy 1 and 3, strategy 2 is the most cost-effective, allows for the greatest amount of control and carries the least risk. It also produces content that is highly potent and long-standing. Strategy 1 is too costly to ARCBS's limited budget and carries a high risk of message misinterpretation while strategy 3 had strong advantages, but the significant lack of control over behavioural outcomes made it too risky. Table 7 further outlines the advantages and disadvantages of Strategy 1, Strategy 2 and Strategy 3.

Table 7. The advantages and Disadvantages of Strategy 1, Strategy 2 and Strategy 3.

Strategy	Advantages	Disadvantages
Strategy 1 'In the time it took you to do this…' **(Price, Attitudes)**	• Elevates the misconception of blood donation being time-consuming and provides a list of benefits gained from the temporal exchange in a visual representation. • Clear comparison of undesirable state and the desirable state, to put time need to donate into perspective. • Effective and cost-effective to target NDYA who are on social media all the time - (Sensis 2017). • Uses slightly exaggerated yet relatable scenarios to elicit positive emotions. • Generally easy to manage.	• Filming is costly. • The video might not get enough attention and become lost on social media. • Not everyone might perceive the comparison of the undesirable state and the desirable state as such and the message could be wrongly interpreted. • The value and benefits of blood donation might not be great enough to shift attitudes.
Strategy 2 'Take my word for it'	• Creatively, engagingly and interactively allows NDYA to personalise the experience through choosing the desired and most relevant influential individual as well as the questions that are most relevant to them.	• The message might not be strong enough or convincing enough to significantly decrease fear and anxiety.

(Promotion, Negative Emotions)	• More potent than just written testimonial due to the visual of a recognised person and the physical spoken audio answer. • Effective and cost-effective to target NDYA who are highly active on social media and the internet (Sensis 2017). • Highly cost effect if influential individuals chose to donate the time and endorse the campaign • WOM highly influential (Castronovo & Huang 2012), especially if using influential individuals. • Easy to create, manage and control.	• That no well-known influential individuals wish to take part or expect compensation if they do. • The influential individuals are not relevant enough to NDYA to have a strong and lasting impact. • That NDYA lack the motivation to go from social media to the website.
Strategy 3 'Take a mate to donate' **(Promotion, Subjective Norms)**	• A challenge can height the levels of subjective norms. • Could potentially stimulate active or previous donors to donate again or more frequently. • Personal request countering the reason of lack of (Table 2). • Effective and cost-effective to target NDYA who are highly active on social media and the internet (Sensis 2017). • If social influences approve of a behaviour, then the NDYA is likely to complete the behaviour.	• Potentially inconvenient for YAD to take part. • Potentially too much to ask of active donors. • Active donors could be too shy to take part. • The risk of embarrassment if the NDYA taken along is deferred. • Significant lack of control marketers has over behavioural outcomes.

Conclusion

The purpose of this report was to understand why NDYA do not donate and the innovative opportunities present to overcome barriers and motivate NDYA to donate blood for the first time. This objective has been achieved as NDYA were identified as an underrepresented demographic and highly appropriate target market. A critical analysis of the comprehensive literature review was performed, a rigorous and critical identification and application of the innovative MGDB occurred, and of three creative strategies that were developed and compared, Strategy 2 was put forward as the recommended strategy for this report.

Reference list:

Ajzen, I 1991, 'The theory of planned behaviour', *Organizational behavior and human decision processes*, vol. 50, no. 2, pp. 179-211, viewed 25 April 2018, https://doi.org/10.1016/0749-5978(91)90020-T

Bagozzi, R, Baumgartner, H & Pieters, R 1998, 'Goal-directed Emotions, Cognition and Emotion', *Cognition & Emotion*, vol. 12, no. 1, pp. 1-26, doi:10.1080/026999398379754

Bednall, TC, Bove, LL, Cheetham, A & Murray, AL 2013, 'A systematic review and meta-analysis of antecedents of blood donation behavior and intentions', *Social Science & Medicine*, vol. 96, p. 86-94, viewed 25 April 2018, http://dx.doi.org/10.1016/j.socscimed.2013.07.022

Boenigk, S, Leipnitz, S & Scherhag, C 2011, 'Altruistic values, satisfaction and loyalty among first-time blood donors,' *International Journal of Nonprofit and Voluntary Sector Marketing*, vol. 16, no. 4, pp. 356-370, doi:10.1002/nvsm.433

Castronovo, C & Huang, L 2012, 'Social media in an alternative marketing communication model', *Journal of Marketing Development and Competitiveness*, vol. 6, no. 1, pp. 117-134, viewed 25 April 2018, https://search-proquest-com.ezproxy.usc.edu.au/docview/1019047580?accountid=28745

'Global status report on blood safety and availability' 2016, World Health Organization, Geneva, viewed 25 April 2018, http://apps.who.int/iris/bitstream/handle/10665/254987/9789241565431-eng.pdf;jsessionid=F6BCA9D9BC2B6350ADD0B94B2E82D72D?sequence=1

Glynn, SA, Kleinman, SH, Schreiber, GB, Zuck, T, McCombs, S, Bethel, J, Garratty, G & Williams, AE 2002, 'Motivations to donate blood: demographic comparisons', *Transfusion*, vol. 42, no. 2, pp. 216-225, doi:10.1046/j.1537-2995.2002.00008.x

Godin, G, Sheeran, P, Conner, M, Germain, M, Blondeau, D, Gagne´, C, Beaulieu, D & Naccache, H 2005, 'Factors explaining the intention to give blood among the general population', *Vox Sanguinis*, vol. 89, no. 3, pp. 140-149, doi:10.1111/j.1423-0410.2005.00674.x

Lemmens, KPH, Abraham, C, Hoekstra, T, Ruiter, RAC, De Kort, WLAM, Brug, J & Schaalma, HP 2005, 'Why don't young people volunteer to give blood? An investigation of the correlates of donation intentions among young nondonors', *Transfusion,* vol. 45, no. 6, pp. 945-955, doi:10.1111/j.1537-2995.2005.04379.x

Livitz, IE, Fox, KR, Himawan, LK & France, CR 2017, 'A brief motivational interview promotes internal motivation to donate blood among young adults with and without a prior donation history', *Transfusion*, vol. 57, no. 6, pp. 1527-1535, doi:10.1111/trf.14073

Martín-Santana, JD, Reinares-Lara, E & Reinares-Lara, P 2018, 'Using Radio Advertising to Promote Blood Donation', *Journal of Nonprofit & Public Sector Marketing*, vol. 30, no.1, pp. 52-73, viewed 25 April 2018, https://doi.org/10.1080/10495142.2017.1326340

McVittie, C, Harris, L & Tiliopoulos, N 2006, '"I intend to donate but …": Non-donors' views of blood donation in the UK', *Psychology, Health & Medicine*, vol. 11, no. 1, pp. 1-6, doi:10.1080/13548500500159455

Meng, B & Choi, K 2016, 'The role of authenticity in forming slow tourists' intentions: Developing an extended model of goal-directed behavior', *Tourism Management*, vol. 57, pp. 397-410, doi:10.1016/j.tourman.2016.07.003

Misje, AH, Bosnes, V & Heier, HE 2008, 'Recruiting and retaining young people as voluntary blood donors', *Vox Sanguinis*, vol. 94, no. 2, pp. 119-124, doi:10.1111/j.1423-0410.2007.01004.x

Pentecost, R, Arli, D &Thiele, S 2017, 'It's my choice! Investigating barriers to pro-social blood donating behaviour,' *Marketing Intelligence & Planning*, vol. 35, no. 2, pp. 243-258, doi: 10.1108/MIP-03-2016-0055

Perugini, M & Bagozzi, RP 2001, 'The role of desires and anticipated emotions in goal-directed behaviours: Broadening and deepening the theory of planned behaviour', *British Journal of Social Psychology*, vol. 40, no.1, pp. 79-98, doi:10.1348/014466601164704

Reid, M & Wood, A 2008, 'An investigation into blood donation intentions among non-donors', *International Journal of Nonprofit and Voluntary Sector Marketing*, vol. 13, no. 1, pp. 31-43, doi:10.1002/nvsm.296

Rivis, A & Sheeran, P 2003, 'Descriptive norms as an additional predictor in the theory of planned behaviour: A meta-analysis', *Current Psychology,* vol. 22, no. 3, pp. 218-233, viewed 25 April 2018, http://dx.doi.org.ezproxy.usc.edu.au:2048/10.1007/s12144-003-1018-2

Robinson, NG, Masser, BM, White, KM, Hyde, MK & Terry, DJ 2008, 'Predicting intentions to donate blood among nondonors in Australia: an extended theory of planned behavior', *Transfusion*, vol. 48, no. 1, pp. 2559-2567, doi: 10.1111/j.1537-2995.2008.01904.x

Sensis 2017, *Sensis Social Media Report: Chapter 1 Australians and social media*, viewed 1 May 2018, https://www.sensis.com.au/asset/PDFdirectory/Sensis_Social_Media_Report_2017-Chapter-1.pdf

Solomon, G 2012, 'Segmentation and communications to solve the blood shortage: An exploration of the problem with recommendations', *Voluntas: international journal of voluntary and non-profit organizations*, vol. 23, no. 2, pp. 415-433, doi:10.1007/s11266-010-9179-8