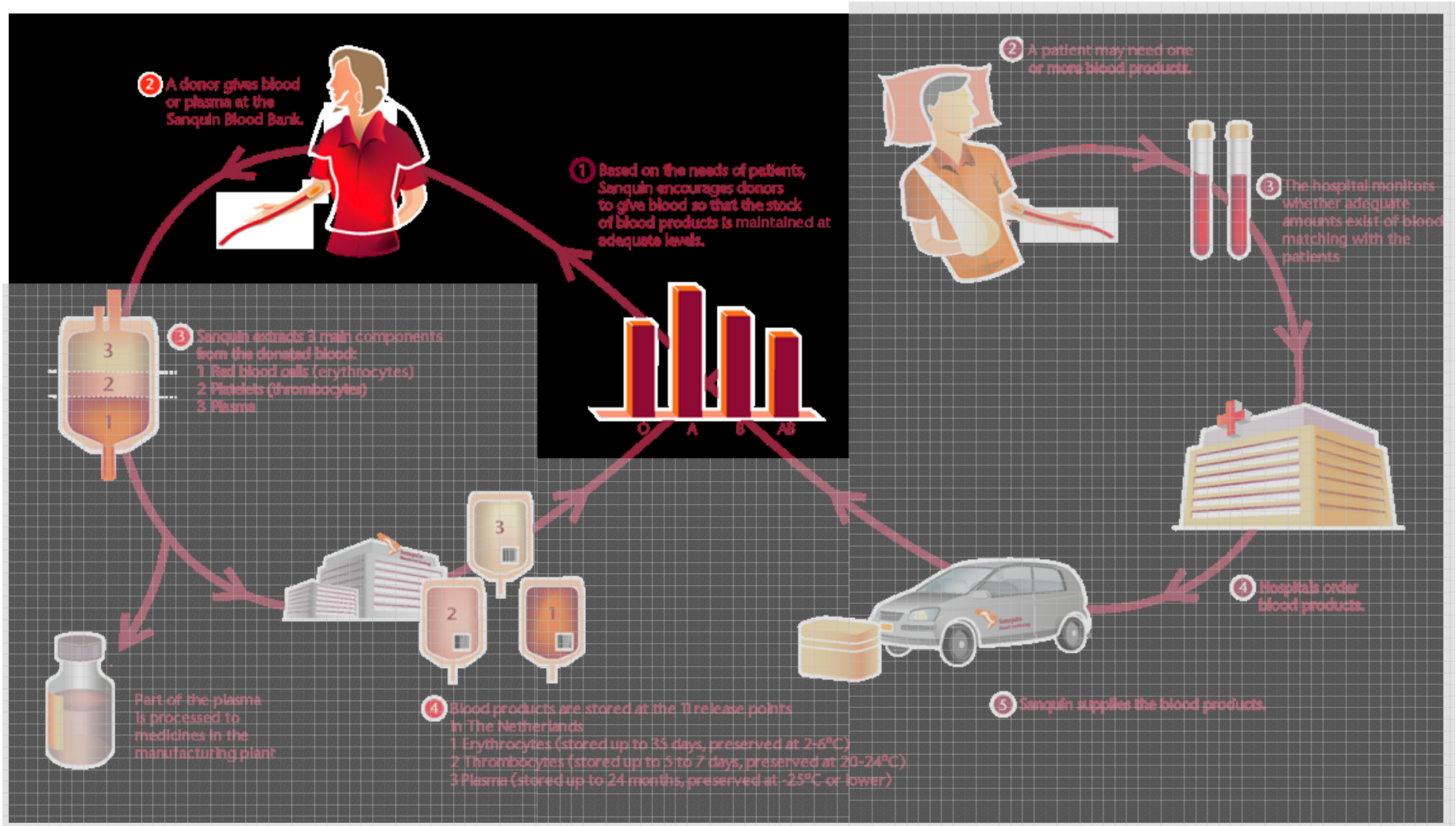
Psychology behind blood donation

Ingrid Veldhuizen

Sanquin Research, unit Donorstudies

Sanquin blood supply



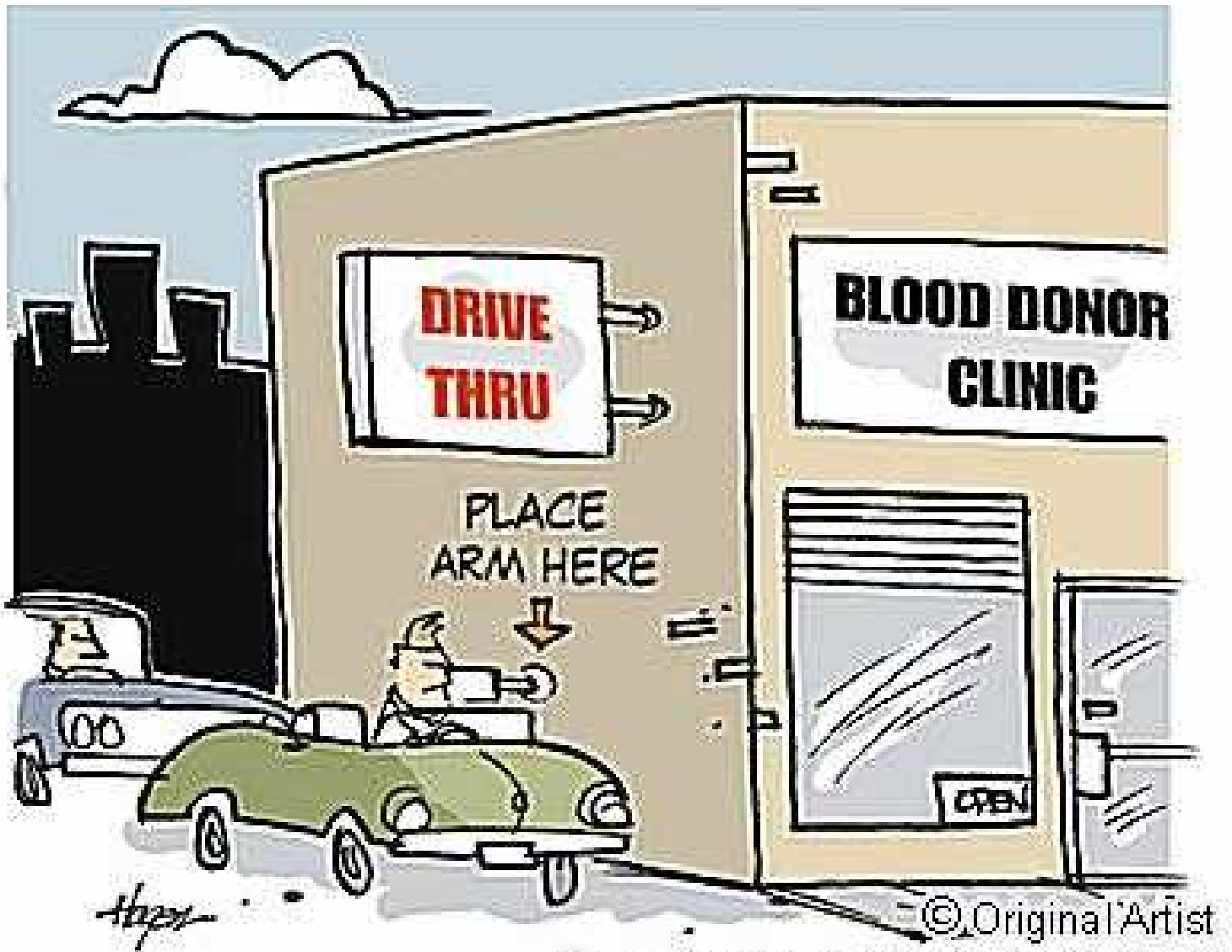
Donating blood……

Following the corporate presentation:

- ‘Based on the needs of patients Sanquin encourages donors to give blood so that he stock of blood products is maintained at adequate levels’

- ‘A donor gives blood or plasma at the Sanquin Blood Bank’

‘Easier said than done…..’


DRIVE THRU
BLOOD DONOR CLINIC
PLACE ARM HERE
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Background

Becoming a donor is a choice

Every donation is a choice

For donor management it is important to know:

Which factors influence these choices?

Why donate?

- **Donating is form of pro-social behaviour**
- **Free gift**

To donate is ‘to give’, however…..

‘no donor can be characterized by complete, disinterested altruism’

Titmuss, Lancet 1971

Why donate: Altruism?

Altruism mentioned as primary reason by donors themselves

However:

- Altruism in relation to donating blood is **not distinctive** between donors and non-donors
- Altruism **not related to donation frequency**

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Why donate: Egoism?

- Reciprocal ability, ‘helping me, helping you’

(Hupfer, Transfusion 2006)

- Health screen

(Glynn, Transfusion 2003; Ringwald Vox Sang 2007)

- Feeling ‘like a hero’

(Oswalt, Transfusion 1977)

- Feeling proud

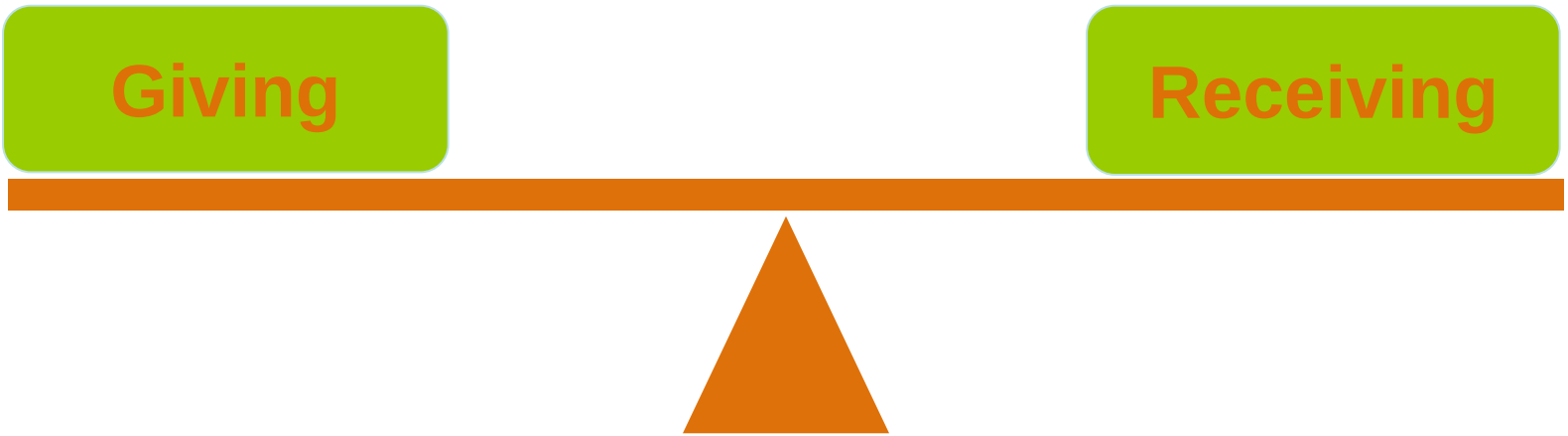
- Need for recognition and self-esteem

(Steele, Transfusion 2008; Piliavin, Transfusion 1990)

Why donate: Benevolence

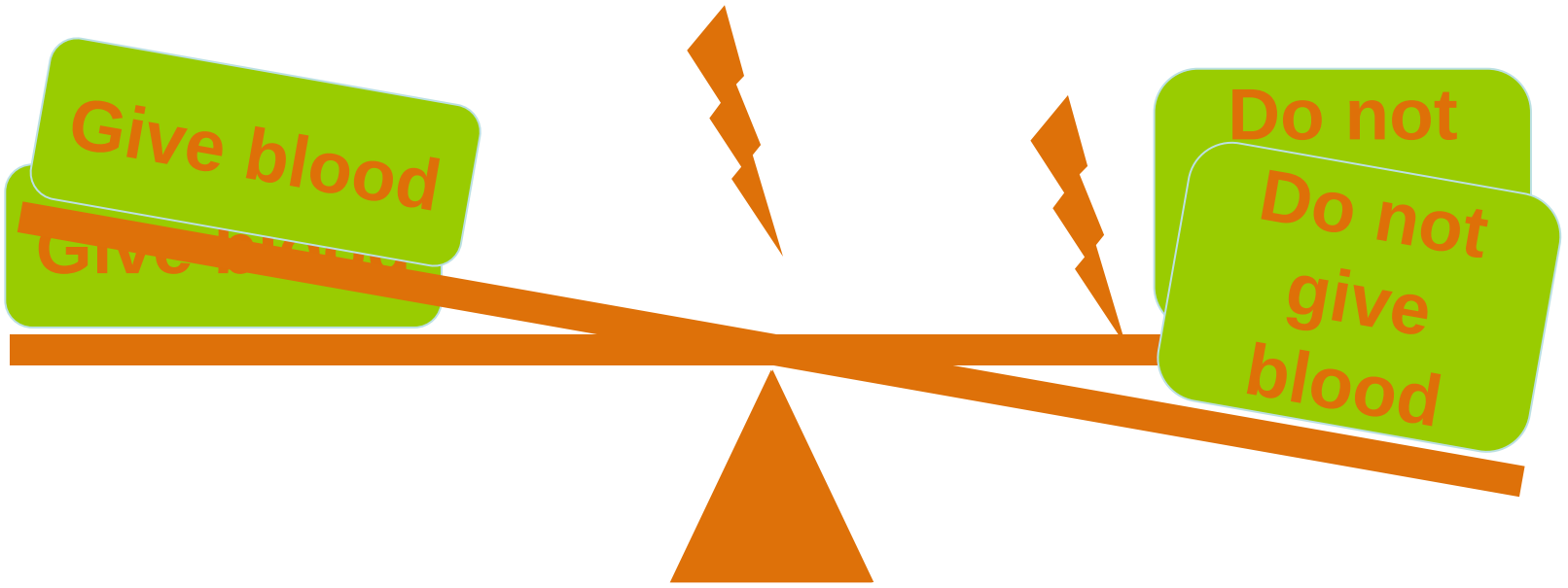
Donating blood is *not* pure altruism
Both *donor and recipient* profit (Ferguson et al., Health Psychology 2008)

Critical balance: ‘giving’ and ‘receiving’



Factors influencing the balance

- Negative donation experiences (physical, psychological)
- Temporary deferral
- Organisational factors



Negative donation experiences

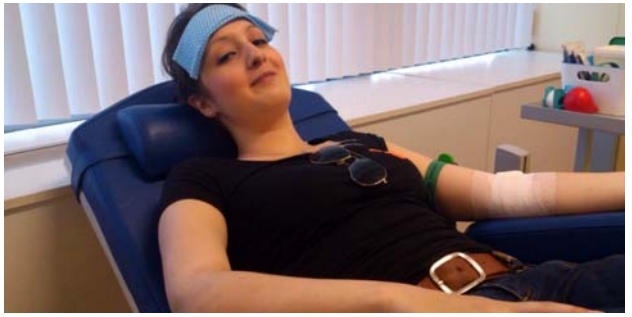
Physical adverse reactions

- Vasovagal reactions: - sweating, nausea, dizziness, pallor, hypotension, and syncope
  - Incidence rate ≤ 1%

- Needle reactions: - bruises, stiffness, hematomas, sore arm
  - Incidence rate ≤ 30%

Known risk factors

young age
first time donor status
low blood volume
female sex



(Veldhuizen et al, Transfusion 2012, Van Dongen et al, Transfusion 2012)

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Physical adverse reactions in experienced donors

- ***Does an adverse reaction increase stopping risk in experienced donors?***
- ***Sex differences?***

Methods

- N = 12,051 whole blood donors
- Reporting of adverse reaction? Yes / no
- Reaction type: vasovagal / needle / other
- Stopped within 2 years? Yes / no
- Separate analyses for men and women

Physical adverse reactions in experienced donors

	Needle reaction OR (95% CI)
Sex	
Women	1
Men	0.34 (0.28-0.43)

Physical adverse reactions in experienced donors

	Needle reaction OR (95% CI)	Vasovagal reaction OR (95% CI)
Sex		
Women	1	1
Men	0.34 (0.28-0.43)	0.26 (0.19-0.36)

Physical adverse reactions in experienced donors

	Needle reaction OR (95% CI)	Vasovagal reaction OR (95% CI)
Sex		
Women	1	1
Men	0.34 (0.28-0.43)	0.26 (0.19-0.36)
Age (per year)	0.95 (0.94-0.95)	0.94 (0.93-0.95)

- **Men lower odds on reporting NR and VVR**
- **Increasing age, lower odds on NR and VVR**

Adverse reactions and stopping risk

		OR (85% CI)
Women	**Needle**	1.35 (1.07-1.70)
	VasoVagal	**1.78 (1.35-2.35)**

Adverse reactions and stopping risk

		OR (85% CI)
Women	**Needle**	1.35 (1.07-1.70)
	VasoVagal	**1.78 (1.35-2.35)**
Men	**Needle**	1.27 (0.74-2.10)
	VasoVagal	**3.95 (2.19-7.11)**

Physical adverse reactions in experienced donors

To summarize

- Vasovagal reactions negatively affect stopping risk
- Also in experienced donors!
- Strong sex differences:
  - Women experience more adverse reactions than men
  - Stopping risk in men twice as high as in women

Implications

- Coping with adverse reactions also important for experienced donors
- Men cope differently than women?

Factors influencing the balance

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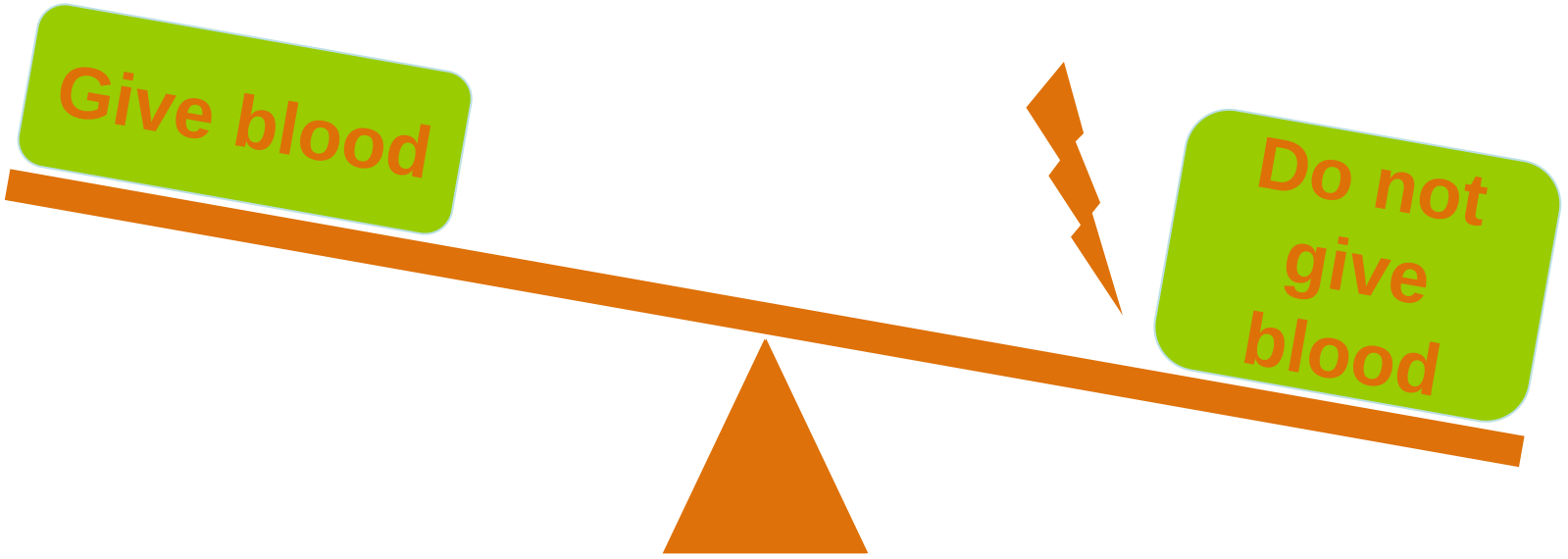
- Temporary deferral
- Organisational factors



Negative donation experiences

Psychological donation reactions

- fear of needle, or even blood
- fear for a negative reaction
- not ‘feeling up to it’
- feeling tense
- watching other donors faint

(Veldhuizen, Transfusion 2012; Hupfer, Transfusion 2006; Nilsson-Sojka, Vox Sang 2003; France, Transfusion 2007)

Temporary deferrals

- ‘Being deferred’ more important than deferral type
- Even short-term deferrals are detrimental

(Piliavin, Transfusion 1987; Zou, Transfusion 2008, Custer, Transfusion 2007)

Organisational factors

- Staff attitude
- Waiting times
- Parking space
- Invitation policy
- Pressure to donate

(Wevers et al, 2013, Nguyen, Transfusion 2008; Schlumpf, Transfusion, 2007; Schreiber, Transfusion 2006; France, Transfus Apher Sci 2008)

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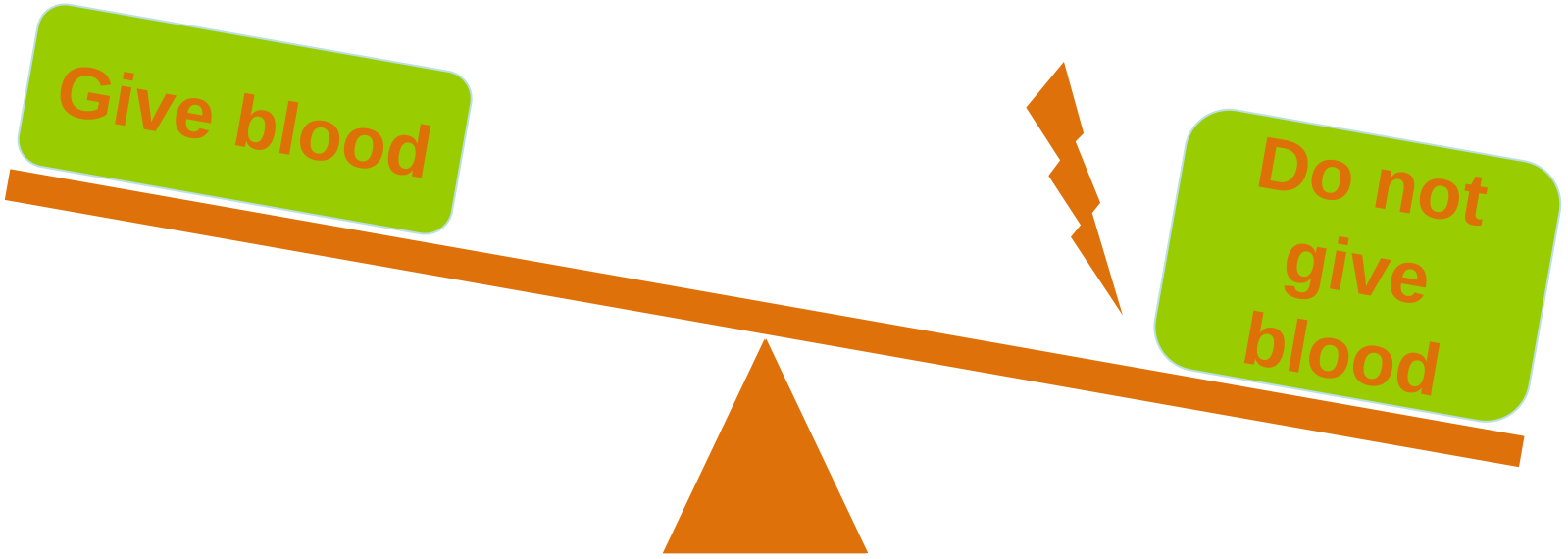

Donation behaviour: Theory based research

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Attitude — ‘Donating blood is useful’

Self-efficacy — ‘I feel capable to donate’

Moral norm — ‘I feel responsible to donate’

Subjective norm — ‘Others important to me think I should donate’

Intention → **Behaviour**

Are the same factors important in each career stage?

For all donors, irrespective of the number of life-time donations, three factors predict intention to donate again:

- For men and women:

  self-efficacy: ‘Yes I can’
  moral norm: ‘I feel responsible to donate’

- Only for men:

  Subjective norm: ‘It matters to me how others feel about me donating’

Retention: what to do?

- Convenience: opening hours etc.
- Inform donors about side-effects
- Provide care and after-care

Especially with vasovagal reactions

- When deferred: **PROVIDE CARE**

Contact donor after deferral period

Use the need for recognition!

Also deferred donors need to be recognized

- Regardless of their number of donations made, all donors need to feel capable: provide reassurance
- Donors need to hear they are important. Especially for men the opinion of others is important

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Physical adverse reactions in experienced donors

Characteristic	Women	Men
Age (years)	42.5 (±12.8)	48.6 (±11.8)
Number of donations	17.7 (±15.5)	36.5 (±26.1)
Number stopped donors	1,285 (19.8%)	964 (17.4%)
Adverse reaction	808 (12.4%)	207 (3.7%)
Needle reaction (NR)	455 (7.0%)	113 (2.0%)
Vasovagal reaction (VVR)	269 (4.1%)	50 (0.9%)
Other	84 (1.3%)	44 (0.8%)