Supporting Cardiovascular Rehabilitation from your office

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Titulaire de la Chaire SRAP-IRSC sur les essais cliniques comportementaux novateurs axés sur les patients

Titulaire de la Chaire double FRQS en intelligence artificielle et santé numérique pour le changement des comportements de santé

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I acknowledge that Concordia University and the CIUSSS-NIM are located on unceded Indigenous lands. The Kanien'kehá:ka Nation is recognized as the custodians of the lands and waters on which Concordia University and the CIUSSS-NIM stands today. Tiohtiá:ke commonly known as Montreal is historically known as a gathering place for many First Nations. Today, it is home to a diverse population of Indigenous and other peoples. We respect the continued connections with the past, present, and future in our ongoing relationships with Indigenous and other peoples within the Montreal community

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McGill Refresher Course
29th November 2021, online

Disclosures

- **Industry Grants/Research Support**: GSK, Abbvie, Moderna
  - Investigator-initiated grants
  - Unrestricted educational grants
- **Consulting Fees**: Schering-Plough, Merck, Astra-Zenica, Sygesa, Respiplus
  - Behaviour change related CME
  - Statistical analyses
  - Vaccine hesitancy related CME
- **Speaker Fees**: Novartis, Jansen, Respiplus
  - Behaviour change, exercise, and asthma
  - Vaccine hesitancy related CME
- **Advisory Board**: Bayer, Sanofi, Lucilab
  - Development of medication adherence education and ehealth behaviour change programs
- Canadian Association of Cardiovascular Prevention and Rehabilitation (CACPR)
  - Former President
  - Current lead for the new Guidelines process

Objectives

As a result of attending this session, participants will be able to:

1. Describe the evidence around the use of telehealth and eHealth in the context of cardiovascular rehabilitation
2. Detail the key facilitators and barriers to the use of telehealth and eHealth intervention by patients
3. Recognize the core principles and skills of behaviour change counselling, and how you might be able to leverage them for better patient interactions

Some initial questions to get started

- What is cardiovascular rehabilitation?
- What is telehealth and ehealth?
- What is your perspective on these?
  - How comfortable are you with both of these?

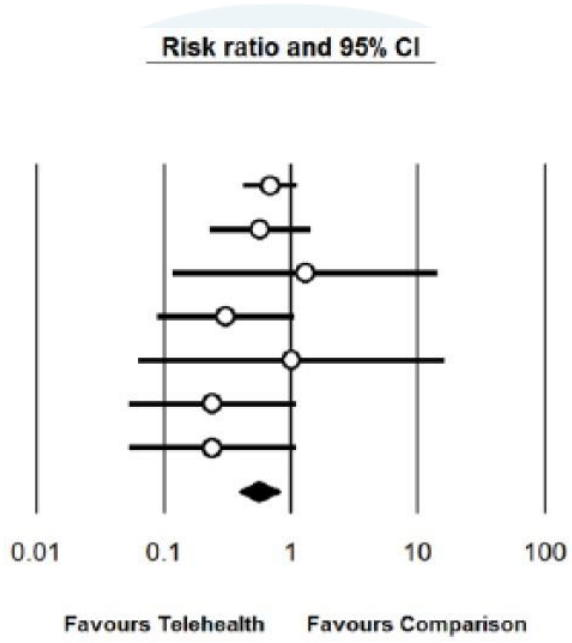
Does tele-CV rehab work?

Does tele-CV rehab work?

CV events

Model	Study name	Time point	Statistics for each study				Events / Total	
			Risk ratio	Lower limit	Upper limit	p-Value	Intervention	Control
vs. usual care	Hanssen et al 2009	18 months	0.69	0.43	1.09	0.11	26 / 156	32 / 132
vs. usual care	Lear et al 2015	16 months	0.57	0.24	1.40	0.22	6 / 38	11 / 40
vs. nothing	Neubeck et al 2017	24 months	1.30	0.12	14.07	0.83	2 / 103	1 / 67
adjunct to CR	Widmer et al 2017	6 months	0.31	0.09	1.04	0.06	3 / 37	9 / 34
usual care inc CR	Maddison et al 2014	6 months	1.01	0.06	15.91	0.99	1 / 85	1 / 86
adjunct to CR	MayerBerger et al 2012	36 months	0.24	0.05	1.08	0.06	2 / 53	8 / 51
usual care inc CR	Southard et al 2003	6 months	0.24	0.05	1.08	0.06	2 / 53	8 / 51
Fixed			0.56	0.39	0.81	0.00		

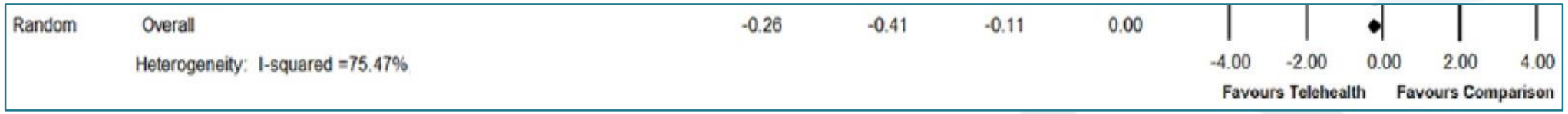
Heterogeneity: I-squared =0.00%



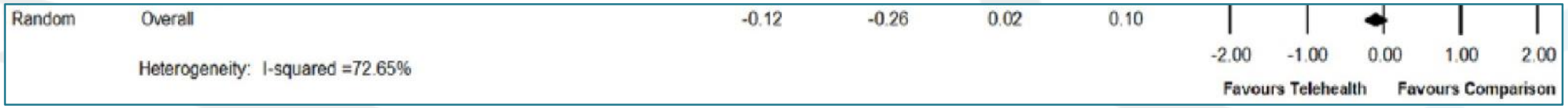
Jin et al. *Euro J CV Nurs*, 2019: 18; 260-271 https://doi.org/10.1177/1474515119826510

Does tele-CV rehab work?

Cholesterol



SBP

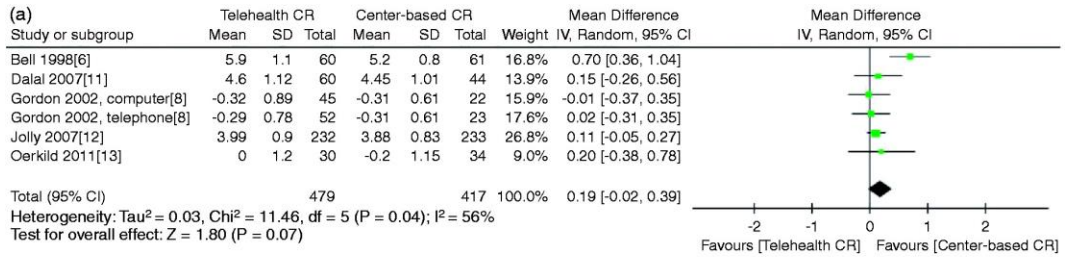


Smoking status

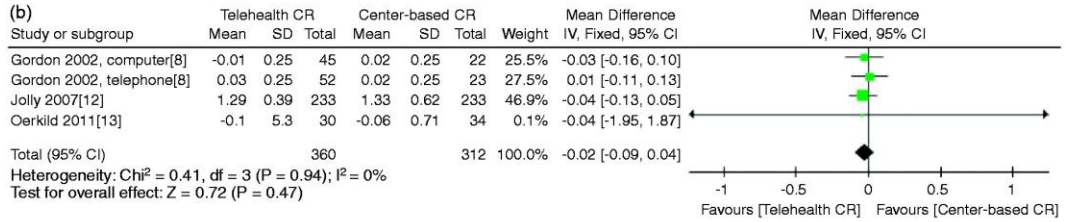
Jin et al. *Euro J CV Nurs*, 2019: 18; 260-271 https://doi.org/10.1177/1474515119826510

How does tele-CV rehab compare to in person rehab?

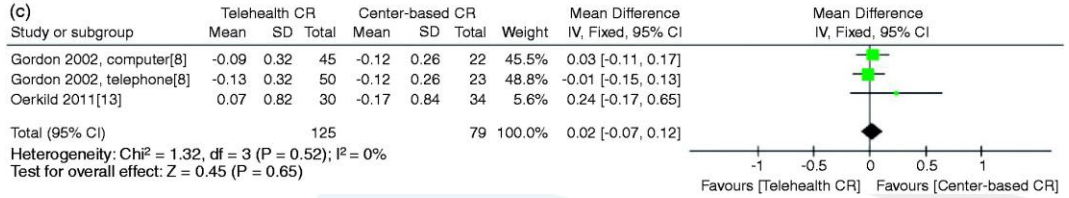
Cholesterol



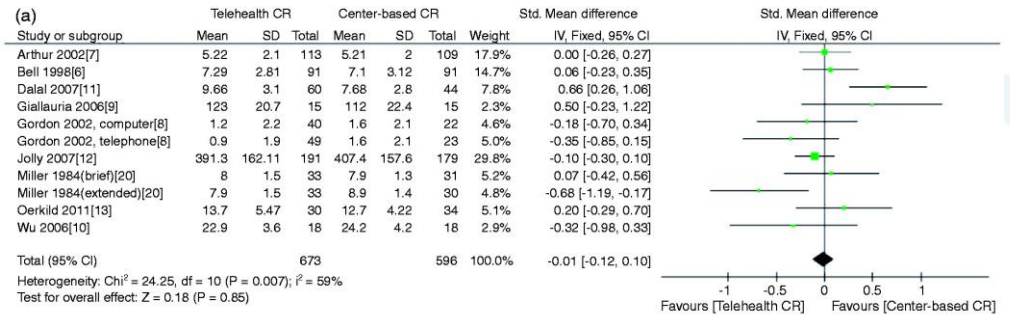
HDL



LDL



Exercise capacity



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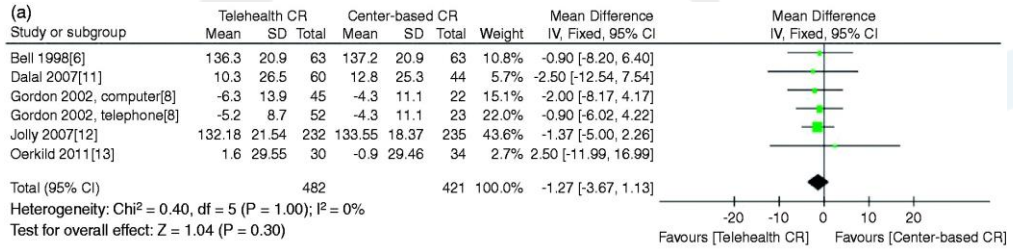
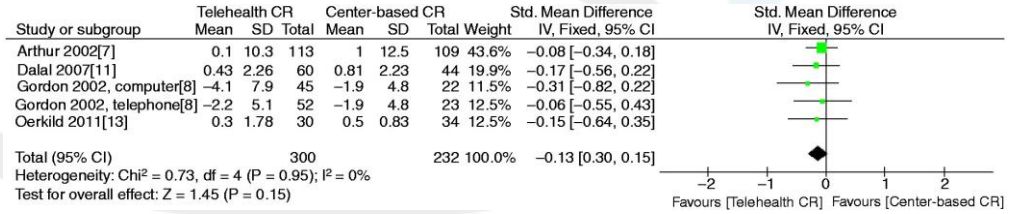


BMI



Huang et al. Eur. J. Prev. Cardiol., 2015: 22; 959–971. https://doi.org/10.1177/2047487314561168

Barriers and facilitators of tele-CV rehab

Barriers and facilitators to the use of telehealth

- What are your perceived barriers?
  - For you
  - For your patients

- What are your perceived facilitators?
  - For you
  - For your patients

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Better patient communication and interactions for behaviour change counselling

The challenges of behaviour change

- Adherence to medical advice involves a complex interaction between healthcare providers (HCP) **communication style** and patient motivation to adopt a particular behaviour
- Patients are not always motivated or willing to follow medical advice, even when there appear to be **obvious benefits**
- Poor HCP **communication style** can seriously undermine patient motivation and increase resistance (non-adherence) – which is counterproductive for both parties
- Telehealth creates an additional 'physical' **barrier**

What are the 3 essential elements needed for behaviour change

Traditional approaches to promoting adherence

- Traditionally, HCP's have **encouraged** patients to adopt a particular behaviour (e.g., start exercising, eat a better diet)
  - Provision of "persuasive" information and advice
- While this works in some patients, evidence for its overall effectiveness is low at 5-10%[1,2]
- Patients are generally resistant to advice when it sounds like they're being "told what to do"[2,3]

[1] Kottke et al, JAMA, 1988; [2] Britt et al, Pat Educ Counsel 2004; [3] Stott et al, Fam Pract, 1990

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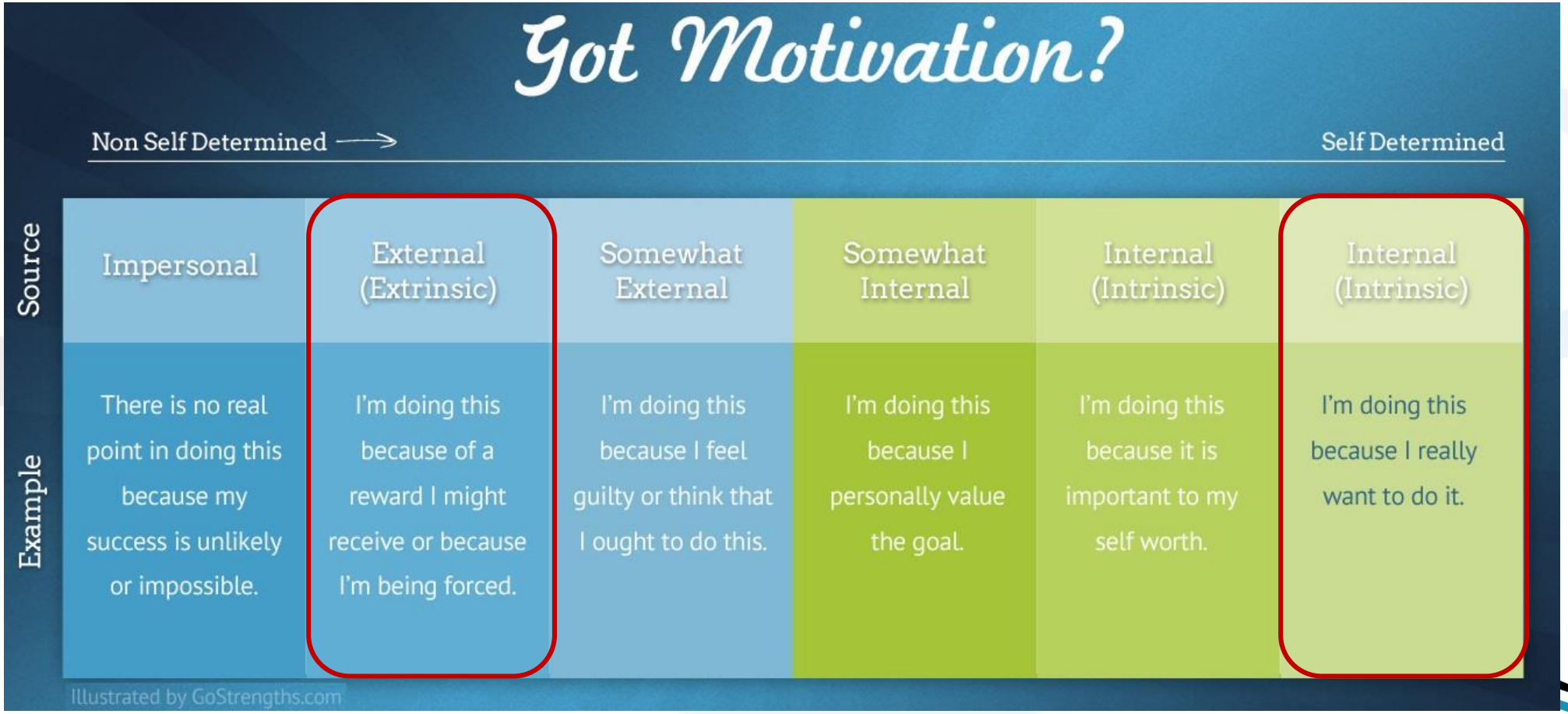
"People are generally better persuaded by the reasons which they have themselves discovered, than by those which have come from the minds of others."

-Blaise Pascal

Shifting from extrinsic to intrinsic motivation



Motivational Communication: A new approach for HCPs

" […] an evidence-based, time-efficient **communication style** used by HCPs to promote patient engagement, adoption of healthy behaviours, and sustained self-management of chronic conditions. It is informed by the behavioural sciences and emphasizes shared decision-making that is tailored to patients' preferences, goals and values."

- Developed specifically for general medical settings and short consultations

Dragomir et al (2021). Translational Behavioral Medicine. https://doi.org/10.1093/tbm/ibaa015

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Core MC Communication Skills

Asking, listening, informing

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MC in a Nutshell

• Attitude + Skills: • Asking • Listening • Informing	Elicit **"change talk"**	Resolve ambivalence, strengthen **motivation & confidence**	**Change behaviour** and improve outcome
Core communication skills	Things people say in favour of change	Major obstacle for change; target of the three 3 MC skills	Ultimate goal of MC

Asking

- In order to engage your patients, elicit accurate information, and motivate them to change, you must learn how to ask questions

- Remember
  - Every question should have a purpose
  - Some responses are entirely predictable!

Building motivation: Asking the right questions

- Questions should target **reasons** for and **ability** to change
- Goal is to get patients to make **their own arguments** for change (increases the probability of change)

- Disadvantages of the status quo
  - "What do you think your life will be like if you [are always short of breath]?"
- Advantages of change
  - "What would you be able to do [if you were more physically fit and active] that you have trouble doing now?"

Listening

- Used to express empathy and reduce resistance[1]
  - **Active listening** = non-verbal cues that let people know you are listening
  - **Reflective listening** = reflecting back the person's needs, goals, values and issues
- Involves making statements, not asking questions
  - *"You're not ready to quit smoking?"*
  - *"You're not ready to quit smoking."*

[1]Rollnick et al, 2008; [2] Pollack et al, J Am Board Fam Med, 2011; [3]Ratanawonga et al, JAMA Intern Med, 2013

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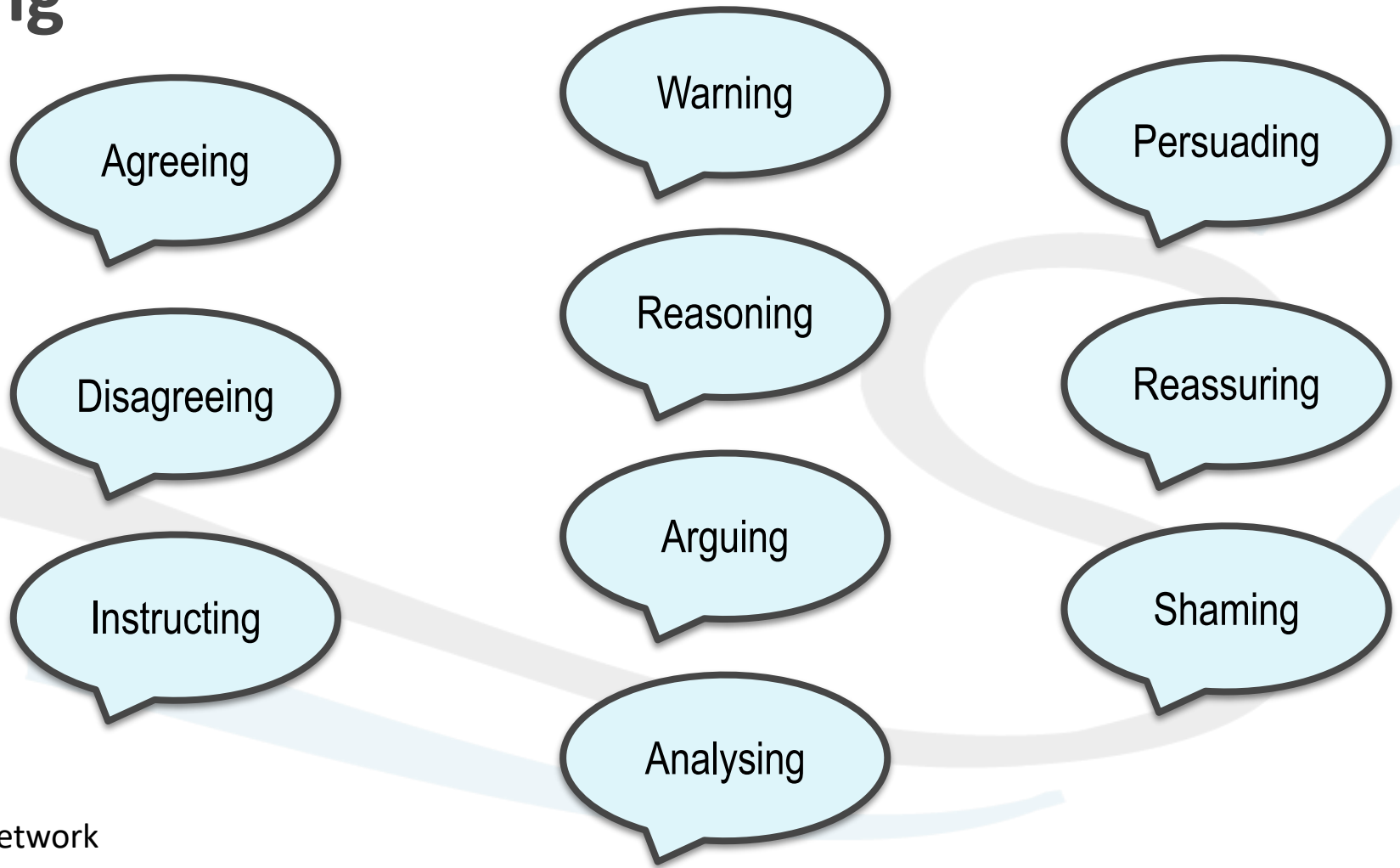
Q: When the solution seems obvious, how easy is it for you to just listen **without** trying to fix the problem?

If You are Doing any of These Things, You are NOT Listening



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Good Listening: Key Criteria

- Eye contact, facial expression, nodding
- Body attitude
- No interruption by the listener
- No external interruption (telephone, etc.)
- No judgement
- Able to reflect back what patient has said
- Leads to more focused questions and comments

Giving information

Ask permission:
"Would it be ok if we discussed…?"

→

Provide information:
Keep it simple (1-2 bits at a time)
Share facts (not your opinion)

→

Ask for feedback:
"What have you understood…?"

Helpful tips for communicating treatment benefits and risks

- Avoid only using descriptive words; their meaning may differ from patient to patient

Schwartz LM, et al. Ann Intern Med 1997;127:966; Schwartz LM, et al. Med Decis Making 2005;25:290

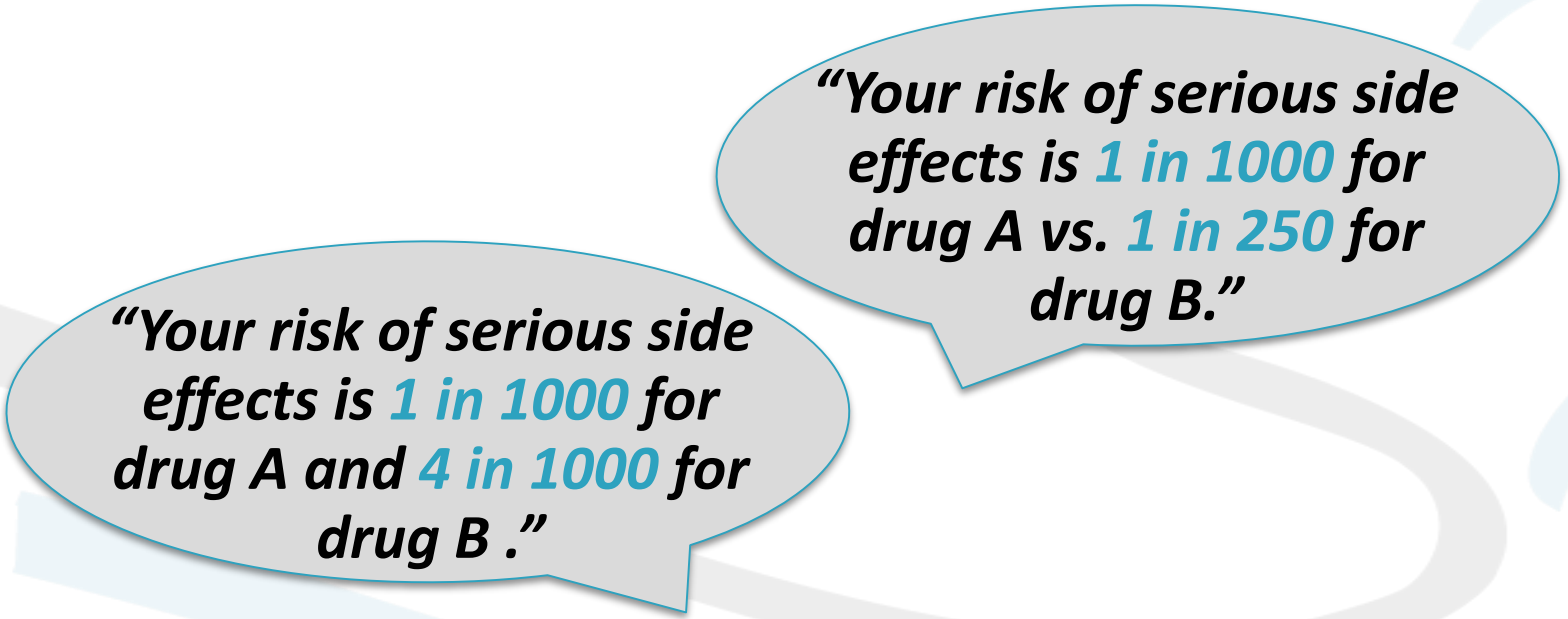
Helpful tips for communicating treatment benefits and risks

- Express odds in positive terms as well

Schwartz LM, et al. Ann Intern Med 1997;127:966; Schwartz LM, et al. Med Decis Making 2005;25:290

Helpful tips for communicating treatment benefits and risks

- When expressing frequencies, use an common denominator



Schwartz LM, et al. Ann Intern Med 1997;127:966; Schwartz LM, et al. Med Decis Making 2005;25:290

Summary: Objectives

1. Evidence for tele-CV rehab
   - It reduces CV events, lowers clinical risk factors, changes behaviour
   - It is good as in-person CV rehab
2. Facilitators and barriers of tele-CV rehab
   - Savings for time and money
   - Technology is both positive and negative
   - Good patient-physician communication is critical
3. Behaviour change counselling skills
   - Asking
   - Listening
   - Informing

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“Things do not change: We change”

Henry David Thoreau

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- Collaborators
  - Dr. Kim Lavoie
  - 20+
  - Various fields
- Staff and students
  - 15 staff
  - 6 Postdocs
  - 12 graduate students
  - Multiple UGs

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Resources

- Beswick et al. Provision, uptake and cost of cardiac rehabilitation programmes: improving services to under-represented groups. Health Technol Assess 2004:8(41).
- Wongvibulsin et al. Digital Health Interventions for Cardiac Rehabilitation: Systematic Literature Review. J Med Internet Res. 2021;23(2):e18773.
- Almathami et al. Barriers and Facilitators That Influence Telemedicine-Based, Real-Time, Online Consultation at Patients' Homes: Systematic Literature Review. J Med Internet Res 2020;22(2):e16407.
- Jin et al. Telehealth interventions for the secondary prevention of coronary heart disease: A systematic review and meta-analysis. Eur J Cardiovasc Nurs. 2019;18(4):260-271.
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