Programming for the dissemination of results:

Changing decision-maker and provider behaviour

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Why looking for knowledge?

‘So said the truthful Prophet

Seek knowledge from cradle to grave’

Ferdosi

Why looking for knowledge?

'Knowing is not enough, we must apply;
willing is not enough, we must do'

Goethe

How to change behaviour?

- *Patient No. 1: Lev Nikolayevitch Tolstoy. Sanguine temperament. His illusion is that he can change others' lives by words*

Provider and decision maker behaviour change

- Behaviour change is the ‘cause’ and also ‘effect’ of quality improvement
  - Effective management approach
  - Rational prescribing
  - Appropriate diagnostic approach
  - Timely referral
  - Effective communication
  - Implementing a screening programme

    …

Provider and decision-maker behaviour change

- Statins for secondary prevention of CHD
- Prophylactic treatment for moderate to sever asthma
- Avoiding poly-pharmacy in epilepsy
- Appropriate treatment for BPH
- Avoiding too early surgery for cataract
- Avoiding unnecessary tonsillectomy
- Timely change of dressing
- Patient education for insulin injection
- Avoiding unnecessary ECT
- Reducing unnecessary routine investigations (EKGs, bone scan, pre-operation)
- Management of pain
- Reducing C/S rate
- Timely transfer to NICU
- Warfarin dosage
- …

Effective interventions for KTE and behaviour change

- What interventions are used for provider and decision maker behaviour change?

Taxonomy of interventions

(Grol 1992, Grol & Wensing 1994, Rashidian 2004)

SAGE TAXONOMY OF INTERVENTIONS: STRATEGIES TO IMPROVE PHYSICIAN PERFORMANCE: EFFECTIVENESS, COSTS, AND LIKELIHOOD OF DURABILITY OF EFFECTS (RASHIDIAN 2004)

			Intervention	Effect	Cost	Durability
Voluntary	Internal motivation	Competence oriented	CME (didactic)	0	Low	Short
			CME (interactive)	++	Medium	?
			IP education	?	Medium	?
			Mailed printed material	+/0	Low	?Short
			Mailed national warnings [$]	+	Low	Medium to long
			Participatory guideline devel.	+	High	?Medium to long
			IP shared care (substitution)	0	?High	Short
			IP shared care (consult.-liaison)	+/0	?High	?
			Mass media	+	Low	?Medium
		Performance oriented	Audit and feedback[$]	+	Low to medium	?
			Reminders (usually computer sys.)	?+	Low to medium	Short
			Educational outreach	?++	Low to high	Short to long
	External motivation	Social influence	Peer review	?	?Medium to high	?
			Patient mediated	+	Low to medium	?
			Local opinion leaders	?	?Medium to high	?
			CQI [$$]	?	?Medium to high	?
		Physical support	Practice support	?	?	?
			Essential drugs programmes [%]	?+	?	?
		Financial incentives	Financial incentives	?+/-	Low to high	?Short to medium
Non-voluntary			Reimbursement and budgetary policies	?+/-	?	?
			Rules, obligations	?	?	?
			Restricted formulary	+	?	?Medium to long
			De-registration / reclassification	?+/-	?	?

Taxonomy of interventions

(Grol 1992, Grol & Wensing 1994, Rashidian 2004)

Behaviour change interventions

- Voluntary
  - Internal motivation
    - Competence oriented
    - Performance oriented
  - External motivation
    - Social influence
    - Physical and organisational support
    - Financial incentives
- Non-voluntary
-

Competence oriented interventions

- Continuous education (didactic)
- Continuous education (interactive)
- Inter-professional education
- Mailed printed educational material
- Mailed national warning campaigns
- Participatory guideline development
- Inter-professional shared care (substitution or consultation)
- Mass media campaigns

Clinical practice guideline: a sample

Distribution of CPGs - on its own - may not change behaviour

Performance oriented interventions

- Audit and feedback
- Reminder
  - Computerised systems
- Educational outreach
  - Academic detailing

Social influence interventions

- Peer review
- Patient mediated
- Local opinion leaders
- Continuous quality improvement

Physical and organisational support

- Practice and structural support
- Organisational reforms
- Essential drugs programmes
- National programmes
- Regional and local programmes

Financial incentives

- Payment methods
  - Outcome based payment
  - Fee-for-service
  - Out-of-hour payment
  - Bonus (targeted) payment
  - Capitation payment

Non-voluntary interventions

- Certain payment and budgeting approaches
- Laws and regulations
- Drug formularies
- Equipment or service limitations
- De-registration / reclassification

Effectiveness of interventions

- *Undertaking reviews to identify promising implementation techniques is difficult, because of the complexity inherent in the interventions, the variability in the methods used, and the difficulty of generalising study findings across health care settings (Bero et al, 1998)*

User views on intervention effectiveness (Rashidian 2008)

Perceived effectiveness of interventions to implement guidelines' prescribing recommendations in primary care[a]

Intervention	Perceived effectiveness (GP opinions)
Participatory guideline development	Effective
Audit and feedback	Effective
Patient mediated	Effective
Peer review	Effective
Local opinion leaders	Effective
Practice support	Effective
Rules, obligations	Effective/context specific
Inter-professional shared care	Effective/context specific
Reminder systems	Limited effect
Educational outreach	Limited effect
Financial incentives	Limited effect
Mailed printed material	Not effective

[a] Note that the views of the interviewees are not necessarily in line with evidence obtained through interventional studies.

Multi-faceted interventions

- Using more than one intervention
- Engaging with the topic (problem) from different angles
- Usually more costly
- Assumed to be more effective …

Effectiveness of multi-faceted interventions (Rashidian 2004)

- Less cost-effective
- No linear relationship between number of interventions and effects
- Limited impact from increasing intensity on effectiveness
- Higher absolute cost of multi-faceted interventions
- Limited capacity of health systems for multi-faceted interventions

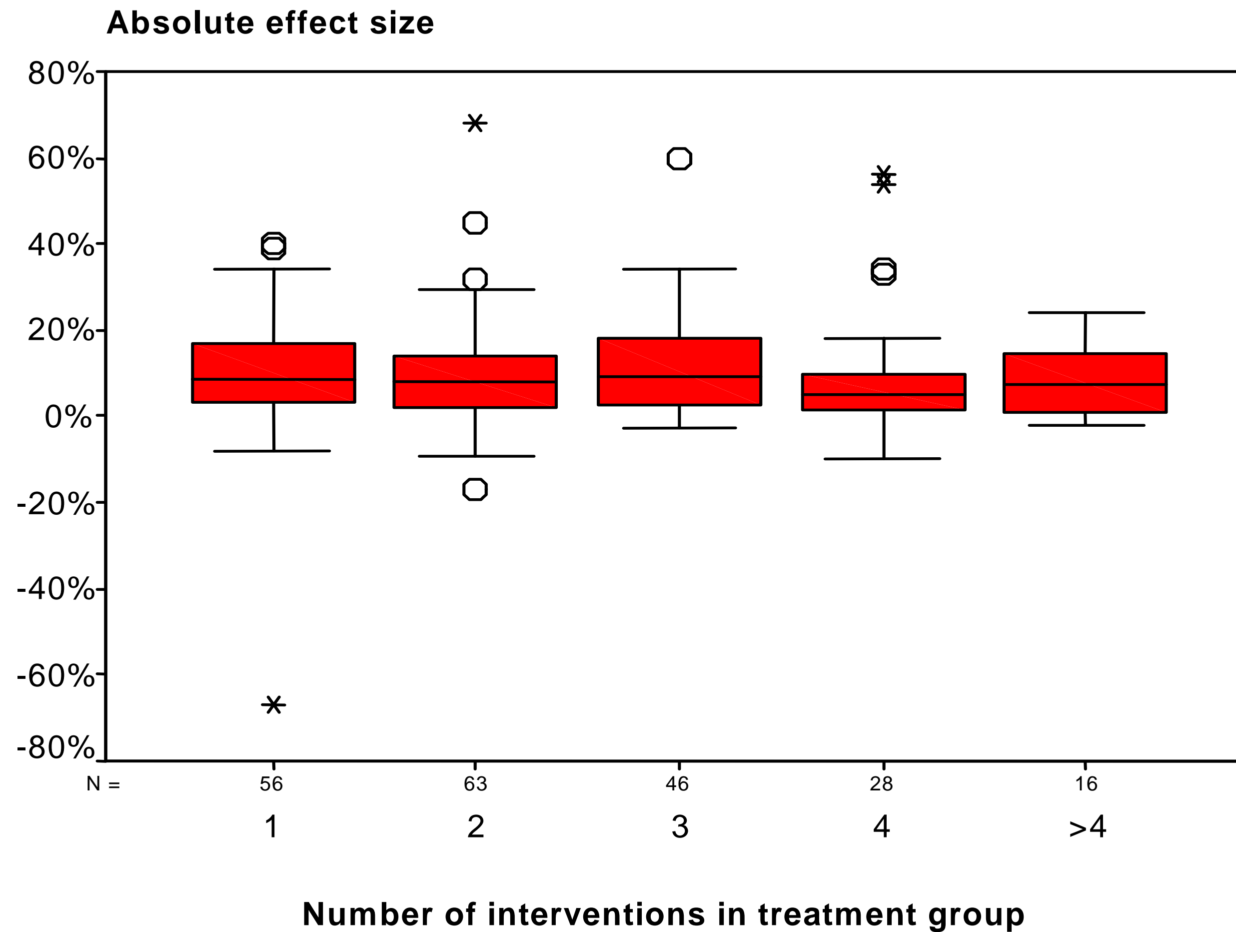
Hence …

The claim:

‘the degree of change appears to be directly proportionate to the number, type, and intensity of interventions proposed’

is misleading!

Effectiveness of multi-faceted interventions (Grimshaw et al 2004)



KTE and behaviour change interventions are …

- Diverse and numerous
- Many health systems use few of them
- There is limited emphasis on non-voluntary approaches (or 'punishments')
- Attention to barriers to change
- Attention to effectiveness evidence
- Attention to mechanism of intervention effect
- Attention to available resources

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