Supplementary file 1: Initial programme theory

Supplemental material

The initial programme theory was developed based on the principles of academic detailing (AD) employed in educational visits (EV) as described by Soumerai and Avorn and others, AD programme and training materials or documentation. Also drawn from this literature are observed or proposed outcomes for each principle and why these may have been achieved. Theoretical papers and editorials were then reviewed for explicitly or implicitly expressed additional theories underpinning the principles. A number of theories have been propositioned to explain behaviour changes achieved by AD/EV and frame AD training and practice, for example, cognitive and behaviour change theories like social cognitive theory (SCT), the trans-theoretical model of change, Theory of Planned Behaviour (TPB) and Diffusion of Innovations theory (DOI), in addition to integration of a social marketing (SM) framework and an adult learning approach.

Academic detailing principle	What is its application supposed to	Why is it supposed to work?	Proposed theory/ framework
	achieve? Outcomes		
Preparation - content			•
Designing programs to meet the needs of	Identify evidence-practice gaps.	Relevance to practice raises	Adult learning theory
specific doctor targets.	Define which evidence-practice gaps	interest from clinicians,	
Developing clear objectives.[1]	to address and how.	increases applicability of	
		content.	
Literature on efficacy, risk, and cost-	Establish best available evidence to	Defines 'norms' or models of	Social marketing framework
effectiveness is systematically and critically	inform clinical practice.	practice.	(SM) – defining the 'product'
evaluated by a clinical team with no personal	Establish evidence-based strategies	Independence respected by	
financial ties to any drug maker. ²	which have potential to improve	clinicians.	
Establishing credibility of the information	practice and people's health (close	Credibility facilitates	
and the visitor through respected	evidence-practice gaps).	consideration and acceptance	
organisational identity.[1]	Establish credibility.	of messages.	
Develop concise educational materials.[1]	Facilitate presentation of content,	Facilitates clinicians'	Social cognitive theory (SCT) -
Literature condensed and "packaged" into a	provide initial structure to guide EV	understanding of and	increase knowledge, support
format that is easily accessible, clinically	conversation.	engagement with evidence.	self-efficacy
relevant, rigorously sourced, and			SM – designing the 'product'

compellingly formatted, making use of	Provide reference points for later	Creates positive impression	Social exchange theory
engaging graphics, headlines, and	reflection or practice.	and enhances credibility.	
illustrations.[2]	Indirect re-iteration of messages.		
	Materials and information as 'gift'.		
Messaging acknowledges both sides of	Provide balanced information and	Facilitates reflection on	Reflective learning
controversial issues.[2]	acknowledgement of uncertainties in	evidence base. Respects	
	clinical practice.	clinicians' own judgement and	
	Demonstrates credibility and	professional autonomy.	
	independence.		
Making practical recommendations that are	Increase utility of content.	Enhances clinician self-	SCT - support self-efficacy
immediately applicable to improving real-	Enable translation of knowledge /	efficacy.	
world patient care decisions. ²	evidence into practice.		Adult learning
The message is concise and clearly relevant	Improvement of patient care.		
to patient care.[3, 4]			
Training – visitors delivering the educationa	al visit:		
Train clinicians (e.g. pharmacists, physicians,	Ensures baseline clinical knowledge	Shared understanding of the	DOI: homophily between visitor
nurses) to serve as the academic detailers.[2,	and understanding of clinician's	reality of clinical practice.	and clinician.
5]	practice.	Potentially enhances	
		credibility of visitor.	
The following aspects of training are based	Visitors have appropriate clinical,	Enhances credibility of visitor.	Experiential and adult learning
on training and program documents of	content knowledge, communication	Acceptance by clinicians.	Communication theories
established AD services: DATIS, NaRCAD,	and interpersonal skills and	Confidence of visitors to	
Canadian training programs.[3, 5]	understanding of communication and	conduct interactive topic	
Training entails [2]:	learning theories, awareness and	discussions.	
Academic detailing (underpinning theories,	understanding of clinicians' practice. ²		
process, role play, execution).			
Communication, networking & interpersonal			
skills.			
Behaviour change & persuasion.			

Solid grasp of the clinical issues, most						
current evidence base underlying a given set						
of recommendations.						
Resources and interventions being offered by						
the program.						
Educational exchange – communication process:						
Timing and location is at clinician's	Clinician is on her/his own ground,	Facilitates reflection on	Social exchange theory: favour			
convenience and he/she does not need to	practice setting.	practice in context of and	of convenience			
interrupt the normal routine of the working	Increases chances of participation and	translation of content into				
day.[3,4]	engagement.	practice. Convenience of visit.				
Detailer establishes rapport with clinician.[3]	Facilitate open dialogue and sharing of	Builds a relationship and trust.	Communication theories			
	information.					
	Acknowledge clinician's unique					
	situation and practice.					
Detailer elicits the clinician's baseline	Recognise information / learning needs	Allows to meet needs.	SCT, learning theories			
knowledge, attitudes, and practices.	of clinician.					
An adept academic detailer (like an						
experienced sales rep) ascertains how a						
clinician approaches medication use for a						
given clinical problem.[2]						
Topic/messages can be tailored to the	Adjusts the conversation to address	This 'tailored' approach makes	Communication theories			
prescriber's current understanding and	personal learning opportunities. ²	the health professional feel				
behavior.[2]	Ensures relevance of recommendations	heard and, in turn, creates an				
Tailored based on the clinical context of the	to clinician's needs and practice.	environment where they are				
practice or provider and on specific barriers		more receptive to the				
faced by the practice or provider.[5]		information. ⁵				
Detailer has a series of highly interactive	Identification of barriers and enablers	Reflection on practice creates	Learning & communication			
discussions with individual clinicians.[7,8]	for change. Active participation	potential for practice change.	theories			
	ensures engagement.	Encourages elaboration on				
		messages.				

Repetition of key messages and providing	Uptake of messages.	Reminders of previous visits	Learning theories	
reinforcement through repeated visits. 1	Repeat visits show commitment by	and discussions.		
The importance of clinician reminders in	academic detailer and clinician.			
academic detailing intervention.[5]				
Elicit commitment to change.[3, 5]	Precursor to actual change.	Change in attitude and beliefs.	Theory of Planned Behaviour	
Follow-up, continuing service				
Provision of resources and information to	Building relationships and establishing	Establishes reciprocity.	Social exchange theory	
clinician.[1, 3, 6]	service, support clinical practice,			
	extension of visit			
	Demonstrate commitment.			
Detailer develops a sustained relationship.[7,	Building relationships and establishing	Builds trust in messages.	Repeat visits - Social exchange	
8]	service		theory	
The importance of the number of academic				
detailing visits a detailer makes to the same				
provider.[5]				

References

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