



# Session objective: Empower the clinical teachers scholarly role

Session: A most provocative and useful final session

<u>How</u>: Three speakers will offer different, and divergent viewpoints on research approaches to the very *ecletic challenge* of prosthodontic practice and research

Wikipedia: Eclecticism: a conceptual approach that does not hold rigidly to a single <u>paradigm</u> or set of assumptions

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<u>Why:</u> *Elucidate* the merits of research and educational protocols to provide best clinical evidence for making informed prosthodontic decisions

Wikipedia: Elucidate: make clear, clarify, expound

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<u>Why:</u> *Elucidate* the merits of research and educational protocols to provide best clinical evidence for making informed prosthodontic decisions

<u>AJs role</u>: to represent the *puristic exegetic* EBM approach

**Wikipedia: Exegesis** (from the <u>Greek</u> ἐξηγεῖσθαι 'to lead out') involves an extensive and critical *interpretation* of a <u>text</u>

The Practice of Medicine and Dentistry reflects changes in Society and research

## Philosophy

# 18th century: Age of enlightenment (or age of reason)

Philosophers: George Berkeley, Thomas Paine, Voltaire, Jean-Jacques Rousseau, David Hume...

## Philosophy - Chronology (very condensed!)

18th century: Age of enlightenment

Wars and misery

19th century: Scepticism

Nietzsche: "*God is dead. The same applies to Christian morality and metaphysics!*"

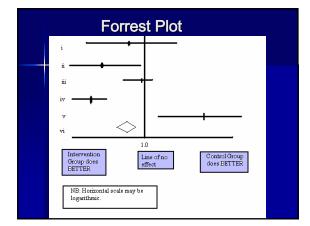
### Philosophy - Chronology (very condensed!)

18th century: Age of enlightenment Wars and misery 19th century: Scepticism. Nietzsche

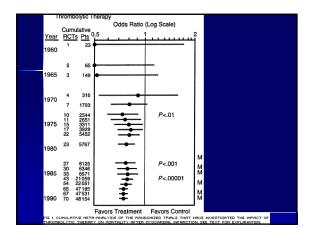
More wars, misery and genocides <u>20th century</u>: Emerging cultural and structural criticism ontology & epistemology Modernism (Ihab Hassan / Popper/ Kuhn) Postmodernism (Jean-F Lyotard) Poststructuralism (Michel Foucault / Jacques Derrida)



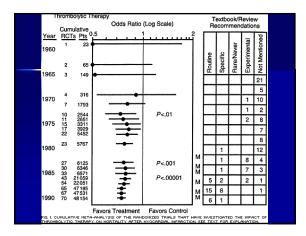
# A strategy for how to cope with changes ?





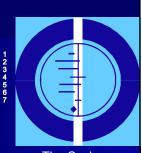




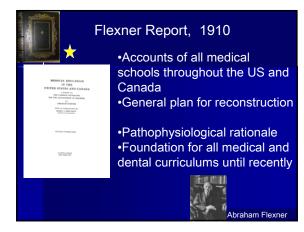


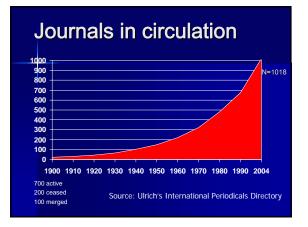


- In 1972, a study was published which showed that an inexpensive drug (a corticosteroid) given to women expected to give birth prematurely could help reduce complications in the infant.
- □ Six additional trials were done over the next 15 years, appearing periodically in the medical literature.
- A systematic review in 1989 summarized these 7 trials to establish beyond a doubt that giving this drug reduced the odds of babies dying from complications by 30-50%.
- Because the systematic review wasn't published until 1989, most obstetricians did not know that the treatment was so effective, even though evidence had existed since 1972.
- As a consequence, tens of thousands of premature babies may have suffered and died unnecessarily.
- 1972: Corticosteroid given to women expected to give birth prematurely reduces complications in the infant.
- TPant.
  1989: A systematic review summarized 7 trials to establish beyond a doubt that giving Corticosteroid reduced the odds of babies dying from complications by 30-50%.
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The Cochrane Collaboration 1992





A strategy for how to cope with changes ?

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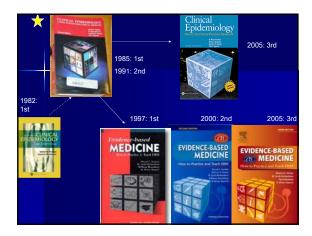
proceed? The Way of the Past Parcel with this situation as a clinical derk, the resident was told by her size resident (who was supported in his view by the attending physical) that the risk of seizen recurrence is high through the could not path an exact num-that should be could not path and the that should be coursed to the patient. She now follows this path, emphasizing to the patient of the r mea-ate physicians ce-based med-a weekly, for-idents, deary skills; es of phy-nce-based ilty of ap-N H O

ly pro A PARADIGM SHIFT uas Kuhn has The

## **Clinical epidemiology**

The application, by a physician who provides direct patient care, of epidemiologic and biostatistical methods to the study of diagnostic and therapeutic processes in order to effect an improvement in health.

David Sackett, 1968 McMaster University, Hamilton, Ontario, Canada





## Medicine has changed:

 Basic Philosophical trends in society Criticism of:

Effectiveness – Health equity - Costs – Priorities in health and research

- 2. Lack of implementation of new and effective interventions
- 3. Clinical epidemiology  $\rightarrow$  EBM
- 4. Education  $\rightarrow$  EBM







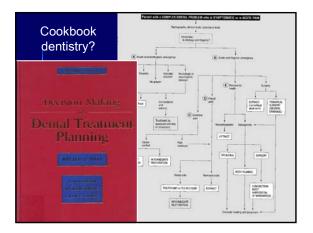
Clinical Decision Making and Treatment Planning in Osseointegration

Engelman M. Quintessence 1996

Decision-Making in Operative Dentistry

Brunton P. Quintessence 2002

Decision Making in Periodontology Hall WB. Elsevier 1997

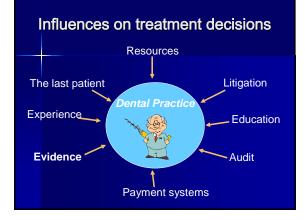




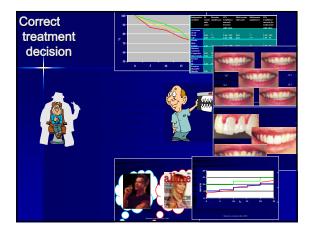
*"Medicine is a science of uncertainty and an art of probability"* 



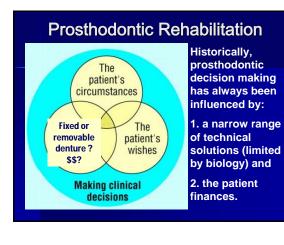
William Osler (1849-1919)

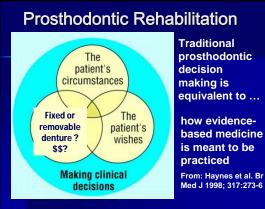






EBM: It is suggested that an evidence-based approach can facilitate treatment decision making





prosthodontic equivalent to ...

how evidencebased medicine is meant to be

Scientific studies can be graded according to the the theoretical possibility of an incorrect conclusion.

This is reflected by the design of the study.

...we will never know exact answers in science....

	Sookmaks & Lo	cation PAID.///cetan.s2.cx.ac.uk/docs/fe	rvels, filma		💌 🗱 🖉 Salitadas Resident
		Oxford Cer	ntre for Eridence-based Medicine Level	s of Evidence (May 2001)	
Lav	effloreapyProvention, Acticlogy/Ham	Frognosie	Diagunia	pervalence study	Economic and decision analyses
4	ER (with honogeneity?) of RCTs	ER (with homogeneity") of inception cohort studies, CDR1 validated in different populations	DR (with homogeneity*) of Level 1 degeneric studies, CDRT with 15 studies from different classed control	2R (with homogeneity*) of prospective volues studies	ER (with homogeneity*) of Level 1 economic studies
15	Indensited SCT (with nearest Confidence Interest2)	Individual inception, exhibit study with 2 30% follow up, <u>CES2</u> videlated in a single population	V delating** robert study with good[11 reference students, or CCRI tested within one clinical centre	Prospective cohort study with good follow-up****	Analysis based in cleanally enable costs or elemetrice, systematic certeer(s) of the redence, and including multi-way senatority analyses
le:	Al monei	All or none care-sense	Absolute Splims and Sulfouts []	AS or none rate-rear should be	Absolute betten value or more value analyses IIII
24	ER (with homogeneity*) of schot, stakes	DR (with homogeneity?) of either extrospective cohort studies or sustavated control groups in RCTs	IR (with homogeneity*) of Level >2 Regnoric studies	DR (with homogeneity*) of 25 and better studies	ER (with homogeneity*) of Level ) scoromic studes
h	Indexidual cohort study (including low quality RCT; * g, <30% fuBow-up)	Retranspective colocit shady or follow-up of solevated context patients in an RCT, Derivation of CERP, or validated on path-supplicities only	Exploratory** cohert study with good[1]inderence standards, CDR] wher destrution, or validated only on split-rangle555 or databases	Estempective column study, or poor follow-up	Analysis based on claucally sensible nosts is alternatives, landed senser(i) of the evidence, single studies, and including multi-way sensitivety andyses
24	"Outcomes" Research, Ecclogical studies	"Outcomes" Research		Ecclogend studies	Avada ze ostronan menerik
24	ER (with homogeneity") of rare-control studies		DR (with homogeneity*) of 36 and better studies	DR (with homogeneity*) of 3h and better studies	SR (with bonogeneity*) of 36 and better studies
24	Indexidual Cure-Control Study		Mosconsecutive study, or educat consistently applied reference standards	Non-consecutive cohort shady, os very imited population	abendives or note, poor quility estimates of data, but including resultivity analyses incorporating clinically sensible vanishing.
4		Cure every (and good goodly prognomic colori studies***)	Case-coated study, poor or non-independent reference standard	Cure mane or poperaeded reference standarda	Analysis with no sensitivity analysis
5	Expect opinion without explicit	Expert opinion without explorit cotical appraical, or based on physiology, beach meearch or "first unscision"	Espert opinion without explicit catical approach, or based on physiclogy, bench research in "first principles"	Espert opinion without explorit estimat appeared, or based on physiology, bench research or "first principles"	Expert opinion without explicit critical appraired, or based on economic theory or "first negocialies"



	Differential diagnosis/symptom prevalence study	Economic and decision analyses
') of Level 1 R† with 1b linical centres	SR (with homogeneity*) of prospective cohort studies	SR (with homogeneity*) of Level 1 economic studies
ıdy with ıdards; or e clinical centre	follow-up****	Analysis based on clinically sensible costs or alternatives; systematic review(s) of the evidence; and including multi-way sensitivity analyses
nNouts††	All or none case-series	Absolute better-value or worse-value analyses ††††
) of Level >2	SR (with homogeneity*) of 2b and better studies	SR (with homogeneity*) of Level>2 economic studies
tudy with dards; CDR† dated only on abases	follow-up	Analysis based on clinically sensible costs or alternatives; limited review(s) of the evidence, or single studies; and including multi-way sensitivity analyses
	Ecological studies	Audit or outcomes research



	Qualit ative	Cross- Sectional	Case Control	Cohort	RCT
Diagnosis				\$	র র
Therapy				\$	ት ት ት
Prognosis				***	
Screening			\$	\$	ने ने
Views/beliefs perceptions	***				
Prevalence/	국국국	**			

*"Guerir quelquefois, soulager souvent, consoler toujours"* 

*"Cure occasionally, relieve often, console always* "

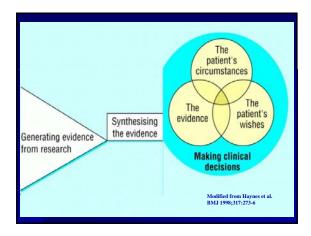


#### Ambroise Paré (1510 –1590)

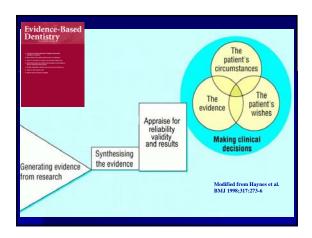
Appropriate Study Designs to address implementation of interventions								
	Qualit ative resear ch	Surve y	Cas e Con trol	Coho rt	RCT	Non- exper	Systemati c review	
Effectiveness: Does it work?				☆	☆☆	☆	급급급	
Process of intervention/ delivery: How does it work?	☆☆	\$				\$	***	
Salience: Does it matter?	<b>☆☆</b>	☆☆					급급급	
Safety: Will it do more good than harm?	\$		\$	\$	44	\$	ት ት ት ት	
Acceptability: Will the patient accept the intervention?	ኋኋ	\$			\$	\$	***	
<b>Cost effectiveness:</b> Is it worth paying for the intervention?					☆☆		***	
Appropriateness: Is this the right intervention for this patient?	☆☆	<b>\$</b> \$					44	
Satisfaction with the intervention: Are users, providers and other stakeholders satisfied?	<b>☆☆</b>	<b>☆☆</b>	☆	\$			\$	



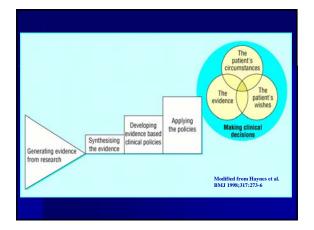
It is suggested that EBM can be implemented in daily practice in various ways



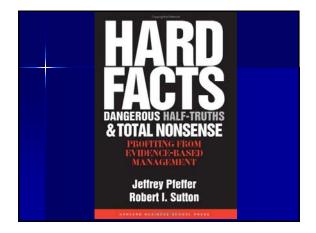








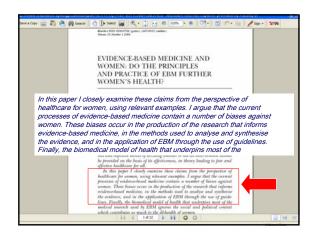






Arguments, usually presented with hear evangelistic zeal, that no health related action should ever be taken by a doctor, a nurse, a purchaser of health services, or a politician unless and until the results of several large and expensive research trials have appeared in print and approved by a committee of experts







#### Deconstructing the evidence-based discourse in health sciences: truth, power and fascism

Int | Evid Based Neetlin: 2006; 4: 180-106

Dave Holmes RN PhD,<sup>1</sup> Stuart J Murray PhD,<sup>2</sup> Amélie Perron RN PhD(cand)<sup>1</sup> and Geneviève Rail PhD<sup>1</sup> 'fawiy of Netth Science, School of Nurse, Unteresty of Ottawa, Ottawa, and 'Department of Depictor Appron Unteresty Torons, Ottawa, Casad

## Restances and Drawing on the work of the late French philosophies Deleage and Causard, the eleptronic of this paper is to demonstrate that the orderoclosued movement in the latesh society is includinguish and and and the society of the philosophies of the to control Normice and the philosophies of the society of the contemporary committee with philosophies of the philosophies of the philosophies of the contemporary committee control contexture as pool savergies of monitorization at gips in the contemporary committee.

- Objective The philospheral work of Objects and a second se

evening an arrow service. The second seco Key words: critique, deconstruction, evidence-based, fascium, health sciences, power

#### Abstract

Background Drawing on the work of the late French philosophers Deleuze and Guattari, the objective of this paper is to demonstrate that the evidence-based movement in the health sciences is outrageously exclusionary and dangerously normative with regards to scientific knowledge. As such, we assert that the evidence-based movement in health sciences constitutes a good example of microfascism at play in the contemporary scientific arena.

Objective The philosophical work of Deleuze and Guattari proves to be useful in showing how health sciences are colonised (territorialised) by an all-encompassing scientific research paradigm – that of post-positivism – but also and foremost in showing the process by which a dominant ideology comes to exclude alternative forms of knowledge, therefore acting as a fascist structure.

Conclusion The Cochrane Group, among others, has created a hierarchy that has been endorsed by many academic institutions, and that serves to (re)produce the exclusion of certain forms of research. Because 'regimes of truth' such as the evidence-based movement currently enjoy a privileged status, scholars have not only a scientific duty, but also an ethical obligation to deconstruct these regimes of power.

Key words: critique, deconstruction, evidence-based, fascism, health sciences, power.

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#### EBM: unmasking the ugly truth

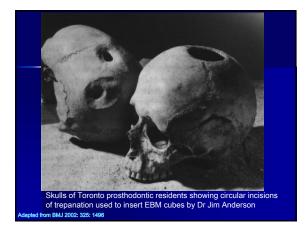
Clinicians for the Restoration of Autonomous Practice (CRAP) Writing Group One morning we found a strange notice nailed to the door of the *BMJ*. On checking their email, all *BMJ* staff found the full, illustrated version of this report

Clinicians for the Restoration of Autonemous Practice (ICRAP) has written this report and tudied it to the does of the *BAJ*. We have done this anonymously and under the *BAJ*. We have done this anonymously and under the *BAJ*. We have done this anonymously and under the *BAJ*. We have done this anonymously and under the *BAJ*. We have done this anonymously and under documents illected by 12M box report is based on documents illected by 12M box report is based on documents illected by 12M box report is based on documents illected by 12M box report is based on documents illected by 12M box report is based on documents illected by 12M box report is based on documents illected by 12M box report is based on documents illected by 12M box report is based on documents illected by 12M box report is based on documents illected by 12M box report is based on the renth abox EFM but hisly have not founded to report highps, can report provides in trending proof that EFM has indeed, a full-blow movement, our provelysiancin hores occurring on a log box leads and interactions the very existence of for profit, detect rements, and/bottamin medicing are blow to the blow. The AFM box box removes and in existence of the profit, detect reports based by the relation to the detect of the relation is developed rements, and/bottamin medicing are blow to the context of the relation is developed rements. and/bottamin medicing are blow to the blow to relation to the rest of the relation the relation of the









"Doubt is not a pleasant condition, but certainty is an absurd one"



Voltaire (1694-1778)



# Thank you for attention

