

Faith Healing & Evidence Based Medicine

Biblical basics

¹Lord from the depths to thee I cry'd.

²My voice, Lord, do thou hear:

Unto my supplication's voice

Give an attentive ear

⁵I wait for God, my soul doth wait,
my hope is in his word.

⁶More than they that for morning watch,
My soul waits for the Lord

- *Psalm 130*

Yea though I walk through the valley of
the shadow of death...

...I will fear no evil, for thou art with
me

- *Psalm 23*

The humble
ADVICE
OF THE
ASSEMBLY
OF
DIVINES,

Now by Authority of Parliament
sitting at WESTMINSTER,
CONCERNING

A shorter Catechism,

With the Proofs thereof out of the Scriptures,
Presented by them lately to both Houses of
PARLIAMENT.

*A certain number of Copies are Ordered to be Printed onely for the
use of the Members of both Houses and of the Assembly of
Divines, to the end that they may advise thereupon.*

LONDON,
Printed by J. F.

Q36 - “The benefits... in this life...
assurance of God's love, peace of
conscience, joy in the Holy Ghost,
increase of grace and perseverance to
the end”

Q95 – “Prayer is an offering up of our
desires unto God, for things agreeable
to his will... and thankful
acknowledgement of his mercies”

The Lords Prayer

“...Thy will be done on earth, as it is in heaven...”

Q103 - "...That God, by his grace, would make us able and willing to *know*, *obey*, and *submit to his will* in all things..."

Q11 - “God's works of providence are, his most holy, wise, and powerful preserving and governing all his creatures, and all their actions”

“...our God whom we serve is able...
But if not...”

Daniel 3 v 15 – 18

“Father, if you are willing, remove this
cup from me. Nevertheless, not my
will, but yours, be done.”

Luke 22 v 41 – 42:

Is Christ not enough?

For in him the whole fullness of deity dwells bodily, and you have come to fullness in him

Colossians 2:9

“Complete in Christ” www.donaldmacleod.org

Just a question:

Has the church regressed back to the superstition and corruption of the medieval church by again adding the mystical, the dramatic and the sensational?

Science

The heart of the prudent acquires
knowledge,
And the ear of the wise seeks
knowledge.

Proverbs 18v15

Science - is systematic, builds and organizes knowledge in the form of testable explanations and predictions about the universe.

Scientific method – consists of systematic observation, measurement, and experiment, and the formulation, testing, and modification of hypotheses

“Count what is countable, measure what is measurable, make measurable what is not.”

- *Galileo*

“A false balance is an abomination to the Lord, but a just weight is his delight.”

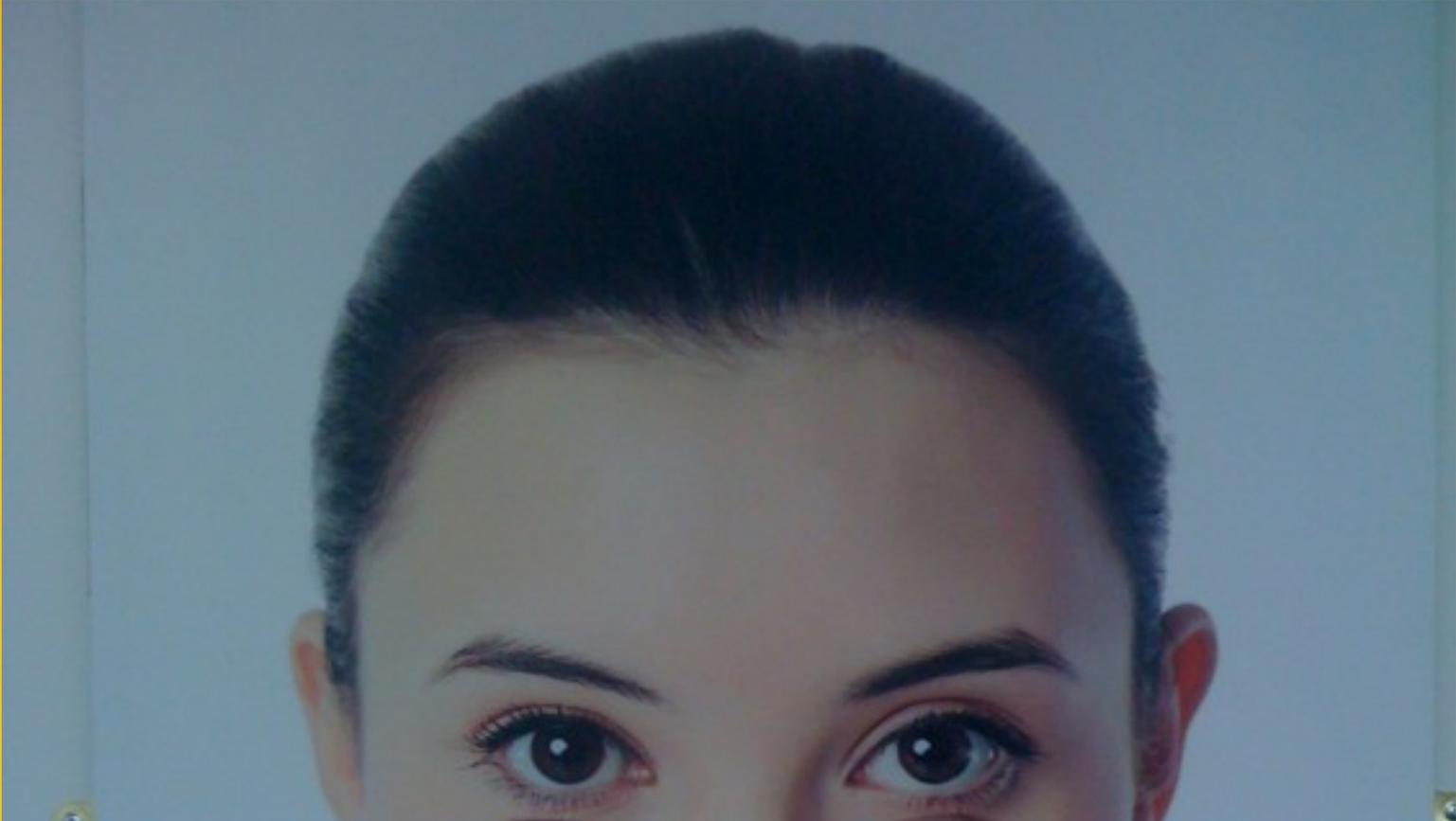
- *Proverbs 11 v 1*

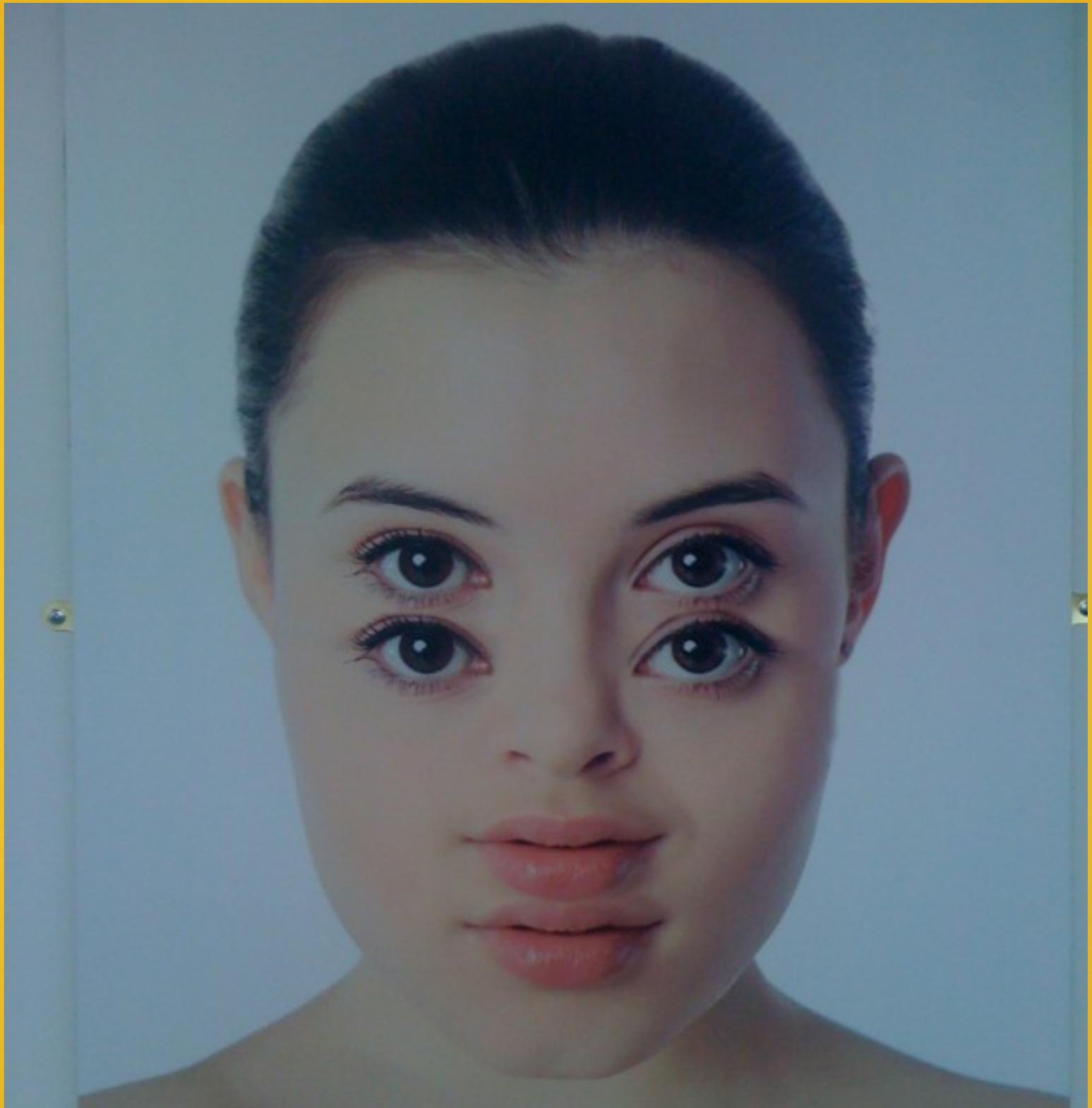
All truth is God's truth!

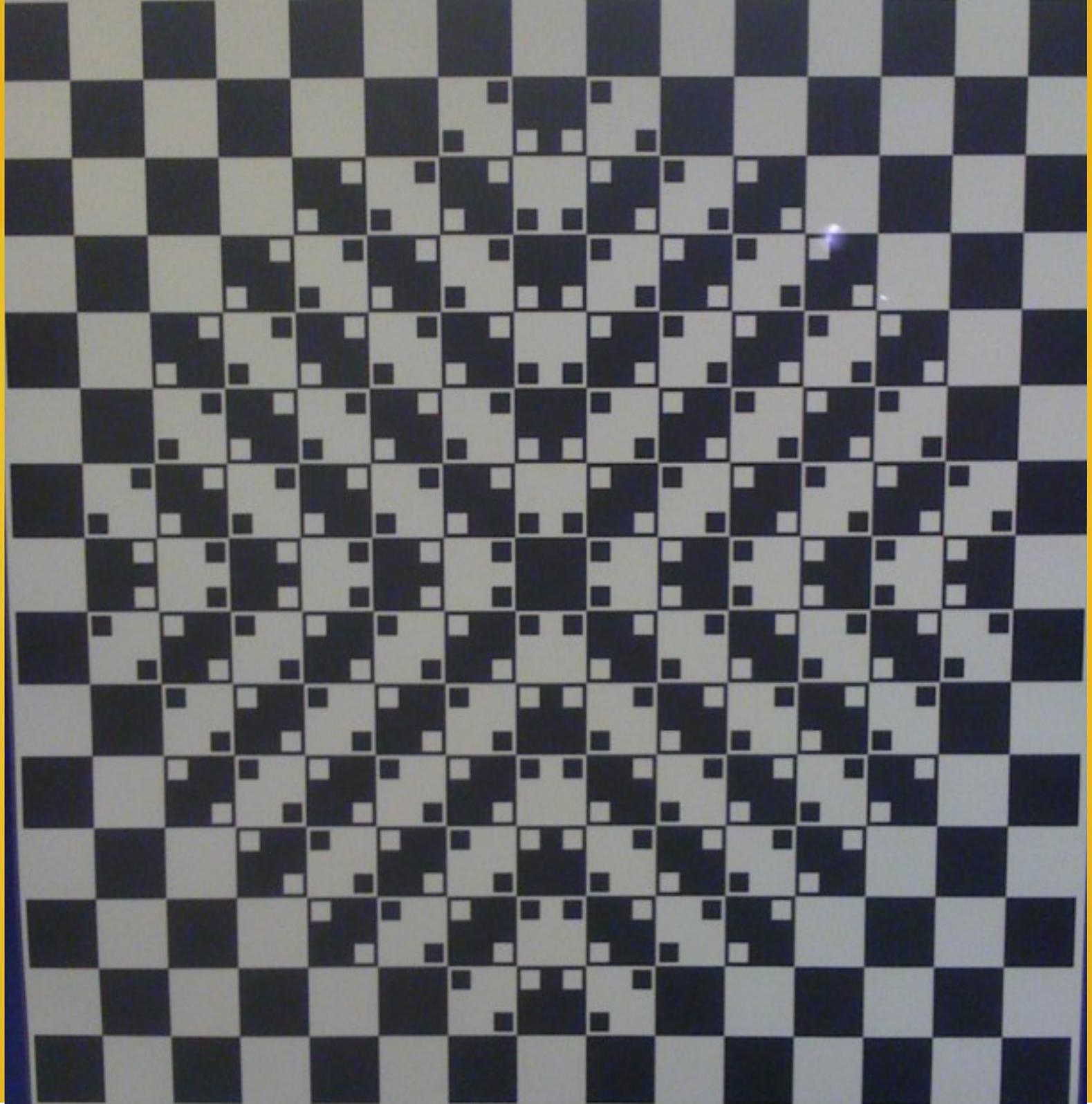
www.cis.org.uk

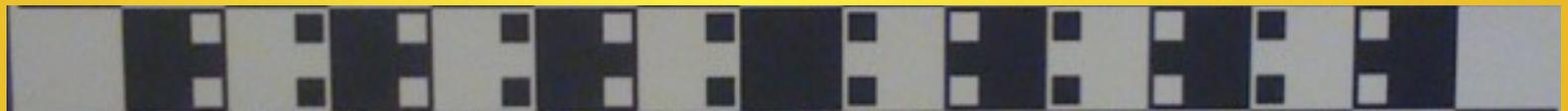
www.st-edmunds.cam.ac.uk

www.bethinking.org









Medicine

You take the pills,
you get better,
IT WORKS!!!





U.S. Food and Drug Administration

Protecting and Promoting *Your* Health

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One product does it all

Personal testimonials

Quick fixes, cures

“Natural”

Time-tested or new-found treatment

Paranoid accusations

Meaningless medical jargon

<http://www.fda.gov/ForConsumers/ProtectYourself/HealthFraud/default.htm>

<http://www.fda.gov/Drugs/EmergencyPreparedness/BioterrorismandDrugPreparedness/ucm137284.htm>

Example warning letter

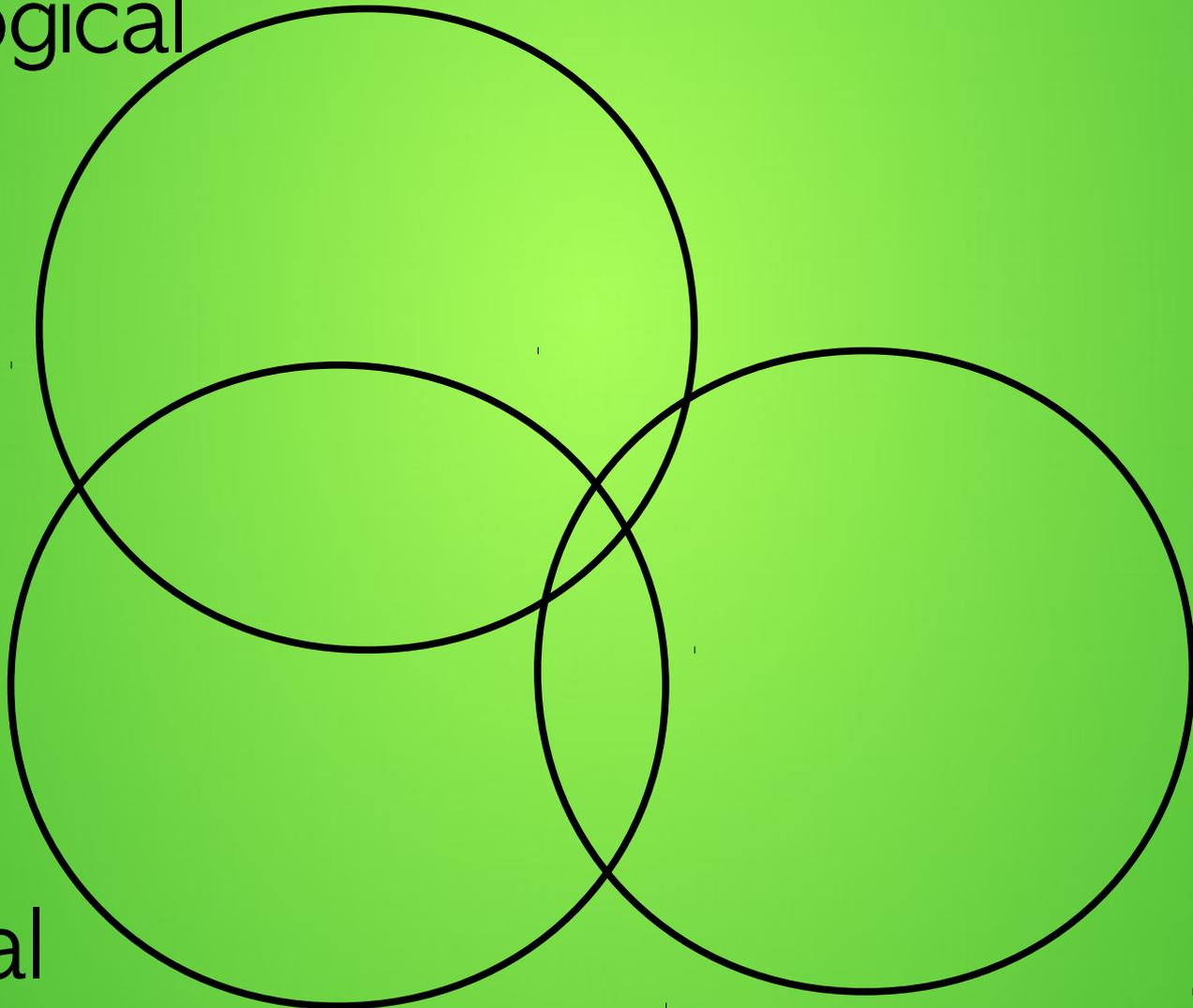
<http://www.fda.gov/ICECI/EnforcementActions/WarningLetters/2012/ucm301382.htm>

Diseases and diagnosis

- Some things come and go by themselves
- Diagnostic tests can yield false positives and sometimes false negatives.
- Functional disorders

Biopsychosocial model

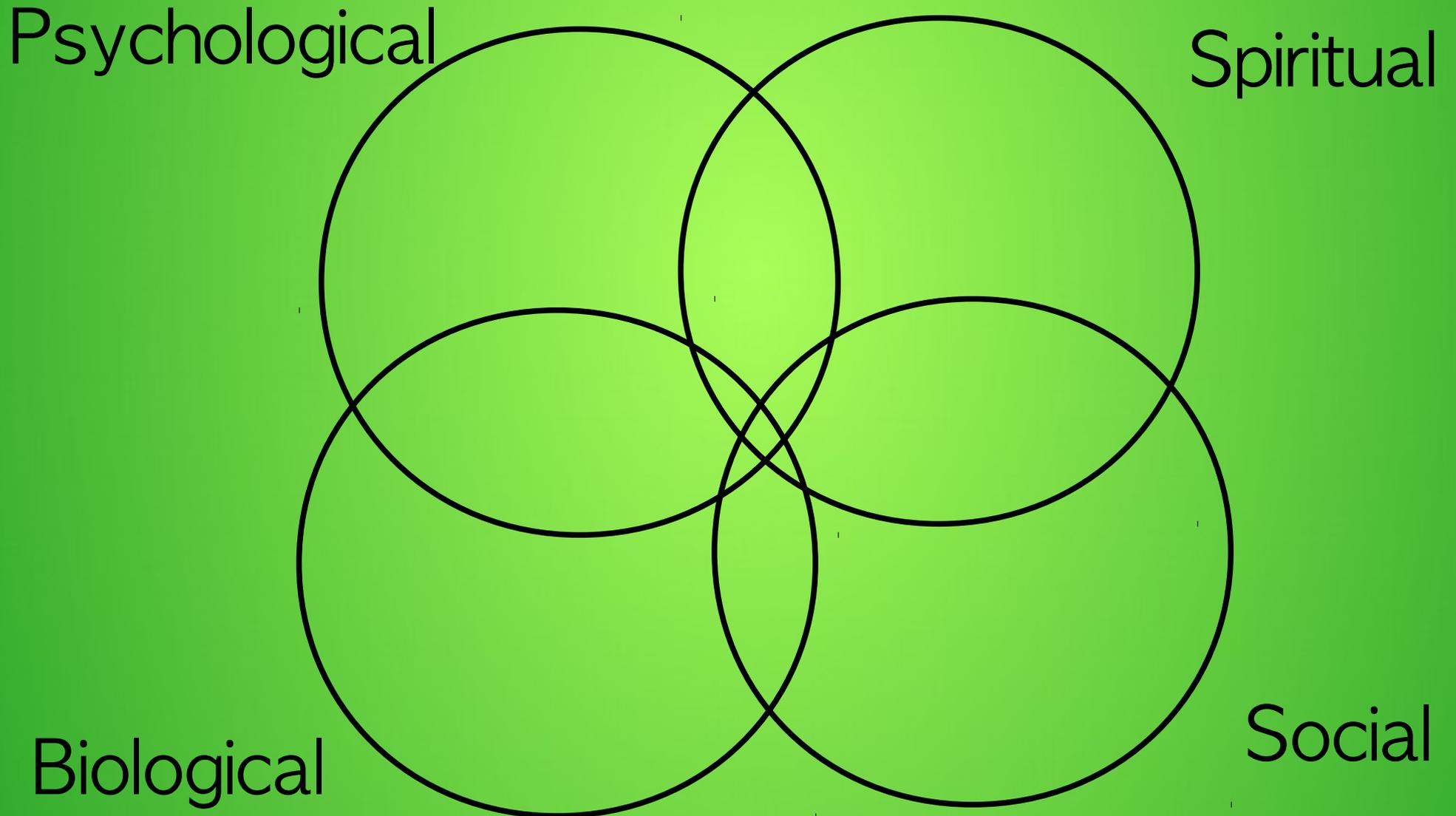
Psychological



Biological

Social

Biopsychosocial model



Evidence Based Medicine

“...integrating individual clinical expertise with the best available external clinical evidence from systematic research”

(Sackett et al, 1996 BMJ 312:71)

Based on what?

- Pure science / indisputable realities
- Theoretical science / practices
- Quality clinical trial and systematic review

Levels of Evidence

Scottish Intercollegiate Guidelines Network SIGN 50: A GUIDELINE DEVELOPER'S HANDBOOK

<http://www.sign.ac.uk/guidelines/fulltext/50/index.html>

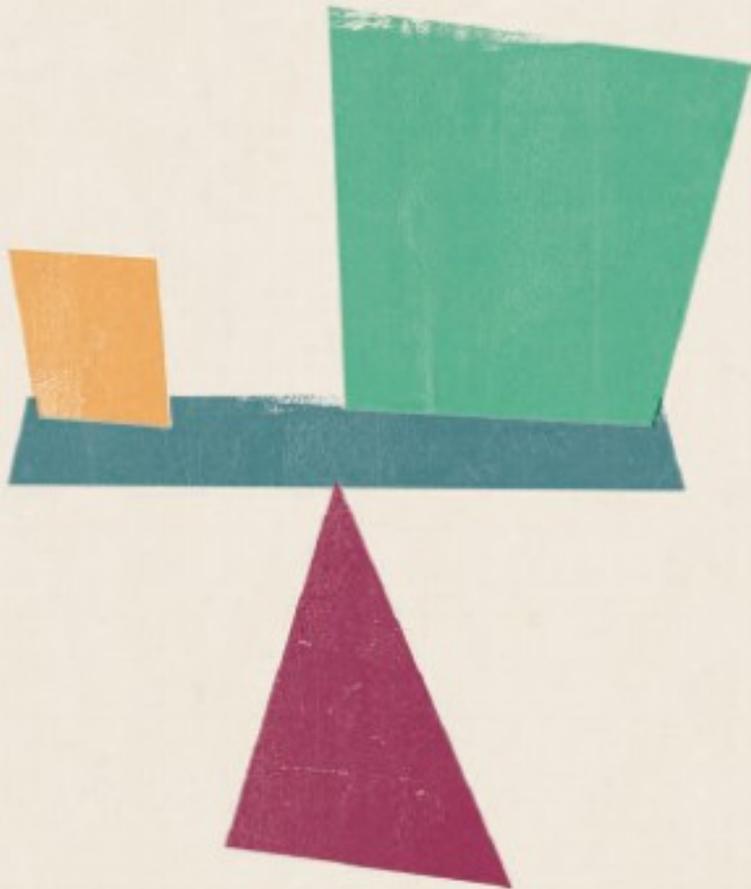
Doust & Del Mar (2004) Why do doctors use treatments that don't work BMJ 2004; 328; 474-5

Foreword by Ben Goldacre — author of *Bad Science*

TESTING TREATMENTS

BETTER RESEARCH FOR BETTER HEALTHCARE

SECOND EDITION



Imogen Evans, Hazel Thornton, Iain Chalmers and Paul Glasziou

www.testingtreatments.org

Drugs to prevent arrhythmias after heart attacks

The reality and theory

- Arrhythmias increase risk of death
- Anti-arrhythmic drugs decrease arrhythmias
- These drugs should decrease early death

The evidence

A 1983 systematic review of 14 trials

*“The theoretical potential ...of anti-arrhythmic drugs
...has not been realised.”*

Furberg CD (1983) The American Journal of Cardiology, 53(60), C32-6

How wrong?

A 1993 systematic review of 51 randomised trials of anti-arrhythmic drugs in heart attack

- 660 deaths in 11,712 patients on drugs
- 571 deaths in 11,517 patients on control

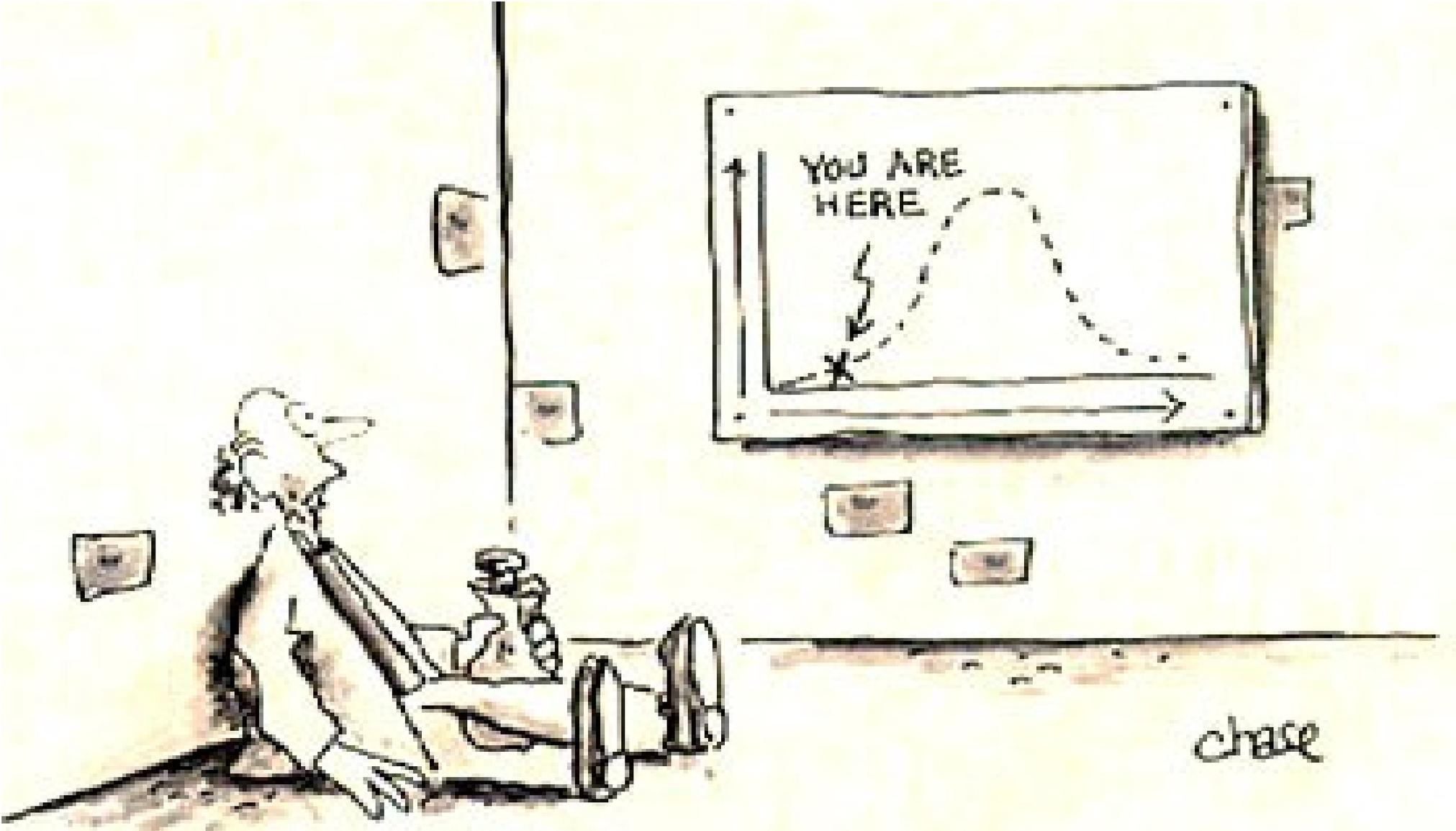
Teo et al (1993) JAMA 270(13):1589-95

The consequence

At their peak use in the late 1980s, these drugs were estimated to cause as many deaths annually as Americans lives lost in the *whole* of the Vietnam war

Moore (1995) Deadly Medicine: Why Tens of Thousands of Heart Patients Died in America's Worst Drug Disaster

Trials



St. Andrew
In Libris & Bibliotheca

TREATISE

in Libris OF THE *Collegii Regii*
Medici Edinburgensis.

SCURVY.

IN THREE PARTS.

Allegii CONTAINING *Prægiu*

An inquiry into the Nature, Causes,
and Cure, of that Disease.

Medicor. Together with *Edinburg.*

A Critical and Chronological View of what
has been published on the subject.

By JAMES LIND, M. D.

Fellow of the Royal College of Physicians in *Edinburg.*

EDINBURGH:

Printed by SANDS, MURRAY, and COCHRAN

For A. KINCAID & A. DONALDSON.

MDCCLIII



Randomised controlled trials

- Randomised
 - With blinded allocation
- Controlled
 - To isolate the intervention of interest
 - Apart from the intervention of interest were the groups treated the same?
 - With similar baseline
- Unbiased
 - Blind patients
 - Blind clinician
 - Blind outcome assessor
- Intention to treat analysis
 - Analysed in the group to which they were assigned



What is a meta-analysis?

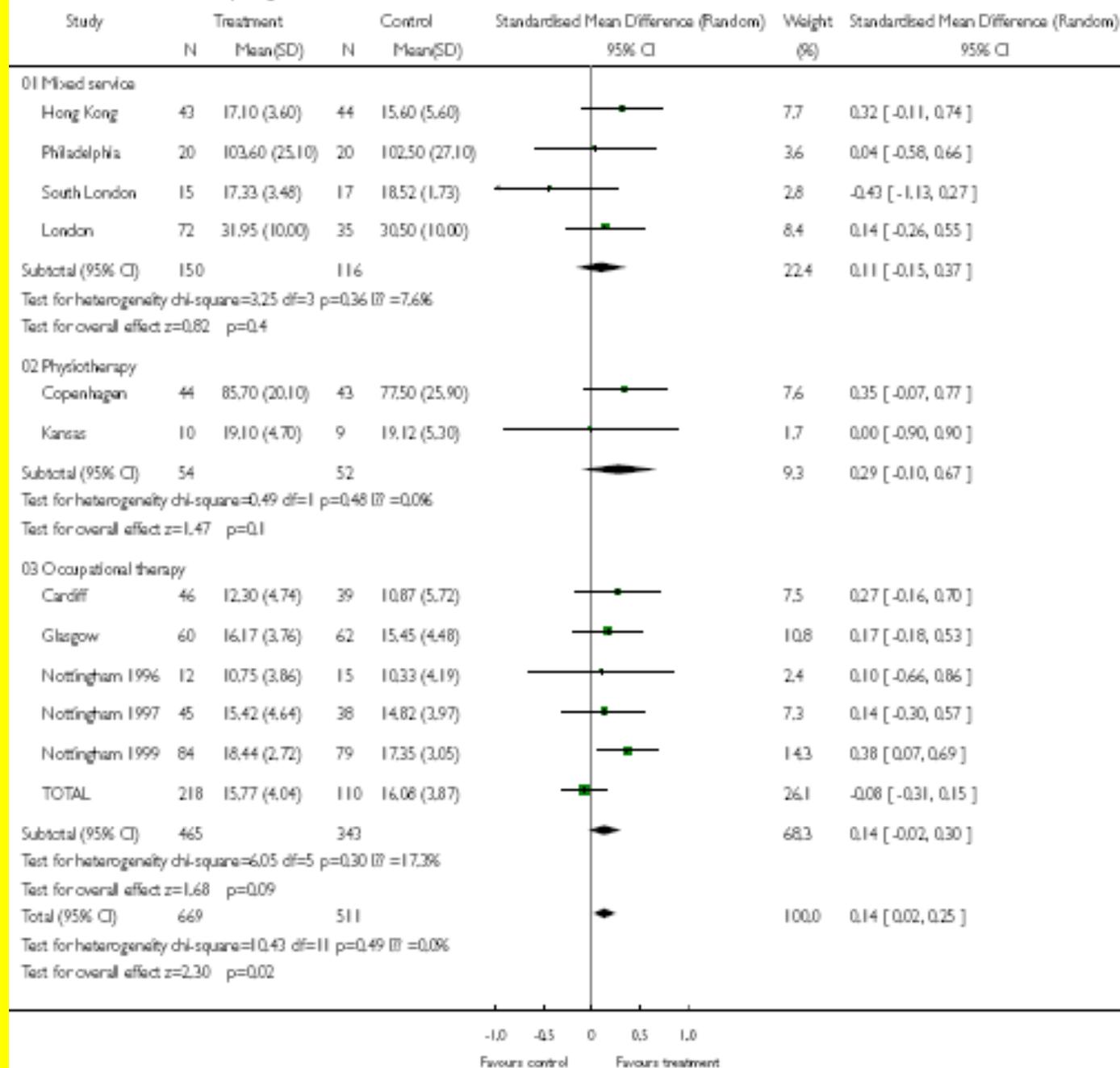
- Statistical technique used to estimate an 'average' or 'common' effect across studies
- Improves the precision of an estimate by using all available data

Analysis 01.05. Comparison 01 Therapy-based rehabilitation vs No routine input, Outcome 05 Activities of daily living score

Review: Therapy-based rehabilitation services for stroke patients at home

Comparison: 01 Therapy-based rehabilitation vs No routine input

Outcome: 05 Activities of daily living score



Comparison and outcome of interest

Analysis 01.05. Comparison 01 Therapy-based rehabilitation vs No routine input, Review of Activities of daily living score

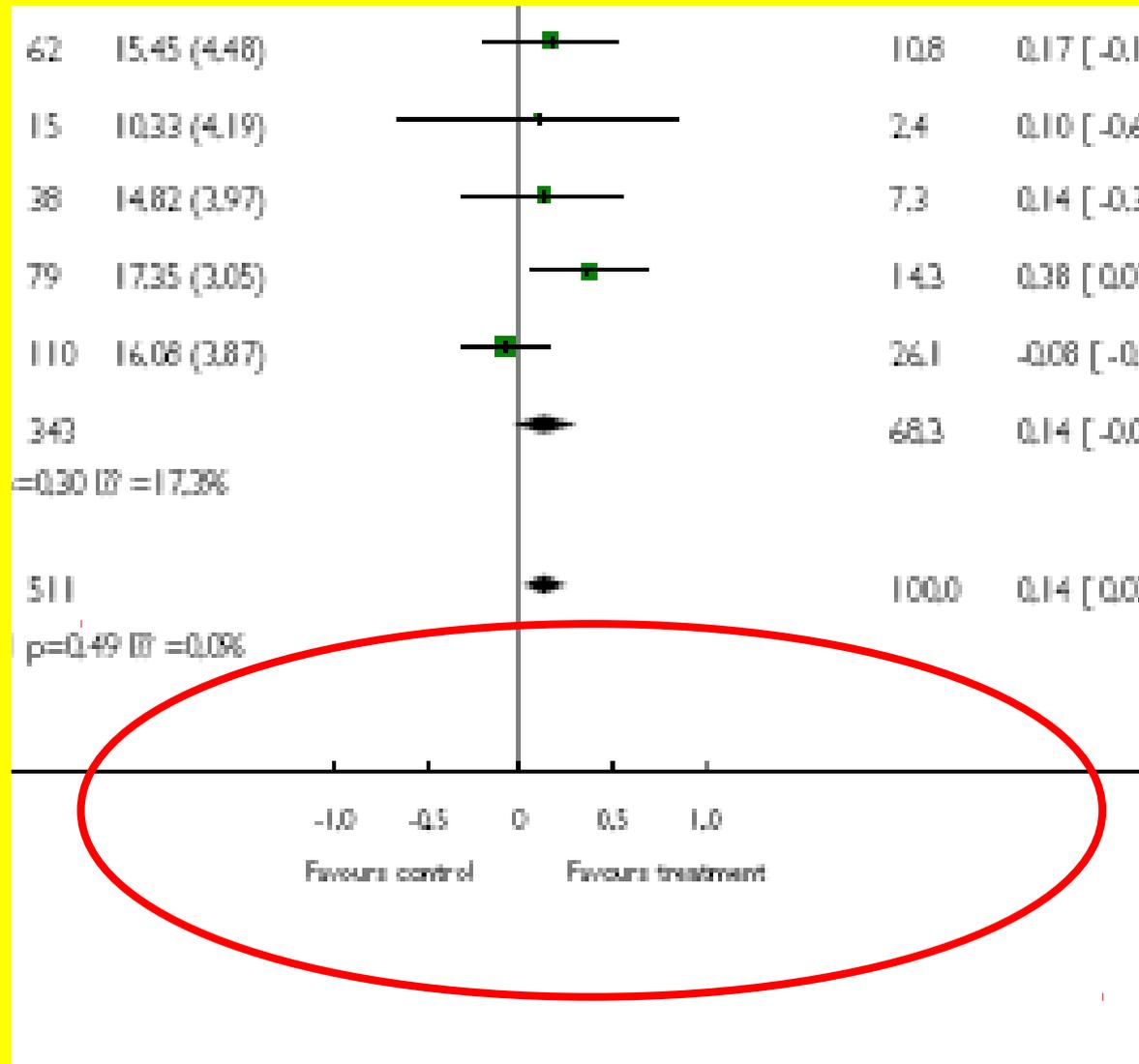
Review: Therapy-based rehabilitation services for stroke patients at home

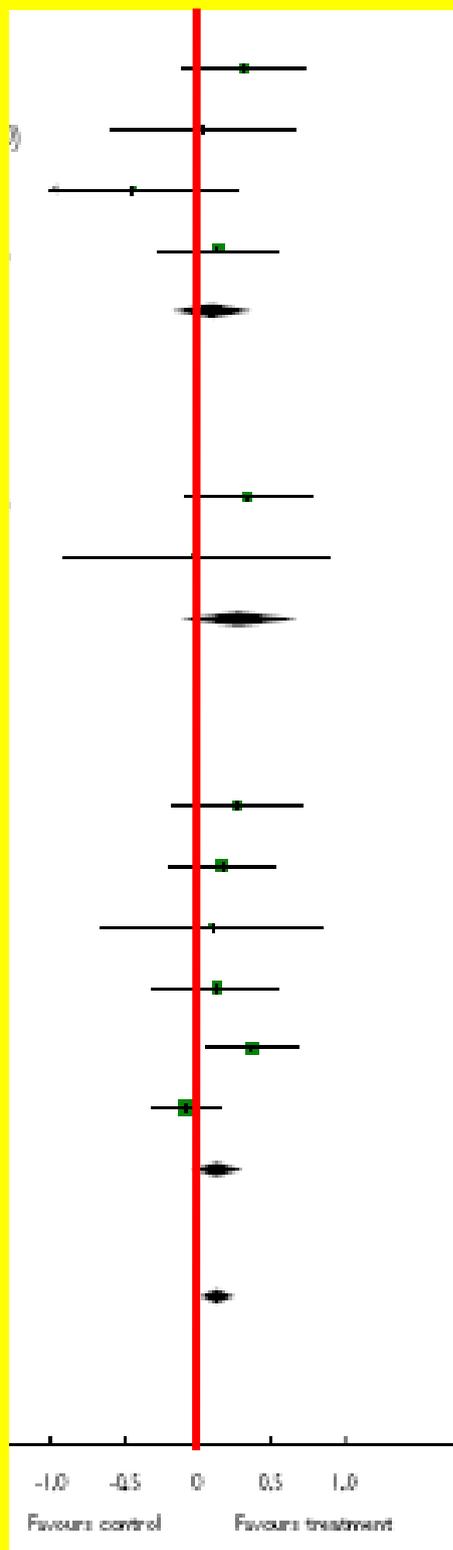
Comparison: 01 Therapy-based rehabilitation vs No routine input

Outcomes: 05 Activities of daily living score

Study	Treatment		Control		Standardised Mean Difference (95% CI)
	N	Mean(SD)	N	Mean(SD)	
01 Mixed service					
Hong Kong	43	17.10 (3.60)	44	15.60 (5.60)	
Philadelphia	20	103.60 (25.10)	20	102.50 (27.10)	
South London	15	17.33 (3.48)	17	18.52 (1.73)	
London	72	31.95 (10.00)	35	30.50 (10.00)	
Subtotal (95% CI)	150		116		
Test for heterogeneity: chi-square=3.25 df=3 p=0.36 I ² =7.6%					
Test for overall effect: z=0.82 p=0.4					
02 Physiotherapy					
Copenhagen	44	85.70 (20.10)	43	77.50 (25.90)	
Kansas	10	19.10 (4.70)	9	19.12 (5.30)	

Treatment effect on the horizontal line





Vertical line is where treatment and control have same effect.

There is no difference between the two.

Study	Treatment		Control		Standardised Mean Difference (Random)		Weight (%)	Standardised Mean Difference (Random)	
	N	Mean(SD)	N	Mean(SD)	95% CI			95% CI	
01 Mixed service Hong Kong	43	17.10 (3.60)	44	15.60 (5.60)			7.7	0.32 [-0.11, 0.74]	

Study ID

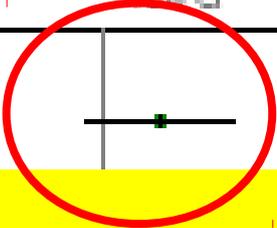
Data for each trial, divided into the experimental and control groups

Percentage weight given to this study in the pooled analysis

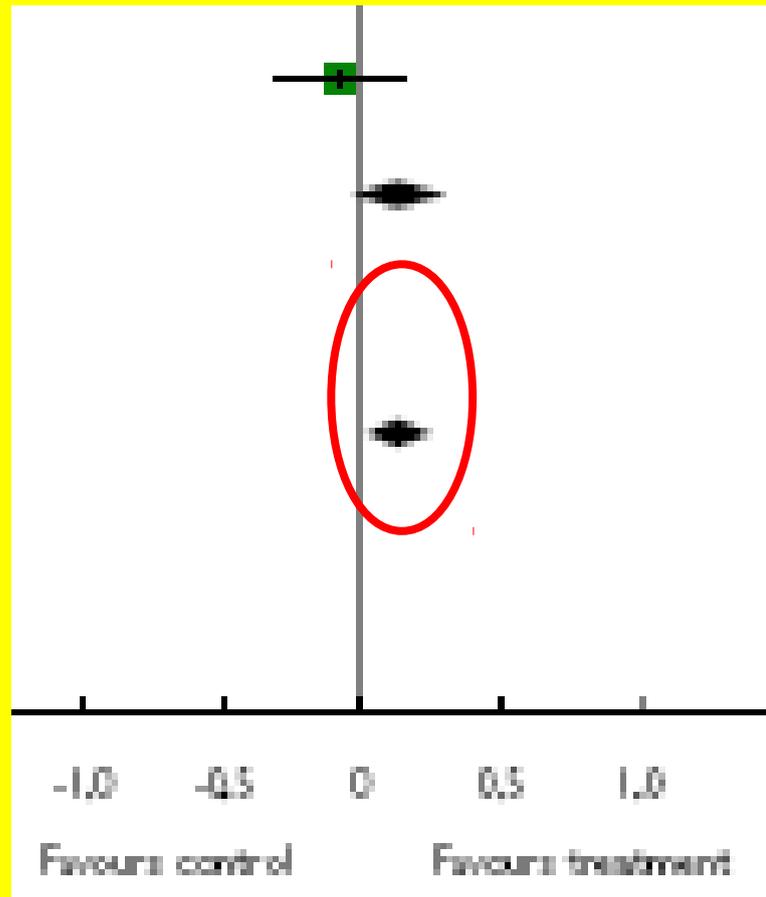
Study	Treatment		Control		Standardised Mean Difference (Random)	Weight (%)	Standardised Mean Difference (Random)
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01 Mixed service Hong Kong	43	17.10 (3.60)	44	15.60 (5.60)		7.7	0.32 [-0.11, 0.74]

Statistic used

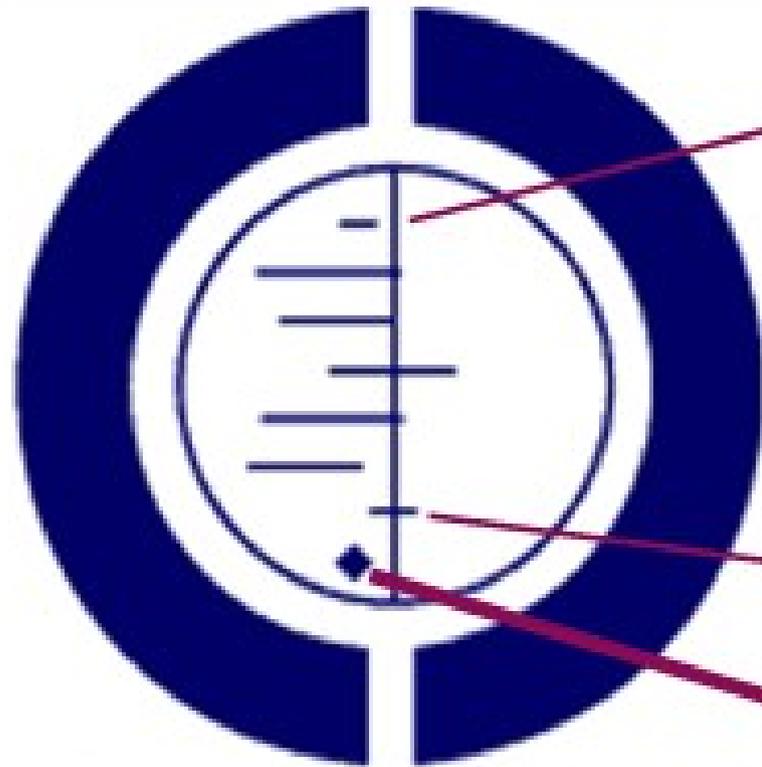
Data also shown numerically

Study	Treatment		Control		Standardised Mean Difference (Random)	Weight (%)	Standardised Mean Difference (Random)
	N	Mean(SD)	N	Mean(SD)	95% CI		95% CI
01 Mixed service Hong Kong	43	17.10 (3.60)	44	15.60 (5.60)		7.7	0.32 [-0.11, 0.74]

- Study has blob placed where data measures effect
- Size of the blob proportional to % weight
- Horizontal line called confidence interval. Measure of how we think result of study may vary with play of chance
- The wider the horizontal line, the less confident we are of the observed effect



Pooled analysis is given a diamond shape where the widest bit in the middle is located at the calculated best guess (point estimate) and the horizontal width is the confidence interval



**THE COCHRANE
COLLABORATION®**

1972 First RCT

Prevention of prenatal
death by antenatal
corticosteroid therapy
for fetal maturation

1991

Meta-analysis:

Steroids **lower** death risk
with **30-50%!!**

So what do we take from all this?

- It's complicated!
- Treatments may be beneficial, harmful, or no effect may be found.
- Quite extraordinary efforts have to be made to determine treatment effects.
- We have to be willing to learn and change.

So can we do a trial of faith healing or intercessory prayer?

Yes / No?

Retrospective / Prospective?

Depends on the result?

WHAT IS PRAYER?

“An unjust measure is an abomination to the LORD but a just measure is his delight”

Proverbs 11v1

Intercessory prayer for the alleviation of ill health

Ten studies are included in this review (7646 patients)

Miracles

“...Jesus of Nazareth, a man attested to you by God with mighty works and wonders and signs”

- Acts 2 v 22

“Miracles” www.donaldmacleod.org

Superstition and Prayer

Psychology

THROUGH THE EYES OF FAITH



David G. Myers &
Malcolm A. Jeeves

We humans are persistently inclined to:

- Perceive relationships where there are none.
- Perceive causal connections among events that are only coincidentally correlated
- Believe that we are controlling events that we are not.

*One does not need a manipulative
conception of prayer to induce God's
involvement in the world;
God is everywhere and at all times
involved"*

Myers DG & Jeeves (1991)

Is it just the faith healing that takes money off people, that is imagined?

So, what of this real faith healing?



Faith produced works

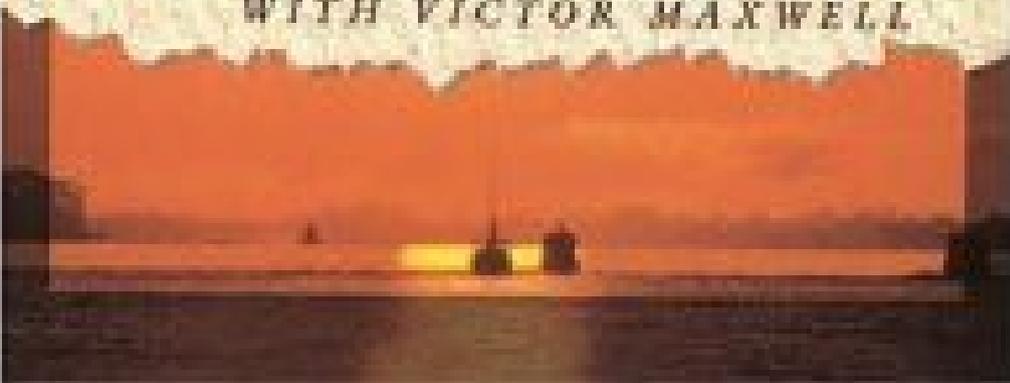
Works of faith

Works that worked

*A thrilling story
of compassion
and faith*

Angel
of the **Amazon**

Dr. BILL WOODS, OBE
WITH VICTOR MAXWELL



Lord passed before him and proclaimed, “The Lord, the Lord, a God merciful and gracious... abounding in steadfast love and faithfulness...”

- Exodus 34 v 6

*God is good,
anyway*

Jonnie 96