

Can the Impact of an Erroneous Review be Corrected?

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Errors in and retraction of:

Murray E et al., Burns J, See TS, Lai R, Nazareth I.

Interactive Health Communication Applications for people with chronic disease

Published: Issue 4, 2004

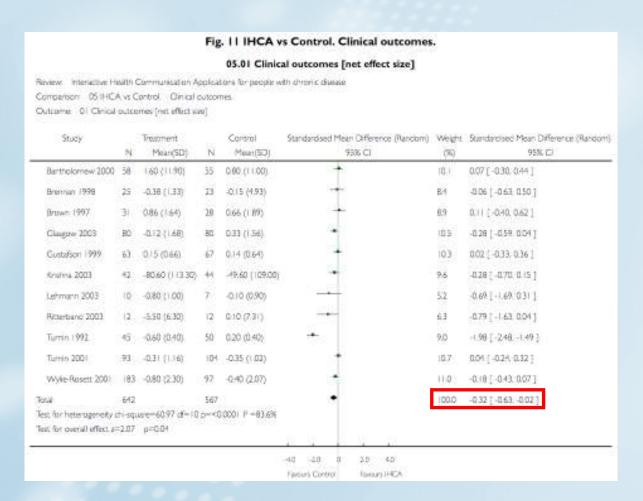
Retracted: 2 weeks later



Summary of the review

- IHCA Interactive Health Communication Applications
- positive effect on knowledge and sosial support
- no effect on self-efficacy and behavioural outcomes





negative clinical effect

 "consumers whose primary aim is to achieve optimal clinical outcomes should not use IHCA"



















Click to get sick? Time, US

Logging on can make you sicker

ABC, Australia

Unhealthy use of internet

Times Online, UK

Why medical advice from the internet can be bad for your health

Telegraph, UK

Beware of internet health advice

Kerala news, India

Warning on internet health advice

BBC, UK

Too Much Advice Could Be Bad for Your Health

HealthCentral, US

Web Not Always Safe Health Source for Some

Forbes, US

Internet medical advice risky

BigNews, US







































Internet makes us sick

Times Online, UK

Value Of Internet Health Advice Questioned

Health Informatics Community, US

Internet health advice makes people sick

FemaleFirst, UK

Is cyber medicine killing you?

HealthSpectrum, US

Web Not Always Safe Health Source for Some

Yahoo!, US

Internet fördert Information und Unvernunft der Patienten

Deutsches Ärzteblatt, Germany

Knowledge May be Hazardous to Web Consumers' Health

Future Brief, US

Strikingly negative effect

NewsMediaZero, US

A Weekly Shot of News and Notes

Washington Post, US

































Cyber medicine could be bad for health Manchester Online, UK

Knowledge May be Hazardous to Web Consumers' Health

Newswise, US

Fears over health 'cures' on the web Scotsman, Scotland

Warning on internet health advice Kazinform, Kazakhstan

Warning on internet health advice OnlyPunjab, India

Too much information bad for your health, study shows

E-Health Insider, UK

Internet-based health information may be hazardous: study

CBC, Canada

Beware of Internet health advises

Pravda, Russia

Warning over bad health advice online

Medical News Today, UK



























Too Much Advice Could Be Bad for Your Health

HealthFinder, US

Knowledge may be hazardous to web consumers' health

EurekaAlert, US

Information overload a net loss to patients

DoctorUpdate, UK

Internet Medical Advice Could Have Unintended Consequences

iHealthBeat, US

Per PC in die Hyperglykämie

Ârztliche Praxis, Germany

Ailments - ignorance is Bliss?

Phenomena, US

So viel Information war nie

Amsel Online, Germany

Sykere av helse på nettet

Forskning.no, Norway

Online-Medizin kann schaden

Netzeitung, Germany











































Wissen kann der Gesundheit schaden

Die Welt, Germany

Blir sykere av nettlegen

Dagbladet, Norway

Warning issued over internet health advice

WebOptimiser, US

Knowledge hazardous to Web consumers' health?

Science Blog, US

Too Much Advice Could Be Bad for Your Health

Health Scout, US

Web users better informed but worse off

The Pharmaceutical Journal, US

Web Not Always Safe Health Source for Some

HON News, Switzerland

























Debate among eHealth researchers

- The caution expressed in the review did not make it to the press release
- The public seemed to believe that Internet have directly negative effects on consumers health
 - Would it have effects on funding?



Methodological problems

- Heterogenous clinical outcomes in the 11 articles
 - functional status+health status+HbA1c+physical functions+astma+bowel accidents+cholestrol+BMI
- Various technologies
 - educational video games, multimedia applications, Internet applications, self-monitoring program, electronic encyclopedia
 - IHCA became Internet in the media
- One single article is making the findings significant
- The results in this meta-analysis are very positive for the traditional health services compared to the new online services
 - Did these positive results have any influence on the review process?



No debate in media

- Even if the results were discussed active by eHealth researchers internally:
 - No debate in mainstream media
 - Is Cochrane's authority making such a debate difficult?
- The authors/Cochrane did not take part in any methodological discussion



Fig. 11 IHCA vs Control. Clinical outcomes.

05.01 Clinical outcomes [net effect size]

Review: Interactive Health Communication Applications for people with chronic disease

Comparison: 05 IHCA vs Control. Clinical outcomes.

Outcome: 0 | Clinical outcomes [net effect size]

Study	Treatment		Control		Standardised Mean	Difference (Random)	Weight	Standardised Mean Difference (Random)
	N	Mean(SD)	Ν	Mean(SD)	95	% CI	(%)	95% CI
Bartholomew 2000	58	1.60 (11.90)	55	0.80 (11.00)	+		10.1	0.07 [-0.30, 0.44]
Brennan 1998	25	-0.38 (1.33)	23	-0.15 (4.93)	+		8.4	-0.06 [-0.63, 0.50]
Brown 1997	31	0.86 (1.64)	28	0.66 (1.89)	-		8.9	0.11 [-0.40, 0.62]
Glasgow 2003	80	-0.12 (1.68)	80	0.33 (1.56)	-		10.5	-0.28 [-0.59, 0.04]
Gustafson 1999	63	0.15 (0.66)	67	0.14 (0.64)	+		10.3	0.02 [-0.33, 0.36]
Krishna 2003	42	-80.60 (113.30)	44	-49.60 (109.00)	-		9.6	-0.28 [-0.70, 0.15]
Lehmann 2003	10	-0.80 (1.00)	7	-0.10 (0.90)	-		5.2	-0.69 [-1.69, 0.31]
Ritterband 2003	12	-5.50 (6.30)	12	0.10 (7.31)			6.3	-0.79 [-1.63, 0.04]
Tumin 1992	45	-0.60 (0.40)	50	0.20 (0.40)	-		9.0	-1.98 [-2.48, -1.49]
Turnin 2001	93	-0.31 (1.16)	104	-0.35 (1.02)	+		10.7	0.04 [-0.24, 0.32]
Wylie-Rosett 2001	183	-0.80 (2.30)	97	-0.40 (2.07)	•		11.0	-0.18 [-0.43, 0.07]
Total	642		567		8.◆		0.00	-0.32 [-0.63, -0.02]
Test for heterogeneity	:hi-squ	are=60.97 df=10	p=<0	.000 2 =83.6%				
Test for overall effect z	=2.07	p=0.04						
					r r r	<u> </u>		
					-4.0 -2.0 0	2.0 4.0		
					Favours Control	Favours IHCA		



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9			- 33				## 	931 939 987
Sugar 200		-0.12 (1.50)					iii.	-0.28 [-0.53, 0.01]
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Xesten 2001			-#				¥A	- 0.2K (- 0.7K, 0.1K)
Lehmum 2000	ij	-0.80 (1.00)	7	40.00 (0.00)			32	-0.00 [-1.00.0031]
Rithermore 2003			ij	0.10 (2.31)			41	070 183 004
Jumin 1992	ä	0.60 (0.10)		030 (040)			9,0	1981 2:9: 1:9:1
Turnin 2001		-0.31 (1.14)		-0.25 (1.02)				001 [-024, 032.]
Wyter Novell 2010			77	12:311 (2:112)				118 114 (1197
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A negative effect (like reduction in HbA1c for intervention group) was interpreted as a negative clinical outcome.



Consequenses

- Withdrawal less than 24 hours after Cochrane was informed about these errors
- Discussion about whether Cochrane should:
 - issue a press release
 - issue a correction while the case was still "hot".
 - contact the media that printed the original story directly to make them print a correction

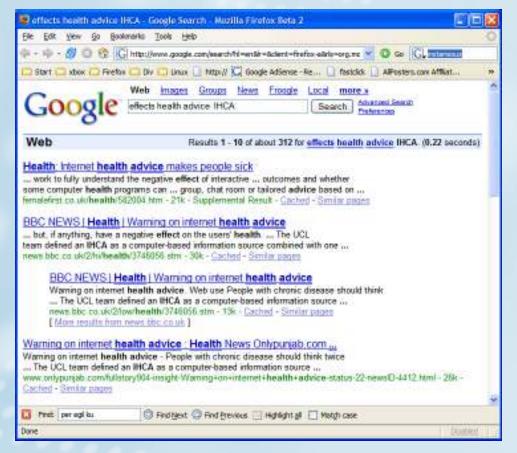


Cochrane's reaction

- No press release followed the retrction
 - Cochrane claimed the original press release were made by University College London and Wiley
- A press statement was issued in December, after some discussion.
 - Vague
 - Not picked up by any media outlets
 - The revised results was said to be expected in April 2005
- No media sources covering the original story was contacted for printing a retraction.
- The revised results were published in October 2005.
- Minimal media coverage



Is the impact corrected?





Is the impact corrected?





Lessons to be learned

- Not to worry about
 - Excellent response time after the errors where reported
 - The coding errors so blatant that it is not likely they will happen again
 - maybe the other methodological problems are more serious?



Lessons to be learned

- Cochrane's authority makes it impossible to discuss methodological weaknesses on a qualitative level
- Surprising results sell best. A boring correction will not get any attention
- Media outlets will not print retractions without their sources telling them to do it.



Lessons to be learned

- Actively seeking media attention to correct the image given to the public would question Cochrane's quality control
- Is it worth risking Cochrane's reputation for correcting these results?
- Is there a ethical obligation to do that?



Thank you!

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