



The small subgroup of children at increased risk, albeit remote, of experiencing an allergic reaction include:

1. Children with an allergy to eggs in whom previous exposure (prior oral ingestion or during vaccination) led to cardiorespiratory reactions. Children who have experienced milder forms of allergic reactions to eggs can be vaccinated safely without additional precautions.

2. Children who have food allergies and active, chronic asthma.¹⁷

This subgroup at increased risk must receive vaccination under medical supervision in a setting where resuscitation facilities and an anaphylaxis management protocol are available. Vital signs should be monitored for 2 hours post vaccination.¹⁸ Any child suspected of having had an allergic reaction to measles or MMR vaccine should be referred to a specialist allergy unit to define the timing and nature of the reaction and to evaluate the possible allergens involved.

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ISSUES IN PRACTICE

What do South African psychiatrists and GPs think, feel and know about evidence-based mental health care?

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In recent years, mental illness has been increasingly acknowledged as a major contributor to morbidity in both the developed and developing worlds.¹ To provide effective mental health care, practitioners require knowledge of advances in detection, assessment and treatment based on the best available evidence. The Internet and advent of electronic publishing mean that clinicians have access to the latest evidence almost

as soon as new research findings are made.² However, the enormous volume of available information can be overwhelming for busy practitioners. In an effort to provide the latest evidence in an accessible format, the Cochrane Collaboration prepares, updates and disseminates systematic reviews of the effects of health care interventions. These reviews attempt to provide answers to health care questions by identifying and appraising all relevant empirical studies and synthesising the results.^{3,4} The reviews are published electronically on a database, The Cochrane Library. The psychiatric field is well represented within the Collaboration and since its inception in 1993, over 130 reviews on psychiatric topics have been published (www.cochrane.org).

In order to inform proposed evidence-based health care (EBHC) training workshops specific to mental health practitioners and to identify appropriate measures of dissemination to this group, we undertook a survey of South African psychiatrists and general practitioners (GPs) with a special interest in mental health regarding their knowledge of, and attitudes towards, evidence-based mental health care (EBMHC).

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What was done

We developed a 16-item questionnaire based on a similar survey of GPs conducted in the UK.⁵ In addition to demographic questions, we ascertained respondents' access to electronic resources, their knowledge and use of web-based resources, and their understanding of epidemiological terminology. Specific content questions recorded participants' levels of agreement with statements about evidence-based psychiatric treatments derived from recent Cochrane systematic reviews. Attitudinal questions allowed participants to rate their levels of agreement against statements regarding practising EBMHC. Participants' preferences for different types of training were also ascertained. Equivocal questions were removed after feedback from specialists in the field of EBMHC.

The questionnaire was posted in March 2001 to all South African psychiatrists and GPs with an interest in mental health whose contact details appear in the Mental Health Resource Guide of South Africa (*N* = 651). The questionnaire was coded with a personal identification number linked to each participant's name which ensured that a reminder letter was sent to non-respondents after 7 weeks. A pre-paid envelope was provided to facilitate responses. All responses were confidential.

What was found

The response rate was 51.1% (168/329) from psychiatrists and 51.8% (167/322) from GPs. Descriptive data are shown in Table I.

Experience in mental health and EBHC

Of the psychiatrists, 67% had over 10 years experience in mental health compared with 49% of the GPs. This was a significant difference ($\chi^2 = 10.99$, *df* = 1, *p* = 0.0009). A minority of both psychiatrists (13%) and GPs (17%) had ever attended an EBHC course.

Access to the World-Wide Web

Almost all psychiatrists (86%) and GPs (81%) had access to the World-Wide Web either at work or at home. Of those who had access, 58% of psychiatrists and 64% of GPs had access at their place of work.

Exposure to EBHC resources

The respondents' awareness and use of EBHC resources are presented in Table II.

Knowledge of epidemiological terminology

The respondents' knowledge of epidemiological terms are presented in Table III.

Table I. Profile of survey respondents

	Psychiatrists		General practitioners	
	N	%	N	%
Total survey population	329		322	
Response rate	168	51.1	167	51.8
Sex				
Male	117	70	105	63
Female	51	30	61	37
Age				
30 years	2	1	13	8
31 - 40 years	51	30	48	29
41 - 50 years	55	33	54	32
> 50 years	60	36	52	31
Year of graduation				
Before 1950	1	1	2	1
1951 - 1960	7	4	6	4
1961 - 1970	28	14	22	13
1971 - 1980	52	31	44	27
1981 - 1990	67	40	59	36
After 1990	13	8	33	20
Place of employment				
Private sector	90	53	111	66
Public sector	34	20	30	18
Both private and public	33	20	19	11
Other	8	5	6	4
Missing	3	2	1	< 1
Work setting				
Rural	7	4	19	11
Urban	134	80	127	76
Mixed	25	15	20	12
Missing	2	1	1	1
Duration of work				
Full-time	147	88	150	90
Part-time	18	11	16	10
Missing	3	1	1	< 1
Years experience in mental health				
< 2 years	1	< 1	29	17
2 - 5 years	9	5	24	14
5 - 10 years	44	26	29	17
> 10 years	113	67	81	49
Missing	1	< 1	4	2
Ever attended an EBHC course				
Yes	22	13	29	17
No	143	86	138	83
Missing	3	2	0	0

Association between previous EBHC training and knowledge of terms

Psychiatrists who had attended an EBHC course in the past were significantly more likely to be able to explain the term 'relative risk' (48%) compared with those who had not (22%) ($\chi^2 = 6.48$, *df* = 1, *p* = 0.011). This association was also significant for the terms 'randomised controlled trial' ($\chi^2 = 6.65$, *df* = 1, *p* = 0.010) and 'systematic review' ($\chi^2 = 9.18$, *df* = 1; *p* = 0.003).



Table II. Awareness and use of evidence-based health care resources

	Unaware		Aware, but not used		Read or use		Helps me in my clinical decision-making	
	N	%	N	%	N	%	N	%
Medline								
Psychiatrists (N = 148)	37	25	44	30	50	34	17	11
General practitioners (N = 146)	79	54	40	27	19	13	8	6
Clinical evidence*								
Psychiatrists (N = 150)	95	63	22	15	20	13	13	9
General practitioners (N = 149)	104	70	24	16	16	11	5	3
Evidence-based medicine*								
Psychiatrists (N = 153)	82	54	34	22	28	18	9	6
General practitioners (N = 158)	84	53	42	27	24	15	8	5
Evidence-based mental health care*								
Psychiatrists (N = 157)	85	54	33	21	26	17	13	8
General practitioners (N = 154)	100	65	35	23	17	11	2	1
The Cochrane Library								
Psychiatrists (N = 153)	89	58	51	34	11	7	2	1
General practitioners (N = 154)	106	69	41	27	6	4	1	< 1

* Journals.

Table III. Knowledge of epidemiology terms

	Not necessary to understand		Want to understand		Some understanding		Understand and could explain to others	
	N	%	N	%	N	%	N	%
Relative risk								
Psychiatrists (N = 159)	0	0	37	23	82	52	40	25
General practitioners (N = 165)	4	2	47	28	71	43	43	26
Confidence intervals								
Psychiatrists (N = 158)	1	< 1	66	42	66	42	25	16
General practitioners (N = 163)	8	5	78	48	49	30	28	17
Randomised controlled trial								
Psychiatrists (N = 157)	0	0	18	11	36	23	103	66
General practitioners (N = 166)	7	4	26	16	57	34	76	46
Systematic review								
Psychiatrists (N = 158)	0	0	31	20	62	40	65	40
General practitioners (N = 164)	4	2	50	30	70	43	40	25
Number needed to treat								
Psychiatrists (N = 157)	0	0	54	34	61	39	42	27
General practitioners (N = 162)	5	3	57	35	50	31	50	31

Among GPs, associations between previous EBHC training and understanding were significant for the terms 'relative risk' ($\chi^2 = 13.25$, $df = 1$, $p = 0.001$), 'confidence intervals' ($\chi^2 = 7.43$, $df = 1$, $p < 0.006$), 'randomised controlled trial' ($\chi^2 = 7.61$, $df = 1$, $p = 0.006$), and 'number needed to treat' ($\chi^2 = 9.78$; $df = 1$, $p = 0.002$).

Knowledge of recent mental health evidence

Sixty-three per cent of psychiatrists and 64% of GPs correctly identified the statement: St John's Wort is more effective than

placebo for short-term treatment of mild to moderate depression,⁵ as being true. There was no significant difference between the two groups. Forty-two per cent of psychiatrists correctly identified the statement: Debriefing is effective in preventing post-traumatic stress disorder (PTSD),⁷ as being false. Fifty per cent believed it to be true and 8% stated that they did not know. Of the GPs, 15% correctly identified the statement as false, 70% believed it to be true and 14% stated that they did not know. The difference between psychiatrists and GPs was significant ($\chi^2 = 29.45$, $df = 1$, $p < 0.0001$).



Attitudes to EBMHC

Patient care. Seventy-four per cent of psychiatrists and 83% of GPs agreed or strongly agreed with the statement that practising EBMHC improves patient care. Only 2% of both groups disagreed or disagreed strongly, with the remainder neutral about the statement. Sixty per cent of psychiatrists and 70% of GPs agreed or strongly agreed that evidence-based guidelines for treating mental disorders are as useful as guidelines for physical disorders.

Research and skills to practice EBMH. The vast majority of psychiatrists (93%) and GPs (86%) agreed or strongly agreed that research findings are useful in their day-to-day practice.

Future training

Over 90% of all respondents would attend EBHC training, with 70% preferring interactive workshops. Lectures and posted reading material were less popular and less than one-third of both groups requested web-based tutorials. Seventy-five per cent of psychiatrists and 84% of GPs stated that they would be more likely to attend training were CPD points to be offered.

Discussion

This survey is one of only a few worldwide to study health practitioners' knowledge, experience of and attitudes towards EBHC.^{5,8} As far as we are aware it is unique in its focus on EBMHC.

Although the overall response rate of 51% is low, the broad demographic profile of the participants suggests that the sample is reasonably representative. The high proportion of specialists and GPs working in the private sector in urban areas reflects the current distribution of doctors across South Africa.⁹ Both groups were very experienced in mental health, with two-thirds of psychiatrists having over 10 years experience in their chosen speciality.

An outstanding finding from this study is that the majority of both psychiatrists and GPs have access to a computer and the Internet, with 50% having access at their place of work. However, the educational opportunities inherent in this finding are countered by the low rate of awareness of electronic and web-based medical decision-making tools. It is alarming that one-quarter of psychiatrists and over half of GPs were unaware of Medline, with less than 10% in both groups using it to inform their decision making. Awareness of The Cochrane Library was extremely limited, with less than 1% in each group using it to inform their decision making. Given the attention paid to the evidence-based medicine movement and Cochrane reviews in journals such as the *British Medical Journal* and the *Lancet* in recent years, we would expect a higher proportion of practitioners to be aware of this resource.

Although the overall understanding of epidemiological terminology was low in both groups, we are encouraged that

those who were unaware showed a willingness to want to understand these terms. Practitioners who had attended prior EBHC training showed significantly higher levels of understanding than those who had not. To date, undergraduate training in epidemiology has been very restricted in medical schools and although postgraduate psychiatric training includes research and statistical methods, this is not a primary focus of specialist training.¹⁰ Assuming that an evidence-based approach results in improved health care, we would argue that it is essential that both psychiatrists and GPs understand basic epidemiological methods and that this shortfall in training be urgently addressed.

It was reassuring that almost two-thirds of respondents were aware that St John's Wort is more effective than placebo for short-term treatment of mild to moderate depression.⁶ This subject has received a lot of attention in the medical literature and the lay press. Although significantly more psychiatrists than GPs were correct regarding the equivocal effectiveness of debriefing for preventing PTSD,⁷ this finding is offset by more psychiatrists getting the answer incorrect than correct! This confusion may reflect the strong promotion of debriefing in recent years. The number of trials included in this review was low, with most trials being of a poor quality. Little to no evidence therefore exists to either support or negate the effectiveness of debriefing at the current time and practitioners should be aware of this when advocating debriefing to prevent PTSD.

Lastly, the findings from this survey confirm that training is required to increase both groups of practitioners' knowledge and understanding of EBMHC. Almost all the respondents were willing to receive training in EBMHC, with over 70% preferring interactive workshops. Training needs to include exposure to basic epidemiological concepts and importantly, must introduce participants to available tools such as electronic databases like Medline and The Cochrane Library.

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