

Mothers' use of and attitudes to BabyCheck

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SUMMARY

A copy of BabyCheck was sent to 497 mothers shortly after the birth of their baby. Six months later they were sent a questionnaire asking about their use of, and attitudes to, BabyCheck. Questionnaires were returned by 323 (65%) mothers; 215 (67%) of them reported reading BabyCheck, the majority found it easy to understand (74%) and agreed with the advice (67%). Eighty-four (26%) of the mothers who returned the questionnaires reported using BabyCheck when their baby was ill: of these, 71% agreed with the advice and 65% trusted the advice. None of the mothers had used the complete range of tests. This led to our conclusion that BabyCheck is well accepted among mothers but is not used routinely as part of mothers' response to illness in their babies. BabyCheck requires introductory education to ensure that parents score all the tests and that the predictive power of BabyCheck is not compromised. Further evaluation of BabyCheck is needed to find its ideal role in the assessment and monitoring of infant illness.

Keywords: *Infant illness, BabyCheck, maternal acceptability.*

Introduction

THE findings from our randomised controlled trial of BabyCheck (an illness scoring system for infants aged 0 to 6 months)¹ concluded that, despite high levels of acceptability, tangible benefits to the parents, babies or health care providers were difficult to detect.² Using a postal questionnaire we investigated the attitudes to, and extent of use of, BabyCheck among the mothers in the trial who received the booklet shortly after the birth of their baby, to investigate the apparently contradictory findings from our trial.

Method

The 497 mothers allocated to receive BabyCheck were sent questionnaires six months after the birth of their baby, asking about use and acceptance of BabyCheck. Analysis compared the views and attitudes of mothers who reported using BabyCheck with those who did not report using the booklet.

Results

Of the 497 mothers who received BabyCheck, completed questionnaires were returned by 323 (65%) mothers: 215 (67%) reported reading BabyCheck. Of the 84 mothers who reported using BabyCheck only when their baby was ill, 14 (17%) used it every time, 16 (19%) most of the times, and 53 (64%) sometimes. Mothers who reported using BabyCheck did not differ significantly from mothers who did not, except that fewer depression cases were identified among the BabyCheck users (Table 1). Mothers who used BabyCheck also used the health service more frequently.

None of the mothers had used BabyCheck without missing at least one test: most commonly the anal temperature measurement was replaced by another method, e.g. using a forehead strip thermometer. The tests for inguinal hernia and recession were also frequently omitted. Stated reasons for missing tests included a judgement that they were not relevant to the baby's condition at the time of assessment.

Mothers who had read BabyCheck ($n = 215$) were asked about their attitudes to the advice given in BabyCheck (Table 2). BabyCheck was well accepted, with most mothers finding it easy to understand (159, [74%]) and a small majority (114, [53%]) stating they would recommend it to a friend. The influence of BabyCheck on the parent's response to illness was less clear, with only 84 (39%) reporting they had actually used it. Of the 84 BabyCheck users, 35 (42%) agreed that it helped them to look after the baby at home without consulting a health professional and 25 (30%) agreed that BabyCheck made them feel that they should take their baby to the doctor.

Discussion

Our study found that, although BabyCheck was well accepted by mothers, it was unlikely to be integrated as part of a

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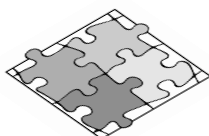
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HOW THIS FITS IN*What do we know?*

BabyCheck, an evidence-based illness scoring system, has been shown to be widely accepted and easy to understand across the social spectrum, although it is unclear whether it influences consultation patterns. There has been interest in distributing BabyCheck routinely to new mothers to improve the detection of serious illness. This has been accompanied by concerns that distribution and use of BabyCheck may cause unnecessary anxiety among parents.

What does this paper add?

Although BabyCheck is well received and easy to understand, it is not incorporated into mothers' assessment of their baby's illness. BabyCheck is unlikely to influence decisions to seek medical help when distributed without accompanying reinforcement from health practitioners. BabyCheck was never used as a complete scoring system, weakening the predictive power of assessment. There is no suggestion that BabyCheck increases anxiety among mothers.



mother's response to common symptoms in young infants, with few mothers using it when their baby was ill. Mothers who used Babycheck missed out some of the tests and substituted a different measure of temperature rather than rectal measurement: Kai also found that parents substituted other temperature measurement methods.³

BabyCheck is based on a sophisticated regression analy-

sis and the resulting scores will not have the same sensitivity and specificity for detecting acute illness in infants unless all tests are completed as recommended and the scores summed. Thornton and colleagues pointed out that mothers need to be familiar with assessment if they are to be able to use BabyCheck appropriately,¹ suggesting that health professionals are important in training parents in addition to endorsing the booklet.

The mothers who reported using BabyCheck had consulted their general practitioner (GP) more frequently with their babies than those who had not used it. We have insufficient data to fully explore this finding, but can suggest a number of possible interpretations. Either BabyCheck could have encouraged mothers to take their babies to the GP, or the mothers of more severely ill babies were more likely to consult BabyCheck as a result of concern for their babies, or there might be a group of parents who are 'high help seekers', that is they were more likely to use help from a variety of sources regardless of the severity of illness of their babies.

A large number of mothers in our study were classified as emotionally distressed, similar to the prevalence in another survey of women in Glasgow.⁴ We found no significant difference in the proportion of anxiety cases among users of BabyCheck and non-users; nor did the proportion differ among women in the trial control group who did not receive BabyCheck (Table 1). We did not therefore find any evidence that BabyCheck raised anxiety levels, but nor did we find evidence that BabyCheck offered tangible reassurance. The difference in the levels of depression between users of

Table 1. Characteristics of mothers who reported using BabyCheck and those who did not.^a

	BabyCheck users <i>n</i> = 84	Non-users <i>n</i> = 229	Statistical test
Socio-economic status			
Affluent	23 (27%)	88 (38%)	$\chi^2 = 2.58$ df = 2 <i>P</i> = 0.28
Intermediate	28 (33%)	71 (31%)	
Deprived	33 (39%)	70 (31%)	
Parity			
Primiparous	36 (44%)	102 (45%)	$\chi^2 = 2.24$ df = 1 <i>P</i> = 0.52
Multiparous	45 (56%)	122 (54%)	
missing = 3		missing = 5	
Age	median = 29 IQR = 24 to 34 missing = 4	median = 30 IQR = 26 to 33 missing = 7	Mann-Whitney <i>z</i> = -1.00 <i>P</i> = 0.32
Age finished full time education (years)	median = 18 IQR = 16 to 21 missing = 0	median = 17 IQR = 16 to 21 missing = 0	Mann-Whitney <i>z</i> = -1.69 <i>P</i> = 0.091
HADS caseness (>10)			
Anxiety case ^b	18 (21%)	62 (27%)	$\chi^2 = 0.52$ df = 1 <i>P</i> = 0.47
Non-case	66 (79%)	167 (73%)	
Depression case	5 (6%)	33 (14%)	$\chi^2 = 5.86$ df = 1 <i>P</i> = 0.02
Non-case	79 (94%)	196 (86%)	
Health service use (GP consultations in 6 months)	median = 3 IQR = 2 to 6 missing = 11	median = 2 IQR = 1 to 4 missing = 13	Mann-Whitney <i>z</i> = -2.16 <i>P</i> = 0.03

^a 323 mothers returned questionnaires but 10 mothers did not make it clear whether they had used BabyCheck or not, and so are not included in this table. ^b 85 of the 299 (27%) mothers in the randomised controlled trial control group who responded to the questionnaire at six months were found to be HADS anxiety cases.

Table 2. Attitudes to reading and using BabyCheck.

	Agree <i>n</i> (%)	Neither agree nor disagree <i>n</i> (%)	Disagree <i>n</i> (%)	Missing ^a
Reading BabyCheck (<i>n</i> = 215 who reported reading it)				
BabyCheck gives the wrong advice	11 (5)	39 (18)	145 (67)	20
BabyCheck is especially helpful for first-time mothers	145 (67)	32 (15)	18 (8)	20
BabyCheck reassured me about my baby's health	94 (44)	79 (37)	22 (10)	20
BabyCheck made me think I should not take my baby to the doctor	45 (21)	74 (34)	74 (34)	22
BabyCheck is difficult to understand	7 (3)	29 (14)	159 (74)	20
I would recommend BabyCheck to a friend	114 (53)	51 (24)	29 (14)	21
Using BabyCheck (<i>n</i> = 84 who reported using it)				
I agreed with the scores and advice in BabyCheck	60 (71)	17 (20)	5 (6)	2
BabyCheck made me feel that I should take my baby to the doctor	25 (30)	25 (30)	32 (38)	2
I trusted the scores and advice in BabyCheck	55 (65)	20 (24)	6 (7)	3
I found BabyCheck difficult to use	3 (4)	8 (10)	71 (84)	2
BabyCheck did not help me to know when my baby was unwell	10 (12)	16 (19)	56 (67)	2
BabyCheck helped me look after baby at home without asking my doctor or health visitor for advice	35 (42)	19 (23)	28 (33)	2
BabyCheck made me anxious about the health of my baby	10 (12)	19 (23)	54 (64)	1
I would not use BabyCheck again	7 (8)	10 (12)	66 (79)	1

^a20 mothers omitted this section of the questionnaire.

BabyCheck and non-users could suggest that depressed mothers may be less likely to engage with decision support tools such as BabyCheck; we suggest that this is an issue which would merit further investigation.

Despite the lack of evidence for the benefit of BabyCheck, it is already distributed by some health authorities and the Royal College of General Practitioners incorporates the tests in its education leaflet for parents. Our findings support the view that routine distribution of BabyCheck requires additional resources to ensure that parents use the scoring system appropriately. Further work is clearly necessary to find BabyCheck's ideal role in the assessment and monitoring of infant illness.

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