

Primary care



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Should health professionals screen women for domestic violence? Systematic review

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Abstract

Objective To assess the evidence for the acceptability and effectiveness of screening women for domestic violence in healthcare settings.

Design Systematic review of published quantitative studies.

Search strategy Three electronic databases (Medline, Embase, and CINAHL) were searched for articles published in the English language up to February 2001.

Included studies Surveys that elicited the attitudes of women and health professionals on the screening of women in health settings; comparative studies conducted in healthcare settings that measured rates of identification of domestic violence in the presence and absence of screening; studies measuring outcomes of interventions for women identified in health settings who experience abuse from a male partner or ex-partner compared with abused women not receiving an intervention.

Results 20 papers met the inclusion criteria. In four surveys, 43-85% of women respondents found screening in healthcare settings acceptable. Two surveys of health professionals' views found that two thirds of physicians and almost half of emergency department nurses were not in favour of screening. In nine studies of screening compared with no screening, most detected a greater proportion of abused women identified by healthcare professionals. Six studies of interventions used weak study designs and gave inconsistent results. Other than increased referral to outside agencies, little evidence exists for changes in important outcomes such as decreased exposure to violence. No studies measured quality of life, mental health outcomes, or potential harm to women from screening programmes.

Conclusion Although domestic violence is a common problem with major health consequences for women, implementation of screening programmes in healthcare settings cannot be justified. Evidence of the benefit of specific interventions and lack of harm from screening is needed.

Introduction

Violence against women by male partners and ex-partners is a major public health problem, resulting in injuries and other short term and long term health

consequences, including mental illness and complications of pregnancy. Exposure of children to domestic violence results in emotional, behavioural, and health problems.¹ The response of health services to domestic violence is an international priority.² In the United Kingdom many organisations of health professionals have published guidelines or recommendations.³⁻⁸ These guidelines are not identical, but they all emphasise the prevalence of domestic violence and advocate recognition, assessment, and referral within and beyond the health service. The Department of Health in England now recommends that health professionals should consider "routine enquiry" of some or all women patients for a history of domestic violence.⁹ This is essentially a recommendation to screen women for domestic violence in healthcare settings and echoes longstanding recommendations of organisations and accreditation bodies in North America.¹⁰

Implicit in these recommendations to undertake screening is the assumption that this will increase identification of women who are experiencing violence, lead to appropriate interventions and support, and ultimately decrease exposure to violence and its detrimental health consequences, both physical and psychological. These assumptions underlie the justification for conventional screening for the premorbid or early stage of a disease. A further assumption of the recommendations is that health professionals and female patients alike will not object to the screening process. In this review we test these assumptions.

Methods

Identification of primary studies

We used medical subject headings and text words to search for studies on three bibliographic databases: Medline, Embase, and CINAHL (from the start of the databases to February 2001). The specific search terms differed between the databases, but were comparable. The search strategy that we used for Medline is available on bmj.com. We found 2520 potentially relevant English language studies with online abstracts.

One of the reviewers applied the study inclusion criteria (table 1) to the 2520 abstracts; 2228 abstracts did not meet the criteria and were excluded at this early stage. We eventually retrieved 112 full papers. Twenty papers (reporting on 17 studies) met the inclusion criteria¹¹⁻³⁰; we excluded the remaining 92 papers (table 2).

Table 1 Criteria for inclusion of primary studies in the review

Attitudes to screening	Increasing identification	Interventions to improve outcomes
Study setting and participants		
Conducted in any setting	Conducted in healthcare setting	Conducted in any setting, but woman originally identified in healthcare setting
Women in general	Women presenting for care	Women identified as experiencing domestic violence
Any health professional		
Design		
Quantitative cross sectional surveys	Fully randomised controlled trials with participants randomly allocated to intervention and control groups	
	Studies using a "before and after" matched parallel groups design, in which assignment to groups is not random	
	Studies using an "after only" matched parallel groups design, in which the process of assignment to groups is not random	
	Time series studies with different samples, in which women receiving care before intervention act as comparison group (historical controls)	
	Time series studies using the same sample, in which women receiving intervention act as their own historical controls	
	Comparison of screening versus non-screening method of identification (exclude studies comparing two screening methods)	
Objectives		
Attitudes of all women sought (not just those at high risk)	Intention of study is to screen all women (not just those thought to be at higher risk); identification of women experiencing domestic violence	Investigation of women centred interventions (behavioural, psychological, educational)
Attitudes of any health professional elicited	Investigation of any method of screening to increase identification rates (including educational interventions targeted at clinicians)	Investigation of health services interventions aiming to increase referrals, information giving, or forms of support
Types of outcome measures		
Attitudes to the screening of all women in healthcare settings	Rates of identification of domestic violence	Any of the following: <ul style="list-style-type: none"> ● Domestic violence incident rates ● Quality of life and scores on other psychosocial measures ● Use of safety behaviours ● Use of health and community resources ● Rates of domestic violence referrals ● Information giving

Data extraction and analysis

We applied the results of the studies to three review questions: Do women patients and health professionals find screening for domestic violence acceptable? Do screening programmes increase the identification of women who are experiencing domestic violence? Do interventions with women identified in healthcare settings improve outcomes? We did not combine the results of the studies because of the heterogeneity of interventions, outcomes, and populations. In our narrative analysis we consider the results in relation to the design and quality of the studies.

Results

We found few good quality studies that addressed our review questions. Generally, details of methods, interventions, and results were poorly described in the papers we reviewed. We did not find any randomised controlled trials of interventions based in healthcare settings to improve outcomes. The range of outcomes was limited, and no studies measured potential risk to women of identification from screening in healthcare

settings and subsequent management by health professionals. Another potential limitation of the primary studies, from the perspective of European healthcare policy, is their geographical distribution: most were from North America, with three papers from Australia or New Zealand.

Attitudes of women and health professionals to screening

Details of the five studies assessing attitudes to screening are available on bmj.com. Four studies elicited the views of women patients about screening.¹¹⁻¹⁴ In two of these studies three quarters or more of the respondents thought that routine screening was acceptable, with no significant difference between abused and non-abused respondents.^{11, 12} In the other two studies just under half of all women found screening acceptable,^{13, 14} with abused women in one of the studies being one and a half times more likely to favour this course of action.¹⁵ The heterogeneity of these results may be partly explained by the wording of the question about screening in the different surveys. In particular, the two studies reporting lower acceptability

Table 2 Summary of papers retrieved and reasons for exclusion

	Attitudes of women and health professionals to screening for domestic violence	Identification of women experiencing domestic violence	Interventions to assist women experiencing domestic violence
No of papers retrieved for detailed evaluation	53	36*	27*
Excluded papers (single main reasons)	No specific question about acceptability of screening (n=44) Not a quantitative study (n=4)	No baseline or comparison rates (n=10) Validation study or comparison of two screening methods (n=8) Prevalence study only (n=3) Subset of high risk women (n=3) Insufficient detail (n=1) Guidance only (n=1)	Not initiated in a healthcare setting (n=11) No baseline or comparison rates (n=3) Background information only (n=2) Main outcomes relate to health professionals (n=1) Intervention not specific to domestic violence (n=1)
No of papers included in review	5	10*	9*

*Four papers applicable to both identification and intervention questions.

asked if screening at all consultations was acceptable,^{13 14} whereas the studies reporting a higher acceptability asked a more general question.^{11 12} As far as health professionals are concerned, one study of primary care physicians in New England found one third to be in favour of routine screening.¹¹ In a study of emergency department nurses 53% responded that nurses should routinely screen all women for a history of domestic violence.¹⁵

Identification of women experiencing domestic violence

Our conclusions regarding identification of women experiencing domestic violence are drawn from nine studies (10 papers).¹⁶⁻²⁵ Details of these studies are available on bmj.com. The studies were mostly based in the United States, with one each in Australia, New Zealand, and Canada. Most of the studies tested the effect of applying a screening protocol containing up to five questions about abuse to all women presenting in emergency departments, primary care facilities, or antenatal clinics. Baseline rates of identification were mostly in a range of 0-3%.

Screening produced an increase in rates of identification in eight of the studies, but not in the study with the strongest design.¹⁷ Screening typically resulted in doubling of identification rates, but larger effect sizes were detected in three of the studies.^{16 23 25} The most robust of the parallel group studies measured a seven-fold increase in the identification of abused women, although the small sample size resulted in wide confidence intervals for this estimate (odds ratio 6.78, 95% confidence interval 2.5 to 14.6).²⁵ Most of the studies did not monitor identification rates beyond an initial measurement after the screening protocol or programme had been implemented. One study that did measure identification rates in an emergency department one year after implementation of a protocol found that an initial improvement in comparison with a control department was not sustained.²² Screening programmes that provided substantial additional educational and training sessions for staff did not identify a higher proportion of women experiencing abuse.^{17 21 22} Programmes with multiple screening questions did not produce larger effects than those using single questions.^{17 23-25}

Interventions for women experiencing domestic violence

Six studies (nine papers) fulfilled our criteria—five from the United States^{18 25-30} and one from New Zealand.^{21 22} Details of these studies are available on bmj.com. None was a randomised controlled trial, the method least prone to bias for testing the effectiveness of a health service intervention. The interventions in antenatal clinics,^{25 28-30} primary care,^{18 26} and emergency departments^{21 22 27} included advice about services, advocacy, and counselling. We found no relation between type of intervention or type of healthcare setting and the effect of the intervention on measured outcomes.

Only two of the studies measured rates of domestic violence as outcomes.^{27 30} The more robust of these, which used a parallel group design and adjusted for differences in baseline rates and potential confounding factors, detected a reduction of physical and non-physical abuse with counselling and advocacy support for women identified in antenatal

clinics.³⁰ The other study that measured violence as an outcome was based in an emergency department.²⁷ The investigators used a weaker (time series) design and measured visits to an emergency department for injury from domestic violence rather than reports from participants. The study did not detect a reduction in violence to participants after an advocacy based intervention.

Four studies measured referral to other agencies,^{18 21 25 26} and all but one found increased referral.

Discussion

We found that about half to three quarters of women patients in primary care responding to surveys think that screening for domestic violence in healthcare settings is acceptable, with a higher proportion among women who have experienced abuse. In two surveys of health professionals only a minority of doctors and half of nurses were in favour of screening. A recent study in the United Kingdom, published after the time limit of this review, also found that a minority of health professionals wish to screen women for a history of domestic violence.³¹ A systematic review of studies of barriers to screening for domestic violence found that healthcare professionals gave a range of reasons for not routinely asking women about domestic violence: lack of education in or experience of screening, fear of offending or endangering patients, lack of effective interventions, patients not disclosing or not complying with screening, and limited time.¹⁰

In our review we found that screening programmes generally increased rates of identification of women experiencing domestic violence in antenatal and primary care clinics and emergency departments. This concurs with Waalen et al's review of studies evaluating interventions designed to increase screening for domestic violence.¹⁰ That review also included interventions that consisted solely of education of professionals, without specific screening protocols or questions; educating professionals about domestic violence did not result in increased identification of women experiencing abuse. On the whole, the magnitude of improved identification as a result of a screening programme was modest, and we found no evidence that the improvements were sustained, as most of the studies did not measure rates beyond initial implementation.

We found little evidence for the effectiveness of interventions in healthcare settings with women who are identified by screening programmes. Randomised controlled trials are lacking, as are studies that measure important outcomes for participants, such as quality of life or mental health status. Rates of referral to outside agencies are not a convincing proxy. The primary studies we reviewed did not measure possible harm that may result from interventions initiated in healthcare settings.³²

Quality of primary studies

The screening studies and intervention studies that we reviewed had substantial methodological weaknesses. All but one relied on parallel group or longitudinal designs. Most were underpowered, with only five out of nine identification studies and one out of six interven-

tion studies justifying their sample size. No study considered possible bias in measuring outcomes. Generally, papers gave insufficient detail about data collection and analysis and about the content of the screening programme or intervention. Despite these weaknesses in the primary studies, we can still conclude that a screening protocol or programme will probably increase identification, at least in the short term, and that little evidence exists for the effectiveness of interventions.

Conclusions

From the studies we reviewed, even without considering all the criteria for a screening programme, we conclude that it would be premature to introduce a screening programme for domestic violence in healthcare settings. We know that introducing a programme is likely to increase the number of women experiencing domestic violence who are identified by health professionals, but not that subsequent interventions are effective. In order to base healthcare policy for domestic violence on evidence of safety and effectiveness we need to answer several research questions (box). In particular, research funders should give priority to randomised controlled trials of interventions in healthcare settings to test their effectiveness and safety for women and their families.

Our conclusions about the effectiveness of screening should not be interpreted as a denial of domestic violence as an important issue for healthcare providers.³³ Debate is taking place among physicians in the United States regarding the validity of policies on domestic violence, partly because of lack of evidence for the effectiveness of screening.³⁴ However, a strong consensus exists among healthcare organisations internationally that doctors and nurses should not abandon the goal of identifying and supporting women experiencing domestic violence. The high prevalence and severity of the problem and the views of women themselves require a response from health services. Health professionals need education and training to remain aware of the problem if they are to recognise women who experience domestic violence.³⁵⁻³⁹ Health services, local authorities, and the police need to coordinate their responses to domestic violence, but research is essential to develop and evaluate interagency policies. Finally, women's organisations have been instrumental in raising public and institutional awareness of domestic violence. These organisations should be involved in future policy deci-

Research questions

- What are the benefits and risks to women of screening for domestic violence in healthcare settings?
- What is the most effective screening interval?
- What is the effect of participation in interventions such as provision of advocacy support on women experiencing domestic violence identified in healthcare settings?
- What are the training needs of health professionals in relation to domestic violence?
- How can we promote better multi-agency working in this area?

What is already known on this topic

Around one quarter of women in the United Kingdom have been physically assaulted by a current or former male partner

Screening for domestic violence in healthcare settings is the policy of many health professional bodies in the United States

The Department of Health recommends that health professionals should consider "routine enquiry" of women patients about whether they have experienced domestic violence

What this study adds

Screening by health professionals increases the identification of domestic violence, and many women do not object to being asked

Most health professionals surveyed do not agree with screening of women in healthcare settings

Insufficient evidence exists to show whether screening and intervention can lead to improved outcomes for women identified as abused

Implementation of screening programmes in healthcare settings is not justified by current evidence

sions and the development of health service based interventions.

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A memorable patient Sleep deprivation

The effects of sleep deprivation are well known. For junior hospital doctors, they are not only well known but frequently experienced, and crossing the divide between knowledge and experience can be an astonishing journey.

The casualty department in the hospital where I was a young house physician many years ago had no casualty officer overnight and was covered by the house physicians and surgeons in rotation. The hospital served an area where flats and "bedsitters" accommodated large numbers of young people, many of whom were deeply unhappy and confused about life. On average three patients who had taken drug overdoses were seen in casualty each day, and we junior doctors were all too familiar with "the pump," as the stomach washout apparatus was known.

It was about 5 am on a Monday morning, and I had been on call since 9 am on the Saturday. I had had virtually no sleep on the Saturday night and none at all on the night in question, when I was covering the casualty department as well as the wards. I was exhausted to the point where I no longer felt tired. I no longer felt anything at all. All concentration took huge effort.

The patient was a young woman, drowsy but able to tell me her name and that she had taken "lots" of unidentified tablets after a row with her boyfriend. The staff nurse was ready with the pump, and we set to work.

We were half way through when I became aware that the patient's head had come off in my hands. I registered this fact quite calmly, feeling no alarm at all, no distress, not even any surprise. I struggled to think whether I had seen this happen before. I decided I hadn't. With great mental effort, I moved on to wondering if I had ever read about it. No, I thought, I hadn't done that either.

It was when I realised the staff nurse was smiling that I returned briefly to reality. Looking down again, I saw that I was holding the patient's wig in my hands and

that her head remained healthily attached to the rest of her body. The lack of alarm I had felt was now matched by lack of relief. I simply registered the fact and returned to my sleep deprived thinking: so, OK, her head was in place, it didn't matter for the moment if I didn't know how to re-attach a head. But as some stage I'd better find out, ask my registrar, read it up.

The overall memory I have of this event is one of slow, painstaking, mechanical registering of fact, requiring great effort and lacking any consequent rational thinking. I was devoid of all emotion and of any sense of involvement. Merely an observer, I felt completely detached from what seemed to me to be the reality of the situation.

Junior doctors' working conditions have improved; reasonable pay for long hours is to be welcomed, and there has been a reduction in the working week. But there is still some way to go, and exhaustion remains a problem. As doctors, we hope to learn from our memorable patients, but learning that one shouldn't be working when exhausted is only useful to those with some control over their working hours. No doubt I dealt with all sorts of other problems that sleepless night and throughout the next day, hopefully adequately, but if that was the case then it was due more to luck than to rational thinking and alertness of mind.

Ruth Booker *retired general practitioner, Twickenham*

We welcome articles up to 600 words on topics such as *A memorable patient, A paper that changed my practice, My most unfortunate mistake*, or any other piece conveying instruction, pathos, or humour. If possible the article should be supplied on a disk. Permission is needed from the patient or a relative if an identifiable patient is referred to. We also welcome contributions for "Endpieces," consisting of quotations of up to 80 words (but most are considerably shorter) from any source, ancient or modern, which have appealed to the reader.