Domestic violence screening and intervention programmes for adults with dental or facial injury (Review)

Coulthard P, Yong SL, Adamson L, Warburton A, Worthington HV, Esposito M

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[Intervention Review]

Domestic violence screening and intervention programmes for adults with dental or facial injury

Paul Coulthard[1], Sin Leong Yong[2], Linda Adamson[1], Alison Warburton[3], Helen V Worthington[4], Marco Esposito[1]

[1]Department of Oral and Maxillofacial Surgery, School of Dentistry, The University of Manchester, Manchester, UK. [2]Oral and Maxillofacial Surgery, School of Dentistry, The University of Manchester, Manchester, UK. [3]Centre for Women's Mental Health Research, Dept. of Psychiatry & Behavioural Sciences, University of Manchester, Manchester, UK. [4]Cochrane Oral Health Group, MANDEC, School of Dentistry, The University of Manchester, Manchester, UK

Contact address: Paul Coulthard, Department of Oral and Maxillofacial Surgery, School of Dentistry, The University of Manchester, Higher Cambridge Street, Manchester, M15 6FH, UK. paul.coulthard@manchester.ac.uk.

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ABSTRACT

Background

Domestic violence exists in all communities across the world. Healthcare services have a pivotal role in the identification, assessment and response to domestic violence. As the face is a common target in assault, dentists and oral and maxillofacial surgeons are in a unique position to screen for domestic violence in the context of presentation of dental and facial injury. Owing to lack of training, dentists and oral and maxillofacial surgeons may not be the best persons to give advice to someone experiencing domestic violence. Improper advice such as encouragement to leave an abusive relationship may escalate the frequency of violence. It may be more appropriate to refer to specialist agencies for intervention and support. It would, therefore be useful to know whether screening and intervention programmes are effective.

Objectives

(1) To assess the benefits and harms of intervention programmes employed to reduce and or prevent domestic violence in adults with dental and/or facial injuries.

(2) To assess the benefits and harms of screening and the use of different screening tools in the detection of the proportion of adult victims of domestic violence who present with dental and/or facial injury.

Search strategy

We searched the Cochrane Oral Health Group's Trials Register, the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, CINAHL, PsycINFO and LILACS databases. No language restrictions were applied. Personal contacts were used and international domestic violence organisations were contacted to identify any unpublished trials. Last search was done February 2004.

Selection criteria

Randomised controlled trials involving adults aged 16 years and over presenting with dental and/or facial injury relating to domestic violence in any healthcare setting.

Data collection and analysis

Screening of eligible studies was conducted in duplicate and independently by two reviewers. Results were to be expressed as random effects models using weighted mean differences for continuous outcomes and relative risk for dichotomous outcomes with 95% confidence interval. Heterogeneity was to be investigated including both clinical and methodological factors.

Main results

No eligible randomised controlled trials (RCTs) were identified.

Authors' conclusions

There is no evidence to support or refute that screening for domestic violence in adults with dental or facial injury is beneficial nor that it causes harm. Screening tools to detect domestic violence exist but no RCTs have specifically evaluated their effectiveness for patients presenting with facial and or dental injuries. There is also lack of evidence that intervention programmes are effective at reducing frequency of physical assaults and at reducing the severity of facial injuries.

PLAIN LANGUAGE SUMMARY

Domestic violence screening and intervention programmes for adults with dental or facial injury

There is no evidence to support or refute the effectiveness of screening and intervention programmes detecting and supporting victims of domestic violence with dental or facial injuries

Many studies highlighted difficulty in measuring domestic violence because of underreporting. Screening may be helpful to identify victims of domestic violence. Screening tools exist but no studies have evaluated their effectiveness. Dentist and oral and maxillofacial surgeons are not generally trained to intervene in situations involving domestic violence. Referral to specialist agencies for intervention maybe a better option. Many intervention programmes exist either to support, reduce and/or prevent domestic violence. However, the effectiveness or harms of these intervention programmes at reducing violence have not been properly investigated in healthcare settings.

BACKGROUND

Domestic violence is a term which usually refers to a wide range of physical, sexual, emotional and financial abuse of people who are, or have been, intimate partners whether or not they are married or cohabiting. This term is not limited to intimate partners alone, but also includes abuse that occurs in any relationship within households, including abuse of children, elders and siblings. An analysis of 10 separate domestic violence prevalence studies by the Council of Europe showed consistent findings: almost one in four (23%) women, and around one in seven (15%) men have experienced domestic violence over their lifetimes (Council of Europe). The prevalence in the United States of America is reported to be very similar to Europe (Rennison 2003). The 2001/02 British Crime Survey found that there were an estimated 635,000 incidents of domestic violence in England and Wales and that domestic violence incidents made up nearly 20% of all violent incidents reported by participants in the survey (Kershaw 2000). In Australia, it is estimated that 2.6 million women (38%) of the adult female population had experienced one or more incidents of physical or sexual violence since the age of 15 (Bureau of Statistics). A dramatic finding by The Queensland Domestic Violence Task Force estimated that domestic violence affects 90% of indigenous families living in Deed of Grant in Trust (DOGIT) Communities (Queensland 2000). One study on violence against women in South Africa showed that the lifetime prevalence of experiencing physical violence from an intimate partner was 24.6% (Jewkes 2002). However, these reports have highlighted the particular difficulty in measuring such violence because of underreporting (Mirrlees-Black 1999).

Healthcare services have a pivotal role to play in the identification, assessment and response to domestic violence, not only because of the impact of domestic violence on health, but crucially because the health services may be the only contact point with professionals who could recognise and intervene in the situation. The World Health Organization has indicated that the response of health services to domestic violence is an international prior-

ity (WHO 1998). Health services may literally be a lifeline for victims whose contact with the outside world is restricted by a violent partner, or who may not wish to become involved with the police or criminal justice system (Henwood 2000). Dentists and oral and maxillofacial surgeons have always been interested in numbers and patterns of dental and facial injuries. As the face is a common target in assault (Le 2001), these professionals have a unique opportunity to measure the incidence of domestic violence in the context of patients presenting with dental and/or facial injury (Gilthorpe 1999). Surgical sources of information are more reliable than police data in relation to violent crime and the contribution which these healthcare workers can make, may be substantial (Shepherd 1992).

There can be few healthcare professionals who have not seen patients whom they suspect are being abused at home but have not known what to do about it (Henwood 2000). It is not acceptable to simply assume that some other service - such as social services, or the police - will be doing something. This may not be the case. Those who have experienced domestic violence often have told no one what is happening to them and may be particularly wary of statutory services becoming involved. It is estimated, for example, that women on average experience 35 episodes of domestic violence before seeking help (Bewley 1997). Dentists and oral and maxillofacial surgeons have a pivotal role to play in the identification of domestic violence because dental and/or facial injury may provide the only contact point with these professionals who could recognise and intervene in the situation (Heise 1993). Several measures for assessment of the frequency and severity of abuse have been developed for research purposes (Hudson 1981; Marshall 1992; Soeken 1998). It is not the job of the healthcare practitioner to give advice to someone experiencing domestic violence on what direct action they should take. Indeed, ill-informed advice, to leave an abusive relationship, can be dangerous. Women who leave their partners can face an increased risk of assault (Mirrlees-Black 1999). Availability of a private setting may encourage disclosure of domestic violence and more importantly it ensures confidentiality of victims of domestic violence. Practitioners should provide information on how to contact the appropriate local services. Training should include all healthcare practitioners who have direct contact with patients including administrative staff, nurses and receptionists who usually have first contact with patients.

A recent review has investigated the acceptability and effectiveness of domestic violence screening of women presenting to all healthcare settings (Ramsay 2002). The authors found that screening programmes generally increased rates of identification of women experiencing domestic violence in antenatal and primary care clinics and emergency departments. However, there was no available evidence for the effectiveness of intervention programmes in health care settings. Another review investigated the available evidence on interventions aimed at preventing abuse or reabuse of women from the perspective of primary healthcare (Wathen 2003). The findings were consistent with those of Ramsay 2002. It would be useful to know whether screening and intervention programmes are effective in the dental and oral and maxillofacial surgery settings. The intervention programme in these settings would be referral of identified individuals to appropriate specialist agencies for support.

OBJECTIVES

To assess the effectiveness of intervention programmes employed to reduce and/or prevent domestic violence in adults with dental and/or facial injury.

To assess the effectiveness of screening and the use of different screening tools to detect the number of adult victims of domestic violence who present with dental and/or facial injury.

The following null hypotheses were tested against the alternative hypotheses of a difference:

(1) There is no difference in the relative beneficial and harmful effects of intervention programmes versus no intervention programmes for adults presenting with dental and/or facial injury resulting from domestic violence.

(2) There is no difference in the relative beneficial and harmful effects of different intervention programmes for adults presenting with dental or facial injury resulting from domestic violence.

(3) There is no difference in the proportion of adult victims of domestic violence detected by screening versus no screening amongst those who present with dental and/or facial injury.

(4) There is no difference in the proportion of adult victims of domestic violence detected by different screening tools amongst those who present with dental and/or facial injury.

METHODS

Criteria for considering studies for this review

Types of studies

All randomised controlled trials (RCTs).

Types of participants

Adults (16 years of age and older) who present to any healthcare setting with dental or facial injury.

Types of interventions

- Referral to specialist agencies for support in relation to domestic violence.
- Screening for domestic violence.

Types of outcome measures

Objectives 1 and 2

- Frequency of physical assault by self report.
- Severity of injury by self report.

Objectives 3 and 4

- Proportion of victims of domestic violence detected by self report.

Search methods for identification of studies

For the identification of studies included or considered for this review, detailed search strategies using a combination of controlled vocabulary and free text terms were developed for each database to be searched. These were based on the search strategy developed for MEDLINE (OVID) but revised appropriately for each database searched. The MEDLINE search strategy (Appendix 1) was combined with the Cochrane Sensitive Search Strategy for Randomised Controlled Trials (RCTs) (as published in Appendix 5b in the *Cochrane Reviewers' Handbook* version 4.2.0 (updated March 2003)).

Searched databases

The Cochrane Oral Health Group's Trials Register
The Cochrane Central Register of Controlled Trials (CENTRAL) (*The Cochrane Library* 2004, Issue 1)
MEDLINE (1966 to February 2004)
EMBASE (1980 to February 2004)
CINAHL (1982 to February 2004)
PsycINFO (1872 to February 2004)
LILACS (1982 to February 2004).
Last electronic search was done on 12 February 2004.
The bibliographies of identified RCTs and review articles were checked for studies outside the handsearched journals. PubMed was independently searched using the 'related articles' feature. Personal references were also searched.

Language

Non-English papers were to be included and translated through The Cochrane Collaboration.

Unpublished studies

Personal contacts were used to identify ongoing or unpublished RCTs. Domestic violence organisations (www.womensaid.com, www.womansaid.org.uk, and www.vachss.com/help_text/domestic_violence_intl.html), Home Office (www.crimereduction.gov.uk), Violence Research Groups (University of Wales College of Medicine, Department of Oral Surgery, Medicine & Pathology in Cardiff (www.uwcm.ac.uk/dentistry/osmp/violence/index.htm) and National Center for Injury Prevention and Control (www.cdc.gov/ncipc/dvp/dvp.htm)) were contacted. Current Controlled Trials (www.controlled-trials.com) was searched to identify ongoing or unpublished studies.

Handsearching

Several journals relevant to this review were handsearched as part of the Cochrane Oral Health Group's ongoing journal handsearching programme. The list of the dental journals handsearched by The Cochrane Collaboration can be found at (www.ohg.cochrane.org).

Data collection and analysis

The titles and abstracts (when appropriate) of all reports identified were scanned independently by two reviewers. For studies appearing to meet the inclusion criteria, or for which there were insufficient data in the title and abstract to make a clear decision, the full report was obtained and assessed independently by two reviewers to establish whether the studies meet the inclusion criteria or not. Disagreements were resolved by discussion. Where resolution was not possible, a third reviewer was consulted. All studies meeting the inclusion criteria were to undergo quality assessment and data were to be extracted. Studies rejected at this or subsequent stages were recorded in the table of excluded studies, and reasons for exclusion recorded.

Data extraction

Data were to be extracted by two reviewers independently using specially designed data extraction forms. Any disagreements were to be discussed and a third reviewer to be consulted where necessary. Authors were to be contacted for clarification or missing information. Data were to be excluded until further clarification was available if agreement could not be reached.
For each trial the following data were to be recorded:
Year of publication, country of origin and setting.
Details of the participants including demographic characteristics and criteria for inclusion.
Details on the type of intervention.
Details of the outcomes reported, including method of assessment and time intervals.

Quality assessment

The quality assessment of the included trials were to be undertaken independently and in duplicate by two reviewers based on what is written in the articles.
Two main quality criteria were to be examined:
(1) Allocation concealment, recorded as:
(A) Adequate
(B) Unclear
(C) Inadequate
(D) Not used
(2) Completeness of follow up (is there a clear explanation for withdrawals and dropouts in each treatment group?) assessed as:
(A) Yes
(B) No.
The agreement between assessors for the quality criteria were to be assessed by the Kappa statistic.
After taking into account the additional information provided by the authors of the trials, studies were to be grouped into the following categories:
(A) Low risk of bias (plausible bias unlikely to seriously alter the results) if all criteria were met.
(B) Moderate risk of bias (plausible bias that raises some doubt about the results) if one or more criteria are partly met (for example, when authors respond that they had made some attempts to conceal the allocation of patients, or to give an explanation for withdrawals, but these attempts were not judged to be ideal, these criteria will be categorized as "partly").
(C) High risk of bias (plausible bias that seriously weakens confidence in the results) if one or more criteria were not met as described in the *Cochrane Reviewers' Handbook* 6.7.

Data synthesis

For the binary outcomes, the estimates of effect of an intervention were to be expressed as risk ratios together with 95% confidence intervals. Where there are studies of similar comparisons reporting the same outcome measures a meta-analysis was to be attempted. Risk ratios were to be combined for dichotomous data, using a random effects model, as this would have lead to conservative estimates of the confidence intervals.
Heterogeneity was to be assessed by inspection of a graphical display of the estimated treatment effects from trials along with Cochran's Chi^2 test for heterogeneity undertaken prior to each meta-analysis.
Potential sources of heterogeneity were to be investigated for aspects of study quality specified a priori as follows: randomisation, allocation concealment, including/excluding unpublished literature. The association of these factors with estimated effects were to be examined by performing random effects metaregression analysis in Stata version 8.0 (Stata Corporation, USA), using the program Metareg. Further potential sources of heterogeneity were to be investigated as determined from the study reports, although these would have been clearly identified as 'post hoc' analyses and the results treated with caution.

RESULTS

Description of studies

No eligible randomised controlled trials were identified. Three randomised clinical trials published in six articles (Dunford 2000; Sullivan 1991a; Sullivan 1991b; Sullivan 1992; Sullivan 1994; Sullivan 1999) were found to be ineligible as the studies were not conducted on individuals who had experienced domestic violence and were presenting to a healthcare setting.

Risk of bias in included studies

No eligible studies for inclusion.

Effects of interventions

Three randomised controlled trials were identified by various search strategies (Dunford 2000; Sullivan 1991a; Sullivan 1991b; Sullivan 1992; Sullivan 1994; Sullivan 1999). However, none were eligible in this review for the reasons given above. None of these trials reported any statistical significant difference in the frequency of physical assaults between the interventions tested.

DISCUSSION

No randomised controlled trials were identified addressing domestic screening and intervention programmes for adults presenting with dental and facial injury. Our findings were consistent with another recent systematic review (Wathen 2003) which investigated the available evidence on interventions aimed at preventing abuse or reabuse of women. Lack of evidence to support the effectiveness of the interventions and lack of provider education were the most common barriers in the screening for domestic violence in health care. Without evidence for the effectiveness of the interventions, it seems inappropriate to introduce screening programmes. However, some authors have argued that screening for domestic violence may be justified on the basis of prevalence (Cole 2000; Waalen 2000). Injuries to the face are often noticeable so dentists and oral and maxillofacial surgeons should routinely question the cause of injury and carefully document the findings. Training of dentists and oral and maxillofacial surgeons, availability of sensitive screening tools and effective interventions may improve the outcomes of domestic violence. An important step prior

to the development of such a trial would be first to consolidate the partnership between health care and local domestic violence organisations. Multi-agency work is important to enhance the co-ordination and coherence of policy and practice.

AUTHORS' CONCLUSIONS

Implications for practice

There is no evidence to support or refute the usefulness of intervention programmes in reducing and/or preventing domestic violence in adults with dental or facial injury. There is also no evidence to suggest that screening for domestic violence in adults with dental or facial injury in any health setting is beneficial or harmful. Despite the lack of evidence, we should not abandon the mission of identification, documentation and support for people experiencing domestic violence. All front-line healthcare staff should be educated and trained in this area to increase awareness and to improve the response in the recognition and provision of support for people experiencing domestic violence.

Implications for research

There is a need for randomised controlled clinical trials to investigate the effectiveness of domestic violence intervention programmes and screening strategies. These trials should be conducted in busy hospital centres seeing large numbers of patients presenting with dental or facial injury. The primary outcome of intervention programmes should be subsequent incidents of domestic violence, and for screening programmes a true cause of injury. Better partnership between local domestic violence agencies and healthcare organisations may be the first crucial step in the development of such trials in this area.

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* *Indicates the major publication for the study*

DATA AND ANALYSES

This review has no analyses.

APPENDICES

Appendix 1. MEDLINE (OVID) search strategy

1. Domestic Violence/
2. domestic violence.mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
3. Spouse Abuse/
4. Battered Women/
5. battered women.mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
6. (abuse$ adj4 spouse$).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
7. (abuse$ adj4 wife).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
8. (abuse$ adj4 wives).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
9. (abuse$ adj4 partner$).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
10. (violence adj3 home).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
11. Elder Abuse/
12. (elder$ adj3 abuse$).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
13. (battered adj (men or man or husband$)).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
14. (domestic adj assault$).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
15. ("physical abuse" adj3 home).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
16. (home adj3 violen$).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
17. ((interpersonal or family or families) adj3 violen$).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
18. (dating adj3 (violence or violent)).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
19. ((violent or violence) adj3 (spouse$ or husband$ or boyfriend$ or girlfriend$ or partner$ or elder$ or brother$ or sister$ or father$ or mother$ or daughter$ or son$)).mp. [mp=title, abstract, cas registry/ec number word, mesh subject heading]
20. or/1-19

WHAT'S NEW

Last assessed as up-to-date: 11 February 2004.

Date	Event	Description
13 August 2008	Amended	Converted to new review format.

HISTORY

Protocol first published: Issue 4, 2003

Review first published: Issue 2, 2004

CONTRIBUTIONS OF AUTHORS

Conceiving, designing (Paul Coulthard (PC), Alison Warburton (AW), Marco Esposito (ME), Sin Yong (SY), Helen Worthington (HW)) and co-ordinating the review (PC).

Developing search strategy and undertaking searches (SY, ME, PC).

Screening search results and retrieved papers against inclusion criteria (SY, ME, HW).

Writing the review (SY, PC).

Providing general advice on the review (AW).

Performing previous work that was the foundation of current study (PC, SY, AW).

DECLARATIONS OF INTEREST

None known.

SOURCES OF SUPPORT

Internal sources

- The University of Manchester, UK.
- The Sahlgrenska Academy at Goteborg University, Sweden.

External sources

- British Association of Oral and Maxillofacial Surgeons, The Royal College of Surgeons of England, UK.
- Swedish Medical Research Council (9495), Sweden.
- Hjalmar Svensson Research Fund, Sweden.

INDEX TERMS

Medical Subject Headings (MeSH)

Domestic Violence [*prevention & control]; Facial Injuries [*etiology]; Tooth Injuries [*etiology]

MeSH check words

Humans