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REVIEW ARTICLE

Domestic violence and severe psychiatric disorders: prevalence and interventions

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Background. The lifetime prevalence of domestic violence in women is 20–25%. There is increasing recognition of the increased vulnerability of psychiatric populations to domestic violence. We therefore aimed to review studies on the prevalence of, and the evidence for the effectiveness of interventions in, psychiatric patients experiencing domestic violence.

Method. Literature search using Medline, PsycINFO and EMBASE applying the following inclusion criteria: English-language papers, data provided on the prevalence of or interventions for domestic violence, adults in contact with mental health services.

Results. Reported lifetime prevalence of severe domestic violence among psychiatric in-patients ranged from 30% to 60%. Lower rates are reported for men when prevalence is reported by gender. No controlled studies were identified. Low rates of detection of domestic violence occur in routine clinical practice and there is some evidence that, when routine enquiry is introduced into services, detection rates improve, but identification of domestic violence is rarely used in treatment planning. There is a lack of evidence on the effectiveness of routine enquiry in terms of morbidity and mortality, and there have been no studies investigating specific domestic violence interventions for psychiatric patients.

Conclusions. There is a high prevalence of domestic violence in psychiatric populations but the extent of the increased risk in psychiatric patients compared with other populations is not clear because of the limitations of the methodology used in the studies identified. There is also very limited evidence on how to address domestic violence with respect to the identification and provision of evidence-based interventions in mental health services.

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Introduction

Domestic violence can be defined as 'any incident of threatening behaviour, violence or abuse (psychological, physical, sexual, financial or emotional) between adults who are or have been an intimate partner or family member, regardless of gender or sexuality' (Home Office, 2008) and is one of the most common forms of inter-personal violence internationally (Krug *et al*. 2002). In the general population, the lifetime prevalence of isolated domestic violence incidents is comparable for men and women, but women are at greater risk of repeated coercive, sexual or severe physical violence (Tjaden & Thoennes, 2000). The British Crime Survey (2001) estimated that 45% of women and 26% of men aged 16–59 have experienced at least one episode of inter-personal violence (using the broad definition above) in their lifetimes; if financial or emotional abuse are excluded, then 21% of women and 10% of men have experienced domestic violence since the age of 16 (Walby & Allen, 2004). Equivalent US research has found that nearly 25% of surveyed women and 7.6% of surveyed men report that they were raped and/or physically assaulted by a current or former partner at some time in their lifetime (Tjaden & Thoennes, 2000). The World Health Organization (WHO) multi-country study of violence against women found that the reported lifetime prevalence of physical or sexual partner violence, or both, varied from 15% to 71% across the different sites; between 4% and 54% of respondents reported physical or sexual partner violence, or both, in the previous year (Garcia-Moreno *et al*. 2006). Two women

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are murdered by their partner or ex-partner every week in England and Wales (Walby & Allen, 2004) and similar figures are reported internationally; the time of highest risk is at the point of, or recently after, separation from the abuser.

In addition to physical injuries and long-term conditions (comprehensively reviewed by Campbell, 2002), domestic violence is associated with many mental health problems including post-traumatic stress disorder (PTSD), depression, suicidal ideation and substance misuse (Golding, 1999), functional symptoms (Campbell, 2002) and exacerbation of psychotic symptoms (Neria *et al*. 2005). However, women who experience domestic violence are at increased risk of not receiving mental health care (Lipsky & Caetano, 2007). Pre-existing mental health problems influence the likelihood of being in unsafe environments and relationships (McHugo *et al*. 2005) and influence the vulnerability and the response to violence (Briere & Jordan, 2004). Conversely, analysis of prospective data has found that, in addition to the association between earlier histories of mental health disorders and subsequent involvement in abusive relationships, women who are involved in abusive relationships also have an increased risk of subsequent psychiatric morbidity (Ehrensaft *et al*. 2006; Zlotnick *et al*. 2006). In addition, data from a systematic review (Golding, 1999) found that rates of depression declined over time once the abuse had ceased, and the severity or duration of violence was associated with the prevalence or severity of depression. There is therefore evidence supporting a causal association between domestic violence and psychiatric disorders in both directions: psychiatric disorders can render a woman more vulnerable to domestic violence and domestic violence can damage mental health.

Richardson *et al*. (2002) reported a 17% prevalence of domestic violence in the previous year in female patients attending primary care and MacMillan *et al*. (2006) found similar or higher prevalence in women attending accident and emergency departments. Domestic violence is frequently witnessed by children and is associated with significant disruptions in children's cognitive and emotional development, psychosocial functioning and long-term mental health, even if the child is not a direct victim of the violence (Kitzmann *et al*. 2003).

There has been considerable debate on how primary health-care services should address domestic violence and, though controversial, routine enquiry has been advocated as a policy by some experts (Taket *et al*. 2004). A recent systematic review of screening for domestic violence in health-care settings (Feder *et al*. 2009) found insufficient evidence to justify a screening programme, but reported growing evidence for the effectiveness of advocacy and psychological interventions after women disclose recent abuse. The review concluded that health-care professionals should ensure they are open to disclosure of domestic violence with a low threshold for asking about abuse; indicators of possible abuse include mental health symptoms.

There has been much less research on the prevalence of domestic violence experienced by men and women with severe mental disorders than in other clinical populations. There is very little research into how to address domestic violence experienced by this patient population. This paper reviews research on the prevalence of domestic violence in patients with severe mental disorders and on interventions to improve outcomes for those patients who have been exposed to domestic violence.

Method

Medline (from 1950), EMBASE (from 1980) and PsycINFO (from 1806) databases were searched for English-language primary studies examining domestic violence, using the UK Home Office definition of domestic violence above, experienced by adults in contact with in-patient or out-patient/community psychiatric services, focusing on prevalence, routine enquiry and interventions. The search terms for domestic violence were adapted from terms published in the Cochrane protocols by Dalsbo *et al*. (2006) and Ramsay *et al*. (2004) (see Appendices for full details of search strategies) and included family violence. We searched for papers published up to 27 May 2008.

Using Reference Manager software, titles and abstracts of all downloaded citations were evaluated independently for relevance to the topics under investigation by two reviewers (K.T. and A.W.) for inclusion in this review. Where it was not possible to determine whether a citation was relevant, it was included at this stage. Copies of all the papers identified as potentially suitable were obtained and again evaluated by the two reviewers. Reference lists of all included papers were searched to identify other relevant studies. Studies that did not report on the domains of prevalence, screening or interventions for psychiatric patients experiencing domestic violence were excluded. Data were extracted onto electronic forms and ordered into summary tables. Data on inclusion and exclusion criteria, time-frame for prevalence rates (e.g. 12-month prevalence of violence, lifetime prevalence), number and characteristics of non-respondents were extracted if reported. We did not use formal ratings of study quality (but did critically appraise the studies) and have commented on the methodological quality of primary studies in the results.

Results

Prevalence

Reported lifetime prevalence of domestic violence in female in-patient psychiatric samples ranges from 34% to 92% (Post *et al*. 1980; Carmen *et al*. 1984; Hoffman & Toner, 1988; Cascardi *et al*. 1996; Heru *et al*. 2006) and from 14% to 93% for male in-patients (Post *et al*. 1980; Hoffman & Toner, 1988; Heru *et al*. 2006) (see Table 1 for details of studies). One of these studies had a highly selected in-patient sample as it included only patients with suicidality and who had lived with a partner in the previous 6 months (Heru *et al*. 2006); if this study is not included then the prevalence reported ranges from 34% to 63% for female in-patients and from 14% to 48% for male in-patients. Reported prevalence for the previous year in in-patient populations ranges from 22% to 76% for female in-patients (Hoffman & Toner, 1988; Carlile, 1991; Cascardi *et al*. 1996; 92% in the Heru study) and is 48% for male in-patients (Hoffman & Toner, 1988; 93% in the Heru study).

In psychiatric out-patients the reported lifetime prevalence for women ranges from 15% to 90% (Herman, 1986; Bryer *et al*. 1987; Weingourt, 1990; Goodman *et al*. 1995; Eilenberg *et al*. 1996; Lipschitz *et al*. 1996; Briere *et al*. 1997; Chandra *et al*. 2003; Najavits *et al*. 2004; Grubaugh & Frueh, 2006; Bengtsson-Tops & Tops, 2007; Owens, 2007) and for men ranges from 0% to 13% (Tham *et al*. 1995; Eilenberg *et al*. 1996; Lipschitz *et al*. 1996; Grubaugh & Frueh, 2006). Reported prevalence for the previous year in female out-patients ranges from 19% to 86% (Najavits *et al*. 2004; McPherson *et al*. 2007; Owens, 2007) and is 8% over the previous 6 months in one study (Tham *et al*. 1995); for male out-patients there is only one report, which gives a prevalence of 5% over the previous 6 months (Tham *et al*. 1995) (see Table 1).

A larger, more representative study than those cited above attempted to survey all women in contact with in-patient and out-patient psychiatric services over 1 week in south Sweden using a self-administered questionnaire. The study reported that, during adulthood, 349 (40%) had experienced partner violence, 315 (36%) reported violence perpetrated by an ex-partner and 151 (17%) by a relative (Bengtsson-Tops *et al*. 2005). However, this study excluded some women with severe mental illness (defined as severe depression, acute psychosis, confusion and developmental disability) and some services did not allow access to their patients. Details of the numbers of patients thus excluded were not provided. Twenty-one per cent of eligible women did not complete the questionnaire.

Table 1 shows that a range of different measures have been used by researchers to elicit experiences of domestic violence, including validated questionnaires [e.g. the Traumatic Events questionnaire (Vrana & Lauterbach, 1994), Violence Needs Assessment (Barnhill *et al*. 1982), Conflict Tactics Scales (CTS; Straus, 1979) and the Revised Conflict Tactics Scales (CTS2; Straus *et al*. 1996), and Trauma Assessment for Adults (TAA; Resnick *et al*. 1993)], clinical interviews and data from clinical charts. This variation in outcome measures may partly explain the heterogeneity in prevalence. In addition, different inclusion criteria have been used to define study populations and no studies identified compared domestic violence prevalence in psychiatric patients with a non-psychiatric population. Few studies reported the distribution of different diagnoses in the study population and it was therefore not possible to examine prevalence in different diagnostic groups.

Routine enquiry for domestic violence in psychiatric settings

Several studies have found that mental health-care professionals do not routinely ask about domestic violence. For example, a survey of 221 American psychiatric residents using postal questionnaires (66% response rate) found that most residents do not routinely ask patients about domestic violence; 61% reported asking about domestic violence only when a problem was suspected, and a further 15% reported not asking even when a problem was suspected. Residents admit that although they were particularly unlikely to ask male patients, they also did not ask most female patients (Currier *et al*. 1996). Low rates of detection (around 10–30% of cases) have been found in routine clinical practice when compared with results obtained by specific screening questionnaires (Cascardi *et al*. 1996; Chandra *et al*. 2003; Cusack *et al*. 2004) and surveys of members of mental health consumers in New Zealand (Lothian & Read, 2002) and the USA (Frueh *et al*. 2005; Cusack *et al*. 2006) have confirmed that the majority are not asked about a history of abuse.

These low rates of detection, and the low rates of detection of childhood abuse reported in other studies (Agar *et al*. 2002), have led to the introduction of routine enquiry policies for all forms of abuse in some psychiatric services. The few studies evaluating such policies have reported that detection of childhood and adulthood abuse (including domestic violence) is improved when routine enquiry for childhood and adulthood abuse is introduced, although these studies have major methodological limitations. A before-and-after study found that, after the introduction in a

Table 1. *Prevalence of domestic violence in psychiatric patients*

	Sample	Method	Results	Comments
Barnhill *et al*. 1982	837 male and female in-patients	Cross-sectional survey. Violence Needs Assessment	153 (18%) patients experienced lifetime physical violence from a spouse	No data on gender difference in domestic violence
Bengtsson-Tops *et al*. 2005	1382 women using psychiatric services	Cross-sectional survey. Self-administered questionnaire	349 (40%) women reported physical, sexual or emotional violence perpetrated by a partner, 315 (36%) reported violence by an ex-partner, 151 (17%) perpetrated by a family member	Selection bias due to lack of access to some women
Briere *et al*. 1997	93 female psychiatric patients	Cross-sectional survey. Interviews and examination of chart records	42% reported lifetime physical or sexual victimization within a sexual relationship	Response rate unclear
Bryer *et al*. 1987	66 female in-patients	Cross-sectional survey. Self-administered questionnaire	6 (11%) reported adult sexual abuse by a nuclear family member. 17 (26%) reported adult physical abuse by partners, 6 (11%) by fathers, 4 (6%) by brothers	Not clear how many reported adult sexual abuse by partners as not reported separately
Carlile, 1991	152 female out-patients and in-patients	Cross-sectional survey. Interview developed for study	74 (49%) women assaulted by husband during marital relationship, 8 (22%) of in-patients assaulted in week prior to in-patient admission	Only married women included
Carmen *et al*. 1984	122 female in-patients	Retrospective chart review	41 (34%) women had suffered serious physical or sexual abuse by husbands or former husbands	Focus of study on lifetime abuse
Cascardi *et al*. 1996	33 male and 36 female in-patients	Cross-sectional survey. Research interviews using CTS	63% of 43 respondents with a partner reported physical violence from partner in previous year. 76% of 48 respondents living with a family member reported violence from them	Recent physical abuse not recorded in charts of most cases where it was reported on interview. Selection bias due to refusals to participate
Chandra *et al*. 2003	146 female in-patients	Researcher-administrated interview	22 (15%) reported experiencing lifetime sexual violence from a partner, 12 (8%) from a relative other than husband	Few medical records mentioned the sexual violence disclosed during study
Eilenberg *et al*. 1996	180 male and female out-patients	Chart review of responses to mandatory screening questions	19% of women experienced physical, sexual and emotional abuse. No men reported histories of abuse or trauma as adults	Sample largely Hispanic
Goodman *et al*. 1995	99 previously homeless women of community mental health centre caseload	Cross-sectional survey. Modified CTS and semi-structured interview on childhood and adult sexual abuse	86 (80%) had lifetime history of physical assault by an intimate partner; 40% had been sexually assaulted by a partner	80% African American
Grubaugh & Frueh, 2006	141 day-hospital patients (79 male, 62 female)	Cross-sectional survey. TAA	21 patients (14.9%) [1 (1.3%) man, 20 (32.3%) women] reported at least one lifetime incident of sexual or physical abuse from partner	No data on recent (previous year) violence

Herman, 1986	190 out-patients (105 female, 85 male)	Data on violence extracted from clinical records	23% of women who had ever been married 'had been beaten' by their husbands (physical or sexual abuse)	Not clear how many subjects had been married but authors state 'most were single'
Heru *et al*. 2006	110 in-patients (44 male, 66 female)	CTS2	Partner-to-respondent physical violence in previous year: 93% for men; 92% for women; partner-to-respondent psychological abuse: 83% for men, 92% for women Partner-to-respondent sexual abuse: 29% for men, 19% for women	Non-response rate not clear. Sample largely Caucasian
Hoffman & Toner, 1988	25 male and 25 female psychiatric in-patients	Cross-sectional survey. CTS on sexual abuse	12 (48%) men and 19 (76%) women reported major physical violence from partner in previous year. 2 men, 9 women reported forced sex	Non-response rate not clear
Lipschitz *et al*. 1996	120 out-patients (72% female, 28% male)	Cross-sectional survey. Traumatic Events Questionnaire	30 (35%) women and 2 (6%) men reported physical or sexual assault from a partner across adults' lifetime	Not clear who perpetrator was for sexual assault data
McPherson *et al*. 2007	Mothers with severe mental illness	Cross-sectional survey. Questions derived from CTS	72 (19%) women experienced intimate partner violence over previous year	Selection bias due to inability to contact 10% and 12% declined participation
Najavits *et al*. 2004	58 women with PTSD and substance dependence	Cross-sectional survey. CTS2; THQ	Lifetime prevalence of domestic violence by a partner: physical assault 38 (66%), psychological aggression 52 (90%), sexual coercion 33 (57%). Past-year domestic violence by a partner: physical assault 29 (50%), psychological aggression in 50 (86%), sexual coercion 26 (45%)	Selection bias due to method of recruitment
Owens, 2007	210 female patients	Cross-sectional survey. Self-report questionnaires	129 (60%) reported a history of physical abuse, with 43/180 (24%) respondents reporting physical abuse in the past year; 84/205 (41%) reported a history of sexual abuse, with 34/193 (18%) in the past year; 27–34% reported psychological abuse	Variable response rates to different questions, possibly related to formatting of questionnaire
Post *et al*. 1980	60 in-patients (22 male, 38 female)	Cross-sectional survey. Structured interview developed for the study	19 (50%) female patients and 3 (14%) male patients revealed they had experienced significant physical harm from a partner	Extent of selection bias not clear
Tham *et al*. 1995	184 (91 male, 93 females) presenting for acute psychiatric assessment	Screening questions developed for the study	45 (24%; 12 men, 33 women) had a history of domestic violence; 5.4% (2 men, 8 women) had experienced domestic violence in the previous 6 months	Majority of participants Caucasian (69%). No details of numbers of non-participants so selection bias possible
Weingourt, 1990	53 women treated for depressive or anxiety disorder referred by therapists	Cross-sectional survey. Semi-structured interview developed for the study	17 (32%) had been raped by their husbands and 16 (30%) had been raped and battered by their husbands	Highly selected sample

PTSD, Post-traumatic stress disorder; CTS, Conflict Tactics Scales; CTS2, Revised Conflict Tactics Scales; TAA, Trauma Assessment for Adults; THQ, Trauma History Questionnaire.

New Zealand community mental health centre of an assessment form with a specific abuse section, detection of any adulthood abuse significantly increased from 1.5% ($n=136$) to 11.5% ($n=26$) (Agar *et al*. 2002), although a subsequent paper reported that, of the detected childhood and adulthood abuse, only 16.3% were mentioned in the treatment plan found in case files and no (even recent or ongoing) alleged crimes were reported to legal authorities (Agar & Read, 2002). A study of the impact of an abuse section on an admission form for psychiatric in-patients found that the rate of documented abuse was significantly higher when the abuse section of the form was used, but the authors noted that the abuse section was avoided by clinicians in 68% of cases (Read & Fraser, 1998). The introduction in 1989 in New York of mandated routine enquiry about a history of abuse was similarly associated with substantial detection of abuse histories of out-patients receiving psychotherapy (19% of 138 women experienced some form of adult physical abuse, 'mostly domestic violence') (Eilenberg *et al*. 1996), but there was no comparison with detection rates before the introduction of the mandated enquiry policy. Moreover, information about childhood or adulthood abuse was rarely used in assessment and planning of treatment: most (56%) treatment plans in medical records made no mention of the trauma; even in the 44% of records where trauma was mentioned, relevant treatment recommendations (such as safety planning) were not included in more than one-third of plans. Currier *et al*. (1996) found that when domestic violence survivors were identified, less than half were referred by medical residents to specialized services such as women's shelters or domestic violence hotlines. Similarly, the introduction of a self-report trauma screening instrument into the intake assessment process at a US community mental health centre, while increasing detection of trauma, had no impact on the rates of actual treatment of the trauma (Cusack *et al*. 2004).

Acceptability of routine enquiry

We did not find any studies that specifically investigated psychiatric patients' views on acceptability of routine enquiry. There is an extensive literature on psychiatric professionals' views on the acceptability of asking for a history of childhood and adulthood abuse (Read *et al*. 2007), although this literature usually focuses on childhood sexual abuse. In the smaller literature on routine enquiry for domestic violence in the psychiatric setting, we identified studies detailing barriers to routine enquiry from studies using qualitative research methods (Minsky-Kelly *et al*. 2005) and quantitative surveys using postal questionnaires (Currier *et al*. 1996; Cann *et al*. 2001; Salyers *et al*. 2004). The barriers to enquiry reported by clinicians were a lack of rapport (Currier *et al*. 1996), lack of expertise (Salyers *et al*. 2004; Minsky-Kelly *et al*. 2005), and the patient being under the influence of drugs or alcohol (Currier *et al*. 1996) or floridly psychotic (Minsky-Kelly *et al*. 2005), making clinicians doubt if they can rely on patients' accounts (Minsky-Kelly *et al*. 2005). In one questionnaire study (with a 48% response rate), 13% of 61 UK mental health practitioners completing the questionnaire were concerned about offending patients if they carried out routine enquiry and only 26% of the 61 mental health practitioners thought it would be valuable for all patients to be asked (Cann *et al*. 2001). However, this study also reported that mental health practitioners were more likely to know about local domestic violence services than practitioners in primary care or obstetrics/gynaecology.

Interventions

A wide range of individual psychological interventions benefit women with depression and PTSD, including reduced depressive symptoms and post-traumatic stress symptoms, and improved self-esteem (Feder *et al*. 2009). In particular, two trials of cognitive behavioural therapy (CBT) for women with PTSD who were no longer experiencing violence suggest that cognitive behavioural approaches are helpful (Kubany *et al*. 2003, 2004). There are also studies of group psychological interventions that show improvement in psychological outcomes, although these have major methodological limitations (Feder *et al*. 2009). However, these findings cannot be extrapolated to women still in abusive relationships, or to women with more severe psychiatric illnesses in contact with mental health services. Only one small randomized controlled trial (RCT) of trauma-focused CBT for patients with severe mental illness was identified in our search. This reported the potential effectiveness for co-morbid PTSD in patients with a primary diagnosis of schizophrenia or major mood disorders (Mueser *et al*. 2008); however, this study does not specifically focus on trauma in the context of domestic violence.

We also found descriptions of policy initiatives to improve services to mental health service users who are trauma survivors; these are not specific to domestic violence but could be expected to address domestic violence as part of these initiatives. These attempt to increase the rates of detection of trauma by mental health services and to increase rates of treatment of the trauma as part of the management plan (Eilenberg *et al*. 1996; Agar *et al*. 2002). Reports of such initiatives highlight the barriers to addressing trauma in routine

clinical practice. These include the misconceptions about whether a person with a serious mental illness can also be diagnosed with PTSD and treated for it, and whether the roles of mental health services include addressing trauma (Cusack *et al*. 2007).

There is very limited evidence on specific interventions for current domestic violence in any setting although there is some evidence for effectiveness of domestic violence advocacy, particularly for women who have actively sought help or are in a refuge (Feder *et al*. 2009). Domestic violence advocates are independent domestic violence workers who provide practical and emotional support, carry out risk assessments and help people with safety planning, provide information on welfare rights, housing options and legal issues and signpost to other agencies. However, we found no studies that evaluate advocacy or any other specific domestic violence interventions for psychiatric patients.

Discussion

The prevalence of domestic violence in psychiatric patients

We found that most studies reported higher rates of domestic violence experienced by people with severe mental illness compared with general population prevalence reported in other studies (Tjaden & Thoennes, 2000; Walby & Allen, 2004). No study included a direct comparison with a general population or other clinical comparison group, making it difficult to draw conclusions on the extent to which psychiatric patients are at greater risk. The definition of domestic violence used by researchers varied considerably, but in those studies examining severe domestic violence the lifetime prevalence was between 30% and 60% (Post *et al*. 1980; Carmen *et al*. 1984; Cascardi *et al*. 1996), with higher rates reported for women than men in most studies. However, these three studies only included in-patients so cannot be generalized to out-patient populations. The most methodologically rigorous study, which measured the prevalence of domestic violence in psychiatric patients using a more representative study population across in-patient and out-patient settings and used an anonymous self-administered questionnaire, found that 40% of 874 women had experienced partner violence that included physical, sexual or emotional violence (Bengtsson-Tops *et al*. 2005). However, individuals who were not able to give informed consent were excluded and therefore we cannot generalize these findings to the most severely ill patients.

Unfortunately, many researchers did not establish or report when the abuse occurred so it was not always possible to distinguish 12-month or lifetime prevalence estimates (for more details of individual studies see Supplementary Table S1, available online). Methods of measuring domestic violence also varied between studies, ranging from retrospective case-note analysis, non-validated screening questions, to researcher-administered validated instruments such as the CTS (Straus, 1979). Most used measures that involved face-to-face interviews (using standardized validated measures, new non-validated measures or clinical interview), which may lead to underdetection of violence experienced. One large RCT of different methods of screening for domestic violence in family practices, emergency departments and women's health clinics found that, when using the same standardized validated questionnaires, women preferred self-completed forms over face-to-face questioning (MacMillan *et al*. 2006). It is also clear from several studies that routine clinical interviews and clinical records reflect considerable underdetection by mental health professionals of violence experienced by patients (Steiner-Craine *et al*. 1988; MacMillan *et al*. 2006), and future studies should therefore consider using self-completed measures.

Most studies focus only on physical or sexual violence. However, a large international epidemiological study suggests that emotional abuse and control may be the aspects of domestic violence most strongly associated with poor health outcomes (Garcia-Moreno, 2009). The studies in our review reported few data on the prevalence of different types of violence in patients with different psychiatric diagnoses, so we do not know whether particular disorders are associated with a particularly high risk of particular types of violence. However, it did seem that patients with diagnoses ranging from schizophrenia to non-psychotic disorders were victims of domestic violence.

A further difficulty in interpreting the findings of the some of the primary studies was the failure of authors to distinguish between domestic and non-domestic violence, reporting abuse from partners, families, acquaintances and strangers together or failing to specify the perpetrators of abuse. Studies where this was ambiguous could not be included in this review (list available from the authors on request). We found that the victimization literature rarely provides information about the specific types and contexts of crime committed against people with mental illness (Maniglio, 2009), making it difficult to estimate the prevalence of domestic violence from these studies. The literature on 'victimization' (encompassing physical, sexual and emotional abuse regardless of the relationship between victim and perpetrator) suggests that patients in contact with mental health services are up to 11 times more likely to have experienced recent

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violence than the general population, with victimization prevalence of the order of 15–45% in the past year, and 40–90% over a lifetime (Goodman *et al*. 1997; Walsh *et al*. 2003; Silver *et al*. 2005; Teplin *et al*. 2005; Friedman & Loue, 2007; Choe *et al*. 2008).

It would be helpful to know, within these studies, the ratio of domestic violence to other forms of violence. This would help to clarify the prevalence, burden and risk profile for domestic violence relative to other subtypes, which would in turn help research on interventions and practice. For example, there is good evidence from the 2007/08 British Crime Survey that, in the UK general population, women are the main victims of domestic violence (85% of all incidents) and men are the main victims of stranger violence (78% of all incidents) (Home Office, 2008), but the picture is less clear for psychiatric patients, where women are at increased risk of stranger violence in addition to domestic violence (Friedman & Loue, 2007), and men are at significant risk of violence within the family (Cascardi *et al*. 1996). Domestic violence is more hidden and more psychologically harmful than stranger violence (Dutton, 1992) because of the nature of the relationship between the perpetrator and victim. Moreover, psychiatric patients who are parents may be particularly fearful of disclosure in case the involvement of statutory services may lead to loss of custody of their children (Howard, in press). The need to synthesize research on domestic violence and other violence subtypes is highlighted by the high prevalence of 'multiple victimization' within the psychiatric population, where patients are often the victims of more than one subtype of violence. It is unclear to what extent 'co-morbidity' of domestic violence and other violence subtypes is due to common risk factors and to what extent one is associated with the other.

Routine enquiry

We found evidence that mental health-care professionals internationally do not routinely ask about domestic violence (e.g. Currier *et al*. 1996; Chandra *et al*. 2003) and that this leads to underdetection. It is known that asking about domestic violence can increase the number of abused women being identified by health professionals in general health-care settings (Ramsay *et al*. 2002). We have found that studies in psychiatric services are consistent with studies in other health-care settings in that implementation of routine enquiry increases detection rates (Eilenberg *et al*. 1996; Read & Fraser, 1998; Agar & Read, 2002). However, the methodological quality of these studies is poor and only one study (Eilenberg *et al*. 1996) focused on routine enquiry for domestic violence as opposed to a history of any form of abuse. Even when a policy of routine enquiry is introduced into psychiatric services, professionals do not always implement it (Read & Fraser, 1998), nor do they always make use of a disclosed history of domestic violence in their treatment plans (Currier *et al*. 1996; Eilenberg *et al*. 1996).

There are many barriers that might account for the reluctance to ask about and record domestic violence, including clinicians' concerns that it is difficult to rely on patients accounts. However, evidence suggests that psychiatric patients tend to under-report rather than over-report victimization experiences (Goodman *et al*. 1999). Some clinicians have also expressed concern that patients may be offended by routine enquiry, but research on the acceptability of routine enquiry in other health-care settings such as antenatal services and primary care have found that the vast majority of women find such questioning acceptable (Feder *et al*. 2006; Renker & Tonkin, 2006; Bacchus *et al*. 2008). A further barrier is professionals' perceptions of their limited competence and confidence in addressing violence (Salyers *et al*. 2004).

Interventions for domestic violence experienced by psychiatric patients

We did not find any evidence on the effectiveness of specific domestic violence interventions for psychiatric patients and such evidence is clearly imperative if the needs of patients experiencing domestic violence are to be addressed effectively. Trauma-focused CBT has been shown to be a potentially effective form of treatment of co-morbid PTSD in patients with a primary diagnosis of schizophrenia or major mood disorders (Mueser *et al*. 2008). A systematic review of domestic violence interventions to reduce violence and improve outcomes for women in a variety of community and health-care settings found that domestic violence advocacy can reduce abuse, increase social support and increase use of safety behaviours (Ramsay *et al*. 2009). It is not known whether this intervention is helpful for people with severe mental disorders but it is likely that psychiatric patients need modified or different interventions, as the domestic violence sector can feel ill-equipped to help people with severe mental illness (see Hager, 2006).

Limitations of review

Our literature search did not include hand-searching of relevant journals and formal rating of methodological quality was beyond the scope of this review. This, and the heterogeneous nature of the samples studied, means that it has not been possible to calculate a summary statistic of the prevalence of domestic violence experienced by people in contact with

secondary mental health services. Future research should include a comprehensive systematic review including hand-searching of relevant journals, formal ratings of methodological quality and a meta-analysis to estimate the prevalence of domestic violence in psychiatric patients.

Implications of findings

Despite the growing body of research on domestic violence in the general population and on victimization in psychiatric patients, there is very little high quality evidence on the prevalence of domestic violence experienced by psychiatric patients compared with the general population. There is some limited evidence that policies that introduce routine clinical enquiry lead to increased detection of domestic violence, but it is not known whether this leads to improvements in morbidity or mortality and there is no evidence on effective interventions. These findings have implications for mental health service policy makers attempting to address domestic violence. High quality evidence is needed on the extent to which this population may be at increased risk of domestic violence and whether routine enquiry is effective at increasing detection rates, and improving morbidity and mortality.

If routine enquiry policies are introduced, the current evidence suggests that they are most likely to be effective if psychiatric professionals receive training to increase their confidence in their ability to help people experiencing domestic violence and to improve their knowledge about domestic violence services. It is necessary for psychiatric services to work with specialist domestic violence services. There are few reports of this type of collaboration, although an innovative telepsychiatry intervention in the USA, where psychiatric input was provided to a rural women's shelter programme, is an example of the domestic violence sector and psychiatric services working in an integrated way (Thomas *et al*. 2005). Domestic violence advocacy, an intervention found to be effective in reducing abuse and increasing safety behaviours in other settings (Ramsay *et al*. 2009), may also be helpful for psychiatric patients. Future research on interventions in this area will need to examine the applicability of evidence-based domestic violence interventions from other health-care settings to mental health services.

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Appendix A

Search terms for identifying primary studies on domestic violence and incidence or prevalence

((Domestic Violence/) or (Partner Abuse/) or (Battered Females/) or ((abus$ adj3 (wom?n or partner$ or spouse$ or female$ or wife or wives or domestic or perpetrat$)).tw.) or ((batter$ adj3 (wom?n or partner$ or spouse$ or female$ or wife or wives or perpetrat$)).tw.) or ((violen$ adj3 (partner$ or spouse$ or family or families or domestic or wife or wives)).tw.) or ((domestic violence adj5 perpetrat$).ti,ab.) or ((family violence adj5 perpetrat$).ti,ab.) or ((domestic violence adj5 victim$).ti,ab.) or ((family violence adj5 victim$).ti,ab.) or ((domestic violence adj5 survivor$).ti,ab.) or (intimate partner violence.ti,ab.) or ((domestic adj5 homicid$).ti,ab.)) or ((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$)).mp. or (battered adj (men or man or husband$)).mp.

AND

(mental disorder$ or mental illness$ or (mental health adj (problem$ or difficult$ or disorder$ or ill$))).mp. or ((mental health or psychiatr$ or psycholog$ adj3 (patient$ or client$ or wom?n or m?n)).mp.) or Mental health services/ or Psychology/ or Psychiatry.mp. or psychiatr$.mp. or psycholog$.mp.

AND

Incidence.mp.

OR

Prevalence.mp.

Appendix B

Search terms for identifying primary studies on domestic violence and screening or routine enquiry

((Domestic Violence/) or (Partner Abuse/) or (Battered Females/) or ((abus$ adj3 (wom?n or partner$ or spouse$ or female$ or wife or wives or domestic or perpetrat$)).tw.) or ((batter$ adj3 (wom?n or partner$ or spouse$ or female$ or wife or wives or perpetrat$)).tw.) or ((violen$ adj3 (partner$ or spouse$ or family or families or domestic or wife or wives)).tw.) or ((domestic violence adj5 perpetrat$).ti,ab.) or

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((family violence adj5 perpetrat$).ti,ab.) or ((domestic violence adj5 victim$).ti,ab.) or ((family violence adj5 victim$).ti,ab.) or ((domestic violence adj5 survivor$).ti,ab.) or (intimate partner violence.ti,ab.) or ((domestic adj5 homicid$).ti,ab.)) or ((violent or violence) adj3 (spouse$ or husband$ or boyfriend$ or girlfriend$ or partner$ or elder$ or brother$ or sister$ or father$ or mother$ or daughter$ or son$)).mp. or (battered adj (men or man or husband$)).mp.

AND

(mental disorder$ or mental illness$ or (mental health adj (problem$ or difficult$ or disorder$ or ill$))).mp. or ((mental health or psychiatr$ or psycholog$ adj3 (patient$ or client$ or wom?n or m?n)).mp.) or Mental health services/ or Psychology/ or Psychiatry.mp. or psychiatr$.mp. or psycholog$.mp.

AND

Screening.mp.

OR

Routine Screening.mp.

OR

Routine enquiry.mp.

Appendix C

Search terms for identifying primary studies on domestic violence and treatment

Domestic Violence/ or Partner Violence/ or Battered Woman/ or (abus$ adj3 (wom?n or m?n or partner$ or spouse$ or female$ or wife or wives or domestic or perpetrat$)).tw. or (batter$ adj3 (wom?n or partner$ or spouse$ or female$ or wife or wives or perpetrat$)).tw. or (violen$ adj3 (partner$ or spouse$ or family or families or domestic or wife or wives)).tw. or (domestic violence adj5 perpetrat$).ti,ab. Or (family violence adj5 perpetrat$).ti,ab. Or (domestic violence adj5 victim$).ti,ab. Or (family violence adj5 victim$).ti,ab. Or (domestic violence adj5 survivor$).ti,ab. Or intimate partner violence.ti,ab. Or (domestic adj5 homicid$).ti,ab. Or ((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$)).mp. or ((violent or violence) adj3 (spouse$ or husband$ or boyfriend$ or girlfriend$ or partner$ or elder$ or brother$ or sister$ or father$ or mother$ or daughter$ or son$)).mp. or ((violent or violence) adj3 (spouse$ or husband$ or boyfriend$ or girlfriend$ or partner$ or elder$ or brother$ or sister$ or father$ or mother$ or daughter$ or son$)).mp. or (battered adj (men or man or husband$)).mp.

AND

(mental disorder$ or mental illness$ or (mental health adj (problem$ or difficult$ or disorder$ or ill$))).mp. or ((mental health or psychiatr$ or psycholog$ adj3 (patient$ or client$ or wom?n or m?n)).mp.) or Mental health services/ or Psychology/ or Psychiatry.mp. or psychiatr$.mp. or psycholog$.mp.

AND

((psychiatr$ treatment$ or psycholog$ treatment$ or mental health) adj treatment$).mp.

OR

'Early Intervention (Education)'/ or Crisis Intervention/ or Intervention Studies/

OR

Randomised controlled trials.mp.

Declaration of Interest

None.

Note

Supplementary material accompanies this paper on the Journal's website (http://journals.cambridge.org/psm).

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