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Disparities in Treatment of People With Mental Disorder in Non-Psychiatric Hospitals: A Review of the Literature

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A B S T R A C T

People with mental disorder experience a heavy burden of physical ill-health. This, alongside structural health-system changes, means more people with mental disorder are being cared for in non-psychiatric hospitals. This article reports on 32 studies that have investigated the care and outcomes of people with comorbid mental and physical health problems in non-psychiatric hospitals. Prevalence of mental disorder ranged between 4%–46%, and rates of psychiatric referral was 2%–10%. The receipt of invasive cardiac procedures was markedly reduced for those with mental disorder. Likelihood of experiencing an adverse event, post-operative complication or increased length of stay was also elevated for those with mental disorder.

The high prevalence of mental disorder has become widely acknowledged in recent times. It is estimated that around 45% of people in developed countries will experience a mental disorder at some point in their life (Jacobi et al. 2004; Kessler et al. 2005). Worldwide, it is suggested that between one in four and one in five will experience mental disorder in any 12-month period (Australian Bureau of Statistics, 2007; Kessler, Chiu, Demler, & Walters, 2005; Vos et al. 2013; Wittchen & Jacobi, 2005). There is also an increasing acknowledgement that those with mental disorder experience a heavy burden of physical ill-health. Of those who are considered to have a mental disorder around 58% will have a comorbid chronic physical condition (Australian Institute of Health & Welfare, 2012). This increased burden is perhaps most clearly manifested in the reduced life expectancy of those with mental disorder. Most estimates suggest that this group will live between 10 and 30 years less than the general population, depending on the type and severity of the disorder (Colton & Manderscheid, 2006; Miller, Paschall, & Svendsen, 2006; Piatt, Munetz, & Ritter, 2010). Those with substance-use disorders or 'serious mental illness' (SMI), usually classified in the literature as major depression, bipolar, psychotic and schizophrenia-type disorders, have the greatest reduction in life expectancy and a relative mortality risk of 2–3 times that of the general population (Brown, Inskip, & Barraclough, 2000; Chang et al. 2010; Saha, Chant, & McGrath, 2007).

Concurrent with the increased recognition of mental disorder and comorbid physical ill-health have been widespread changes to the way health systems have treated and managed those with mental health conditions. One of the most significant changes has been the reduction in the number of psychiatric hospital inpatient beds since the early 1990s (Keown, Mercer, & Scott, 2008; Priebe et al. 2005). This has resulted in a significant rise in the number of acute mental health care beds in non-psychiatric hospitals (Department of Health & Ageing, 2010; Foley et al. 2004). Some 84% of these beds are now found in medical and surgical units (Department of Health & Ageing, 2007). The repercussions of these changes, both positive and negative, are still highly relevant today.

Health care practitioners are regularly confronted with the challenge of managing the health of those with complex mental and physical health problems. The treatment and care of patients in medical and surgical units with coexisting mental disorder are unclear. The impact on mental health patient's health outcomes is similarly unclear. This article therefore seeks to explore these areas of uncertainty through a review of the current literature. In particular this article seeks to clarify: the prevalence of mental disorder and rates of psychiatric and mental health referral; disparities in medical and surgical care for those with mental disorder; and adverse events, post-operative complications and length of stay (LOS) during inpatient stays.

METHOD

Databases searched were Medline, CINAHL, PsychINFO, Expanded Academic ASAP and ProQuest Health & Medicine. Additionally, the web search engines Google and Google Scholar were utilised (due to different algorithms these two search engines often yielded different results). Combinations of keywords and MeSH terms included: (mental disorder or mental health or schizophrenia or substance-

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related disorder) AND (general hospital or inpatients or health status or non-psychiatric [keywords] medical ward or surgical ward or physical conditions or physical illness or cardiovascular disease or cardiac procedure), combined with (postoperative complications or length of stay or mortality or prevalence or [keywords] adverse events or psychiatric consultation or consultation–liaison psychiatry).

These results were limited to English language publication since 1998. The generous 'year of publication' range was used due to the paucity of relevant mental health research. Exceptions to this age limit were made for landmark or key publications and when there was limited newer literature. Additionally, the reference lists of key articles were hand-searched to identify relevant citations. Finally, hard copies of recently published major journals were searched for articles under online embargo.

RESULTS

The preliminary search using the above criteria yielded approximately 840 results. Of these 752 results were discarded after an initial title and abstract review as they were duplicates, journal comments or editorials, or did not address the topic area. A number of criteria were applied to the remaining articles. Studies were excluded if the sample or data were not primarily derived from a non-psychiatric hospital inpatient setting. Studies were excluded if a comparison between patients with and without mental disorder was not made. If the study involved screening or surveillance measure the subjects needed to have a formal medical diagnosis at the time of the study. The remaining 32 studies were examined and included in this literature review. They reported on the prevalence of mental disorder or rate of psychiatric consultation or referral ($n = 8$), disparity in and medical care ($n = 16$), rates of adverse events, post-operative complications and length of stay ($n = 8$ [including one literature review of 23 studies]).

Prevalence of Mental Disorder and Psychiatric Referral

The estimated prevalence of mental disorder among inpatients of non-psychiatric hospitals range from around 4%–46% (Arolt, Driessen, & Dilling, 1997; Hansen et al. 2001). Martucci et al. (1999), in screening and interviews of 1,039 consecutive admissions to medical and surgical units in an Italian hospital, found that 26.1% met criteria for mental disorder. A similar study by Silverstone (1996) used semi-structured psychiatric interview of 313 consecutively admitted patients in Canada. Some 27.2% of this sample was considered to have a mental disorder. Arolt et al. (1997) found through clinical interview that 46.8% of their sample of non-psychiatric hospital patients had a mental disorder. Some 16.5% of these diagnoses were for organic mental disorders. A study by Hansen et al. (2001) found that 4.1% of their sample of medical inpatients was given discharge diagnoses that included a mental disorder. After they conducted interviews with the sample, 38.7% were identified as having a mental disorder.

Internationally, Clarke, Minas, and Stuart (1991) found an overall prevalence of 30% in an Australian non-psychiatric hospital. This consisted primarily of depression and anxiety disorder diagnoses. Prevalence was higher in medical (45%) than in surgical (23%) inpatients. In a more recent Australian study, Lai and Huang (2009) examined prevalence and comorbidity of mental health disorders and substance-use disorders in psychiatric and non-psychiatric hospitals. Of 1,592,156 admissions to these hospitals 91,510 (6%) had at least one diagnosis of a mental disorder, and 18,283 (1%) had a substance-use disorder. The results of this study should be interpreted with caution as it includes data from psychiatric hospital stays.

It is clear from these studies that there is significant variation in prevalence. Some of the variations could be attributed to methodological differences, particularly the inclusion or exclusion of patients with organic and substance-use disorders. The use of interview versus administrative data to identify those with mental disorder also contributes to the varying results.

In the context of this substantial prevalence of mental disorder in medical and surgical units, the attention of many researchers, from both mental health and medical fields, has been drawn to the care of those in such settings. Questions have been raised about the appropriate and timely referral of patients to specialty psychiatric services during their inpatient stay. A measure often used in the literature is the referral rate to mental health or psychiatry services.

Studies that have assessed the frequency of mental health or psychiatry referral suggest that between 1% and 10% of non-psychiatric hospital inpatients will receive such a referral. Krautgartner, Alexandrowicz, Benda, and Wancata (2006) found that 10% of 728 patients in a variety of Austrian medical and surgical units received a psychiatric consultation or referral while in hospital. Further, it was found that a significant gap existed between the number of patients referred and the actual need for psychiatric intervention. Of those that required psychiatric consultation or referral 33.3% received it ('needs met') while 66.7% did not ('unmet needs'). Martucci et al. (1999), in a study discussed above in relation to prevalence, found around 6% of their sample, or 23% of those with mental disorder, received a consultation or referral. Schellhorn, Barnhill, Raiteri, Faso, and Ferrando (2009) found in a retrospective chart review that just over 3% of patients admitted to a New York, US, hospital received a psychiatric consultation or referral. The study found that geriatric patients were referred at a rate of 1.5 times that of non-geriatric patients. Elaborating on the the prevalence findings of Hansen et al. (2001) above, it was found that 2.7% of all patients received a psychiatric consultation, which represented 11.7% of those identified as have a mental disorder. Some 82% of patients with a mental disorder in their sample were not in treatment for their mental disorder nor did they receive psychiatric consultation or referral. The reasons for differences in referral are not apparent from this research, although it is speculated that it may be associated with a lack of clear referral pathways or a lack of skill in identifying mental disorders.

Disparities in Medical and Surgical Care

There is a growing body of evidence that suggests there is a level of disparity in the provision of medical and surgical care for those with mental disorder. These disparities relate to the type and frequency of treatments, interventions and procedures offered to, and used by, those with mental disorder. These disparities may account for a portion of the increased morbidity and mortality of those with mental disorder.

A number of studies have identified differing rates of invasive cardiac diagnostic and revascularisation procedures, which are considered important options in the treatment of those with cardiovascular disease (CVD) to avert death and improve quality of life (Eagle et al. 2004). In Australia through retrospective analysis of administrative data, Lawrence, Holman, Jablensky, and Hobbs (2003) showed that patients with mental disorders were less likely to undergo intervention for ischaemic heart disease (IHD) than patients without mental disorder. Despite having elevated risk profiles and an increased mortality rate for IHD, people with most mental disorders were less likely to undergo revascularisation procedures (coronary artery bypass graft [CABG] and removal of coronary artery obstructions).

In a similar study Kisely et al. (2007) used data from various Canadian sources to assess whether mental disorder was associated with reduced utilisation of revascularisation procedures. The study found that patients with a mental disorder had an increased mortality rate (rate ratio [RR] = 1.34) but a reduced rate of procedures.