LOCKED DOORS IN ACUTE INPATIENT PSYCHIATRY: A LITERATURE REVIEW

ABSTRACT

Background: Many acute inpatient psychiatric wards in the UK are permanently locked, although this is contrary to the current Mental Health Act Code of Practice.

Aim: To conduct a literature review of empirical articles concerning locked doors in acute psychiatric inpatient wards.

Method: An extensive literature search was performed in SAGE Journals Online, EBM Reviews, BNI, CINAHL, EMBASE Psychiatry, International Bibliography of the Social Sciences, Ovid MEDLINE(R), PsycINFO and Google, using the search terms "open$", "close$", "$lock$", "door", "ward", "hospital", "psychiatr", "mental health", "inpatient" and "asylum".

Findings: A total of 11 empirical papers were included in the review. Both staff and patients reported advantages (e.g. preventing illegal substances from entering the ward and preventing patients from absconding and harming themselves or others) and disadvantages (e.g. making patients feel depressed,

confined and creating extra work for staff) regarding locked doors. Locked wards were associated with increased patient aggression, poorer satisfaction with treatment and more severe symptoms.

Conclusion: The limited literature available showed the urgent need for research to determine the real effects of locked doors in inpatient psychiatry.

Keywords: acute psychiatric inpatient, closed ward, locked door, locked door policy, psychiatric inpatient ward, ward door.

INTRODUCTION

In recent years, psychiatric inpatient wards in the UK went through several phases, where doors were either open or locked. Asylums of the nineteenth century were located outside of a town or city, with large buildings, widespread grounds and few patients (Boardman 2005). During World War I (1914-1918) the majority of staff were drafted for war, bigger asylums were used as military hospitals and displaced patients overcrowded the remaining asylums (Jones 1960). Lack of resources and poor treatment was common and patients were kept under lock and key (Clarke 1993; Ryan 1956; Sacks et al. 1982).

After WWI, the eventual understanding given to soldiers suffering from shell shock (Barham 2004), led directly to the first proposal for the Mental Health Act 1930. This act made provision for voluntary admission to mental hospitals, so asylums started to build or open wards, which were not locked, for patients who were treated voluntarily (Jones 1960).

The Second World War (1939-1945) again transformed psychiatric hospitals into custodial, locked places (Cherry 2003; Clarke 1993), but after WWII, almost all hospitals embraced the "open door" policy (Murphy 1991). This "open door" policy included quick admission, vigorous medical treatment and early discharge. The harmful consequences of total institutions and fear of "institutionalisation" encouraged mental health staff to seek alternative ways to care for the mentally ill (Murphy 1991). The early 1960s saw the beginning of the community care era and this has remained official policy ever since (Department of Health 2008; Gostin 1986; Jones 1960). By the 1970s all non-forensic psychiatric ward doors were open, and the first locked psychiatric intensive care units (PICU's) were created for patients unmanageable on open wards (Crowhurst & Bowers 2002).

Today, many modern inpatient wards have become permanently locked, although this is contrary to the current Mental Health Act Code of Practice (Department of Health and Welsh Office 2007). A survey of London wards in 2001 found 25% to be

permanently locked (Bowers et al. 2002), and by 2005 a national survey found 'frequent' use of door locking on 37% of inpatient psychiatric wards (Garcia et al. 2005). More recently, the Mental Health Act Commission reported that patients admitted to acute wards in the UK were more likely to be held in a locked ward than an open ward – regardless of their legal status (Mental Health Act Commission 2008). Informal patients on a locked ward may leave the ward at request, although this is not always the case, so more and more informal patients are subjected to *de facto* detention. Internationally, this trend towards a locked environment is reflected in a paper presenting data obtained in a one-day census investigation in five European countries (Austria, Hungary, Romania, Slovakia, Slovenia). The census forms were filled in for 4191 psychiatric inpatients and 21.4% were treated in a ward with locked doors (Rittmannsberger et al. 2004).

Some using the closed ward system believed that it might seem like a backwards step in modern psychiatry, but that a carefully planned policy actually results in better patient care (Adams

2000). Other commentators suggested that England is entering an era of reinstitutionalisation (Priede et al. 2005), because although there is a decrease in psychiatric hospital beds, there is an increase in involuntary admissions, forensic beds, places in supported housing and the prison population in England. Quirk, Lelliot and Seale (2006) offered a modern look on the total institution model and state that despite the increase in locked hospitals, modern institutions are more permeable and showed little evidence of institutionalisation. More permeable hospitals do however forfeit some beneficial "asylum functions", e.g. patient experienced continued personal responsibility, such as bills and family matters, and unwanted persons and illegal drugs could enter the hospital more easily (Quirk et al. 2006).

Despite guidelines from the Department of Health, many acute inpatient units still struggle to define how they operate (Boardman 2005). This is echoed in a recent study where nurses were unable to clearly recall any guidelines or policies available to aid their decision regarding locking the ward door (Ashmore 2008). Mental health service managers are, at present, being

forced into taking decisions on door locking policy, without any modern central guidance from the Department of Health (Bowers et al. 2005). A discussion paper by Rae (2007) highlights this need to review the current open door policy by listing arguments for and against locked doors. He suggests that further research is urgently needed to create a modern Code of Practice to assist mental health services to provide safe care.

METHOD

A search, using a combination of the search terms "open$"/ "close$"/"$lock$", "door"/"ward"/"hospital" and "psychiatr"/"mental health"/"inpatient"/"asylum", were conducted on EBM Reviews, British Nursing Index (BNI), CINAHL 1982 to 2007, EMBASE Psychiatry 1997 to 2007, International Bibliography of the Social Sciences 1951 to 2007, Ovid MEDLINE(R) 1950 to 2007, and PsycINFO 1806 to 2007 and yielded 66 hits. A second search was conducted on SAGE Journals Online (History of Psychiatry Journal) (129 hits) and on Google and Google Scholar (because of an overwhelming

number of hits, only the first 500 items of both were inspected). Inclusion criteria included English empirical papers concerning locked doors in acute inpatient psychiatry. Exclusion criteria included open inpatient wards, PICU wards, older patient wards, adolescent wards, forensic wards, and non-English language papers. Resulting titles and abstracts were inspected for relevance. Where there was ambiguity, the original paper was obtained and inspected. The resulting list of 78 abstracts was then individually sifted. This resulted in a small core of papers from which a few further references on the topic were identified by following up citations.

RESULTS

A total of 11 empirical papers were found on studies concerning locked doors in acute inpatient psychiatry (see table 1). Seven studies were from Europe, three from America and one from China. The studies were predominantly descriptive and six papers were recent (post - 1999) contributions to the literature. Five studies reported interviews; four papers reported

questionnaire surveys, one paper described a focus group and one study was a randomised control trial. Eight out of the eleven studies involved patients.

Table 1: Summary of review papers

Author	Country	Methodology	Sample	Setting
Adams, B. (2000)	UK	Audit of official records Focus group Questionnaire survey	6 patients (focus group) 23 discharged patients (survey)	58-bed acute psychiatric hospital.
Ashmore, R. (2008)	UK	Semi-structured interviews	11 qualified nurses	7 adult acute care wards across three NHS Trusts.
Folkard, S. (1960)	UK	Systematic record analysis	45 female patients	1 female disturbed ward.
Haglund, K. & Von Essen, L. (2005)	Sweden	Semi-structured interviews	20 voluntary admitted patients	7 Swedish psychiatric inpatient wards.
Haglund, K., et al. (2007)	Sweden	Cross-sectional questionnaire survey	193 ward managers	All psychiatric inpatient wards in Sweden (except forensic and private wards).
Haglund, K., et al. (2006)	Sweden	Semi-structured interviews	20 nurses and 20 mental health nurse assistants	7 Swedish psychiatric inpatient wards.
Ryan, J. H. (1962)	USA	Interviews	100 male patients	172-bed psychiatric wing of a Veterans hospital.
Sacks, M. H., et al. (1982)	USA	Questionnaire survey	85 members of staff and 65 patients	2 locked and 2 open units of a psychiatric clinic in a state hospital.
Dumont, M., et al. (1960)	USA	Official record analysis Observations Unstructured interviews Written opinions	Patients (interviews) Staff (written opinions)	19 bed unit (11 in closed section and 8 in open section separated by a locked steel door).
Jin, Z. (1994)	China	Single-blind randomised control trial	50 female patients suffering from schizophrenia	1 locked female ward in a community psychiatric hospital.
Muller, M.J. (2002)	Germany	Self-rating questionnaire	135 male and female patients	2 wards of a psychiatric university hospital.

Six studies investigated advantages and disadvantages reported by staff with regards to locked doors (Adams 2000; Ashmore 2008; Dumont et al. 1960; Haglund et al. 2007; Haglund et al. 2006; Sacks et al. 1982). Five studies investigated advantages and disadvantages reported by patients regarding locked doors (Adams 2000; Dumont et al. 1960; Haglund & Von Essen 2005; Ryan 1962; Sacks et al. 1982). One paper focussed on

aggression in inpatient wards (Folkard 1960), one on patients' satisfaction with treatment and door status (Muller et al. 2002) and another investigated the effects of the door status on patients' residual symptoms (Jin 1994).

Advantages of locked doors reported by patients

Four studies reviewed reported patient support for locked doors (Adams 2000; Haglund & Von Essen 2005; Ryan 1962; Sacks et al. 1982). Patients indicated that locked doors made them feel safe and made those patients, who were unable to control themselves, feel more secure (Adams 2000; Sacks et al. 1982). Locked doors provided them and staff with protection against unwanted visitors, stealing and the import of alcohol or illegal substances (Haglund & Von Essen 2005). This protection was seen as the main therapeutic advantage of a locked ward (Ryan 1962). Patients also indicated that locked doors offered protection to the outside community, by preventing patients from leaving the ward and harming others (Ryan 1962).

Some patients reported that locked doors gave staff the necessary control to provide efficient care (Haglund & Von Essen 2005). Others stated that they think relatives feel more relieved when the door was locked (Sacks et al. 1982).

Disadvantages of locked doors reported by patients

In four studies patients indicated that being on a locked ward was a discouraging experience (Adams 2000; Dumont et al. 1960; Haglund & Von Essen 2005; Sacks et al. 1982). Locked doors made them feel trapped, confined, and passive (Dumont et al. 1960; Haglund & Von Essen 2005; Sacks et al. 1982). Patients also felt that locked doors highlighted the staffs' power and made them feel depressed and anxious. One study indicated that the patients on an open unit required more sedative medication and were more anxious before their ward was temporarily merged with a locked unit (Dumont et al. 1960). After the redivision patients on the locked unit showed a peak in sedation orders.

Lastly, some patients reported that locked doors created extra work for staff, because they have to open and lock doors constantly (Haglund & Von Essen 2005). Others stated that the rattling of keys in locks reminded them of prison (Adams 2000; Haglund & Von Essen 2005).

Advantages of locked doors reported by staff

Five studies indicated that the main reason given by staff for locking the ward door was to create safety and security (Adams 2000; Ashmore 2008; Haglund et al. 2007; Haglund et al. 2006; Sacks et al. 1982). Staff felt locked doors prevented patients from absconding and of harming themselves or others (Adams 2000; Ashmore 2008; Haglund et al. 2007) and made patients, who were unable to control themselves, feel more secure (Haglund et al. 2007; Haglund et al. 2006; Sacks et al. 1982). Some staff also indicated that locked doors prevented unwelcome visitors or illegal substances from entering the ward (Adams 2000; Ashmore 2008; Haglund et al. 2007; Haglund & Von Essen 2005) and others indicated that locked doors

provided staff with control to manage the ward properly (Haglund et al. 2006; Haglund et al. 2007).

A locked ward created a more therapeutic ward atmosphere, because staff can spend more time with patients instead of constantly watching the door (Ashmore 2003). Staff stated that locking and unlocking the ward door created opportunities to do a quick assessment of a patient's mental health before they go out or created time to reassure family members that their loved one is in safe hands (Ashmore 2008; Haglund et al. 2006).

Other reasons why staff locked the ward door was because of a pending forensic assessment, staff shortages or legislation (Adams 2000; Haglund et al. 2007). Staff also indicated that locked doors reduced the need for special constant observation, as well as the need to section or restraint patients who are at risk of absconding (Ashmore 2003).

Disadvantages of locked doors reported by staff

In four papers members of staff expressed concerns regarding locking ward doors (Ashmore 2008; Dumont et al. 1960; Haglund et al. 2006; Sacks et al. 1982). Some staff complained about the extra work the unlocking and locking of doors created (Ashmore 2003; Dumont et al. 1960; Haglund et al. 2006). Staff also indicated that locked doors created a more volatile ward environment, because patients became upset, and staff as well as patients felt frustrated (Ashmore 2003; Haglund et al. 2006; Sacks et al. 1982).

Staff stated that locked doors reinforced the stigma surrounding mental illness and restricted the movement of informal patients (Ashmore 2003). Staff reported that some patients may experience the locked door as punishment (Dumont et al. 1960) and that the locked door emphasised the power imbalance between staff and patients (Haglund et al. 2006). Lastly, staff felt the locked door made visitors feel unwelcome.

Aggressive incidents and the door status

One paper focussed on aggression with regards to locked doors. Folkard (1960) monitored the incidents of aggressive behaviour for 20 consecutive weeks: the first 10 weeks the door was kept locked, and the last 10 weeks the door was opened for the first time.

During the locked phase there were 249 aggressive occurrences and during the unlocked phase only 193. This reduction in aggressive incidents coincided with the decrease in actions taken by the staff (from 57 during the locked phase to 46 during the unlocked phase). Staff actions included sedation, E.C.T. or putting the patient to bed. Folkard (1960) noted that staffing levels may also influence aggression (Folkard 1960).

Patients' satisfaction with treatment and the door status

One study reported on patients' satisfaction with treatment and the door status (Muller et al. 2002). At admission, patients in a closed ward were significantly less satisfied with ward equipment and regulations for going out than patients admitted

to an open ward. At discharge patients from the locked ward were significantly less satisfied in general, with medication, ward equipment, visiting opportunities and with regulations for going out than patients discharged from open wards. There were no differences in satisfaction at discharge or admission between patients from a locked or open ward in satisfaction with medical staff, nursing care, nursing staff, social programme on the ward, food, or in mood ratings. The influences of patients' individual diagnosis and treatment were not considered.

Patients' symptoms and the door status

One study investigated the effects of the door status and structured activities programme on patients' symptoms (Jin 1994). Fifty female patients on the same locked ward were randomly assigned to control and experimental groups. The experimental group were given as much freedom as possible and were encouraged to take part in structured activities. The control group were not permitted to leave the ward and did not take part in the activities.

After six months, the experimental group, but not the control group, showed improvement in physical energy, psychomotor activation and hostility-suspiciousness symptoms (Jin 1994). Overall, the experimental group had less severe symptoms at the end of the intervention than the control group. Although the effects of the structural activities programme cannot be separated from the effects of the open door treatment, there was a significant improvement in residual symptoms of those patients receiving open door treatment.

DISCUSSION

The literature on locked doors in inpatient psychiatric wards was inconclusive regarding the effects of locked doors. While there were ample empirical (Scott 1956; Wake 1961; Wisebord et al. 1958) and non-empirical literature (Ryan 1956; Snow 1958; Koltes 1956) from the 1950s and 1960s regarding the open door, there was very little on locked doors.

From this review it was clear that staff and patients felt a locked door would prevent patients from absconding and harming others. Yet in a large retrospective study of absconding at All Saints Hospital in Birmingham, just under half of all absconds occurred from locked wards (Antebi 1967). Somewhat similarly, Coleman (1966) reports 20% of absconds, and Richmond et al. (1991) 21%, at Veterans Hospitals in the US were from locked wards. However Swindall and Molnar (1985) reported that on the opening of a locked ward in 1981, absconds rose from 2.5% of admissions to 7% (Swindall & Molnar 1985).

Both staff and patients felt that locked doors would prevent patients from harming themselves. However, two studies on suicide showed that suicides were no more likely to occur with locked ward patients than open ward patients (Deisenhammer et al. 2000; Niskanen 1974).

Staff and patients reported that locked doors offered protection from the outside community by preventing illegal substance from entering the ward; however replies to a more dated

questionnaire surveying 483 open Canadian psychiatric wards indicated that the smuggling of alcohol and drugs did not increase with the opening of ward doors (Wake 1961). There was no empirical evidence found on substance misuse and door status for wards in the UK, although there was evidence that 83% of inner-London psychiatric inpatients with a history of alcohol or drug use reported that they continued to use illegal substances in inpatients psychiatric wards during their admission (Phillips & Johnson 2003).

Both staff and patients agreed that the locked door offered staff the necessary control to provide efficient care and management of the ward; however other patients and staff saw this control as derogatory, because it highlighted the staff's power over the patients. Both experienced the locked door as restrictive and compared it to a prison-like environment where patients may feel punished, instead of cared for. According to Muller et al. (2002), patients treated on a locked ward were less satisfied with regulations of going out than patients treated on an open ward. Patient treated on a locked ward also felt more passive and did

not show a significant improvement in their physical energy levels, compared to patients receiving open door treatment (Jin 1994). Both staff and patients recognised the need for staff to be in control, but they felt this control came at the expense of the patients' freedom.

Some staff and patients agreed that locked doors offered relief to relatives and friends, while others indicated that locked doors may make visitors feel unwelcome. Although patients discharge from a locked ward were less satisfied with the visiting opportunities from relatives and friends than those on an open ward (Muller et al. 2002), there was no empirical evidence to indicate how acceptable locking the door is to family and friends.

Staff and patients blamed the locked door for creating extra work for staff, because they have to open and lock the door constantly. Other members of staff did not mind the opening and locking of the door and saw it as a therapeutic opportunity to have interaction with patients. They also believed locked doors

reduced the need for constant observation, the use of restraint and is a solution to staffing shortages. No other empirical study was found on the subject of door policy and staff workload.

Some staff believed that locked doors created a more volatile work environment, because patients became upset, and staff as well as patients felt frustrated. Folkard (1960) reported an increase of aggressive incidents when doors were locked. In a more recent study, Jin (1994) indicated that patients treated on a locked ward did not experience a significant improvement in hostility-suspiciousness scores and overall had more severe symptoms, compared to those treated on an open ward. Some patients reported that they felt more depressed and anxious when treated in a locked ward; however Muller et al. (2002) reported no difference in mood ratings, and Jin (1994) no difference in depression and anxiety scores, between patients treated on a locked ward and those treated on an open ward.

The small amount of literature available, the majority being descriptive, showed that there is a huge shortage of research into

the effects of locked doors in inpatient psychiatry, both nationally and internationally. Only six papers were recent (post-1999) contributions to the literature, opinions of staff were poorly represented, sample sizes were small and the majority of patients interviewed were females suffering from schizophrenia.

Studies using larger, well represented populations are urgently needed to provide a better understanding of the effects of different door policies on inpatient care. The actual impact of the door policy on absconds, substance misuse, suicides or patient safety should also be examined. The relative effects of an entirely locked ward, an entirely open ward, a ward that is sometime locked and a ward with an available PICU should be explored. Studies designs that would give a more global and in-depth observation of the effects of different door policies in psychiatric inpatient care would include quasi-experimental design studies, longitudinal studies or cross-sectional studies.

CONCLUSION

The small amount of literature on locked doors in inpatient psychiatry was inconclusive regarding the effects of locked doors. This lack of research could be the reason why increasingly more modern inpatient wards are permanently locked, although this is contrary to the current Mental Health Act Code of Practice (Department of Health and Welsh Office 2007). Before history repeats itself, it is crucial to undertake further empirical research to understand the real impact of locked doors. These results will help policy makers and managers decide if it is more beneficial to have permanently closed psychiatric wards or wards with permanently open doors to ensure optimal patient care.

LIMITATIONS

This review was severely limited by only including studies conducted in locked psychiatric inpatient wards or those comparing locked wards with open wards. A few of the included papers were very old and it is questionable if results could be generalised to the modern institutions of today.

References

Boardman, J. 2005, "Beyond the Water Towers - The unfinished revolution in mental health services," The Sainsbury Centre for Mental Health.

Jones, K. 1960, *Mental Health and Social Policy, 1845-1959* London: Routledge and Kegan Paul.

Clarke, L. 1993, "The opening of doors in British mental hospitals in the 1950's", *History of Psychiatry*, vol. 4, pp. 527-551.

Ryan, J. P. A. 1956, "The open door system in the mental hospital", *Journal of the Irish Medical Association*, vol. 39, no. 234, pp. 175-179.

Sacks, M. H., Nininger, J. E., & La Torre, V. 1982, "Patient and Staff Attitudes Toward Locked and Unlocked Units", *Hospital & Community Psychiatry* pp. 152-153.

Barham, P. 2004, *Forgotten Lunatics of the Great War* Yale University Press, New Haven.

Cherry, S. 2003, *Mental health care in modern England*, The Boydell Press, Suffolk.

Murphy, E. 1991, *After the Asylums - Community care for people with mental illness* Faber and Faber Ltd., London.

Department of Health 2008, *Refocusing the Care Programme Approach: Policy and Positive Practice Guidance* London.

Gostin, L. 1986, *Institutions observed : towards a new concept of secure provision in mental health* King Edward's Hospital Fund for London, London.

Crowhurst, N. & Bowers, L. 2002, "Philosophy, care and treatment on the psychiatric intensive care unit: themes, trends and future practice", *Journal of Psychiatric and Mental Health Nursing*, vol. 9, pp. 689-695.

Holloway, F., Carson, J., & Davis, S. 2002, "Rehabilitation in the United Kingdom: Research, policy, and practice", *Canadian Journal of Psychiatry*, vol. 47, no. 7, pp. 628-634.

Department of Health and Welsh Office 2007, *Code of Practice: Mental Health Act 2007* HMSO, London.

Bowers, L., Alexander, J., Callaghan, P., Eales, S., Guy, S., McCann, E., & Ryan, C. 2002, "Safety and security

policies on psychiatric acute admission wards: results from a London-wide survey", *Journal of Psychiatric and Mental Health Nursing*, vol. 9, pp. 427-433.

Garcia, I., Kennett, C., Quraishi, M., & Durcan, G. 2005, *Acute Care 2004. A national survey of adult psychiatric wards in England* Sainsbury Centre for Mental Health, London.

Rittmannsberger, H., Sartorius, N., Brad, M., Burtea, V., Capraru, N., Cernak, P., Dernovçek, M., Dobrin, I., Frater, R., Hasto, J., Hategan, M., Haushofer, M., Kafka, J., Kasper, S., Macrea, R., Nabelek, L., Nawka, P., Novotny, V., Platz, T., Pojar, A., Silberbauer, C., Fekete, S., Wancata, J., Windhager, E., Zapotoczky, H.-G., & Zöchling, R. 2004, "Changing aspects of psychiatric inpatient treatment. A census investigation in five European countries", *European Psychiatry*, vol. 19, pp. 483-488.

Ashmore, R. 2008, "Nurses' accounts of locked ward doors: ghost of the asylum or acute care in the 21st century?", *Journal of Psychiatric and Mental Health Nursing*, vol. 15, pp. 175-185.

Adams, B. 2000, "Locked doors or sentinel nurses?", *Psychiatric Bulletin*, vol. 24, pp. 327-328.

Priede, S., Babesconyi, A., Fioritti, A., Hansson, L., Killian, R., Torres- Gonzales, F., Turner, T., & Wiersman, D. 2005, "Reinstitutionalisation in mental health care: comparison of data on service provision from six European countries", *British Medical Journal*, vol. 330, pp. 123-126.

Quirk, A., Lelliot, P., & Seale, C. 2006, "The permeable institution: An ethnographic study of three acute psychiatric wards in London", *Social Science & Medicine*, vol. 63, pp. 205-2117.

Bowers, L., Simpson, A., Alexander, J., Hackney, D., Nijman, H., Grange, A., & Warren, J. 2005, "The Nature and Purpose of Acute Psychiatric Wards: The Tompkins Acute Ward Study", *Journal of mental Health*, vol. 14, no. 6, pp. 625-635.

Mental Health Act Commission 2008, *Risk, Rights, Recovery.*

Rae, M. Review of open door policy in acute inpatient wards - a discussion paper. Version 10.

http://www.nimhe.csip.org.uk/silo/files/reviewofopendoorsfinalapril20072doc.doc
Ref Type: Electronic Citation

Dumont, M., Daniels, R. S., Margolis, F. M., Carson, R. C., & Ham, J. 1960, "Patients and staff reaction to a change in procedure on a psychiatric ward", *Disease of the Nervous System*, vol. 21, pp. 209-212.

Haglund, K., Van Der Meiden, E., Von Knorring, L., & Von Essen, L. 2007, "Psychiatric care behind locked doors. A study regarding the frequency of and the reasons for locked psychiatric wards in Sweden", *Journal of Psychiatric and Mental Health Nursing*, vol. 14, pp. 49-54.

Haglund, K., Von-Knorring, L., & von-Essen, L. 2006, "Psychiatric wards with locked doors - advantages and disadvantages according to nurses and mental health nurse assistants", *Journal of Clinical Nursing*, vol. 15, pp. 387-394.

Haglund, K. & Von Essen, L. 2005, "Locked entrance doors at psychiatric wards - Advantages and disadvantages according to voluntarily admitted patients", *Nordic Journal of Psychiatry*, vol. 59, no. 6, pp. 511-515.

Ryan, J. H. 1962, "The therapeutic value of a closed ward", *Journal of Nervous and Mental Disease*, vol. 134, pp. 256-262.

Folkard, S. 1960, "Aggressive behaviour in relation to open wards in a mental hospital.", *Mental hygiene*, vol. 44, pp. 155-161.

Muller, M. J., Schlosser, R., Kapp-Steen, G., Schanz, B., & Benkert, O. 2002, "Patients' satisfaction with psychiatric treatment: comparison between an open and a closed ward", *Psychiatric Quarterly*, vol. 73, no. 2, pp. 93-107.

Jin, Z. 1994, "Effect of an open-door policy combined with a structural activity programme on the residual symptoms of schizophrenic in-patients", *British Journal of Psychiatry*, vol. 165, no. 24, pp. 52-57.

Ashmore, R. 3 A.D., "Mental Health Nurses Perception of Locked Doors on 'Open' Acute Inpatient Wards in the UK", Tampere, Finland.

Scott, D. 1956, "Chronic mental patients' reactions to opening their ward", *American Journal of Psychiatry*, vol. 113, p. 366.

Wake, F. R. 1961, "Some observations on the "open door" in Canadian and other hospitals", *Canadian Psychiatric Association Journal*, vol. 6, no. 2, pp. 96-102.

Wisebord, N., Denber, C. H., Charatan, F. B., & Travis, J. H. 1958, "Patient reactions to the "open door"", *American Journal of Psychiatry*, vol. 115, no. 6, pp. 518-521.

Snow, H. B. 1958, "The open door hospital", *Canadian Journal of Public Health*, vol. 49, no. 9, pp. 363-369.

Koltes, J. A. 1956, "Mental hospitals with open doors", *American Journal of Psychiatry*, vol. 113, pp. 250-253.

Antebi, R. 1967, "Some characteristics of mental hospital absconders", *British Journal of Psychiatry*, vol. 113, pp. 1087-1090.

Swindall, L. E. & Molnar, G. 1985, "Open doors and runaway patients: A management dilema", *Perspectives in psychiatric nursing*, vol. 23, no. 4, pp. 146-149.

Deisenhammer, E., DeCol, C., Honeder, M., & Hinterhuber, H. 2000, "In-patient suicide in psychiatric hospitals", *Acta Psychiatrica Scandinavica*, vol. 102, pp. 290-294.

Niskanen, P. 1974, "Suicide in Helsinki psychiatric hospitals 1964-1972", *Pschiatria Fennica*, vol. 1974, pp. 275-280.

Phillips, P. & Johnson, S. 2003, "Drug and Alcohol Misuse Among In-Patients with Psychotic Illnesses in Three Inner-London Psychiatric Units", *Psychiatric Bulletin*, vol. 27, no. 217, p. 220.

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