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A systematic review of factors associated with service user satisfaction with psychiatric inpatient services

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Abstract

Background

Satisfaction is seen as an indicator of the quality of mental health services and has been related to outcomes and compliance with treatment. The current review seeks to examine the factors relating to satisfaction with inpatient services.

Method

A search was conducted of PsycInfo, Web of Science, Cinahl, Embase and Medline databases. Screening resulted in 32 papers being included in the review. Papers were subject to quality assessment using the Mixed Methods Appraisal Tool (MMAT).

Results

Review of the included papers suggested factors relating to satisfaction could be broadly classified as either service user or service/ward related. Service user related factors included findings that satisfaction was higher when service users were admitted voluntarily. Service related factors included findings that satisfaction was negatively associated with experiences of coercion and positively associated with being on an open ward.

Conclusion

It appears that coercion has a key role in ratings of satisfaction. Additionally, service users reported an impact of staff relationships, and the ward environment. Satisfaction is associated with a range of factors, an awareness of which will allow for the development of quality services that meet the needs of service users.

1 Introduction

Public attention has increasingly been directed to concerns regarding the quality of psychiatric inpatient provision, with headlines such as ‘Mental health patients forced to travel miles for care’ (BBC News, 2014) and ‘Cost of not caring: nowhere to go – the financial and human toll for neglecting the mentally ill’ (USA Today, 2014) becoming increasingly common. The Kings Fund have reported widespread evidence of failures in quality of care in inpatient mental health services in England (Gilburt, 2015). Satisfaction with health care services is increasingly seen as an important indicator of quality of care not only in mental health services (Al-Abri and Al-Balushi, 2014; Bleich et al., 2009; Shipley et al., 2000; Williams and Wilkinson, 1995) but also within physical health services, such as cancer treatment (Harrison et al., 2009), cardiovascular care (Greco et al., 2015), pain management (Stang et al., 2014) and primary care (Paddison et al., 2015). Service users have a unique perspective on services, and their views can be used to ensure that services are of high quality (Larsen et al., 1979; Smith et al., 2014). Without this perspective, service evaluations are naturally biased towards provider and clinician views (Larsen et al., 1979). Indeed, service user-rated satisfaction has been shown to be a more reliable indicator of service quality than referrer or clinician rating, when ratings from the three groups were compared in relation to five distinct service sectors (Shipley et al., 2000). Satisfaction can also be seen as an important outcome indicator, with evidence suggesting that high satisfaction is linked with increased compliance with treatment, and an increased likelihood of completing treatment regimens (Bleich et al., 2009; Henderson et al., 1999; Williams and Wilkinson, 1995). Dissatisfaction has been found to increase the likelihood of service users disengaging from, and failing to complete, treatment programmes (Henderson et al., 1999). This is particularly problematic in inpatient services, especially in the case of those who are involuntarily detained. Disengagement and non-compliance with treatment in inpatient settings can lead to coercion (Fiorillo et al., 2012), and therefore has wide ranging implications for service user and staff welfare. In order to develop satisfactory services, it is necessary to understand the factors that affect service users' satisfaction with services.

The literature relating to satisfaction with health care has historically been subject to methodological concerns (Bleich et al., 2009; Druss et al., 1999; Henderson et al., 1999; Larsen et al., 1979; Nguyen et al., 1983; Williams and Wilkinson, 1995). Factors thought to be related to service user satisfaction have been inconsistently linked, to the extent that some have dismissed the possibility of links between service user satisfaction and sociodemographic characteristics as these links are perceived to be unreliable (Carr-Hill, 1992). Many researchers have commented on the lack of a unified concept of satisfaction and the challenges this has created in developing an evidence base around related factors (Bleich et al., 2009; Williams and Wilkinson, 1995). Historically, the views of mental health service users have been disregarded due to a belief that they lack the insight and ability to evaluate mental health services (Ruggeri et al., 2003; Williams and Wilkinson, 1995). Evidence that service users' satisfaction is a more accurate predictor of the quality of services than other measures has contributed to a shift in this view (Shiple y et al., 2000). In recent decades there has been a move towards examining the levels of satisfaction in users of psychiatric services (Zendjidjian et al., 2014). Corrigan (1990) conducted a review relating to satisfaction with inpatient and community psychiatric services, finding that age and time in education were both positively correlated with satisfaction (Corrigan, 1990). However, Corrigan noted that the majority of research conducted was qualitative, which may have accounted for the consistently high ratings of satisfaction. In the time since Corrigan's review, health services have changed significantly. There has been a move towards increased community care, with reduced capacity in inpatient services. It is likely that these changes have impacted on the experiences of service users.

1.1 Aims of the study

The current study aims to provide an up-to-date review examining the factors associated with satisfaction with inpatient services. In doing so it will generate a model about the processes and mechanisms involved in influencing satisfaction in these settings. Inpatient admissions for mental health problems are essentially complex interventions and as such it is important to utilise empirical research to generate theories about the processes which determine how these interventions work with a view to maximising future effectiveness in terms of patient outcomes including patient satisfaction (Medical Research Council, 2000, 2008).

2 Method

2.1 Eligibility criteria

A full list of inclusion criteria can be seen in Table 1. Studies were excluded if they related specifically to the development or psychometric properties of a measure, if the inpatient experience was related to physical health, learning disability, child and adolescent, or older adult services, in order to ensure a homogenous sample, and if the views of inpatients were inseparable from those of another group (e.g. staff, carers).

Table 1 Inclusion criteria.

Inclusion criteria
Sample of former or current inpatients
Include an exploration of service user views of the inpatient environment
Published in a peer reviewed journal
English Language
Published post-1990

2.2 Search strategy

The review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009). A search was conducted using PsycINFO, Medline, Embase, Web of Science and CINAHL electronic databases. Limits were set of 1990-present, English Language, and Journal Article. The terms used were: ‘client*’ OR ‘patient*’ OR ‘service user*’ OR ‘consumer*’ AND ‘satisfaction*’ OR ‘experience*’ OR ‘perception*’ OR ‘view*’ OR ‘opinion*’ OR ‘attitude*’ OR ‘evaluation*’ AND ‘severe mental*’ OR ‘schizophren*’ OR ‘psycho*’ OR ‘mental health*’ AND ‘inpatient*’ OR ‘ward*’ OR ‘psychiatr* serv*’.

2.3 Study selection and data extraction

The initial search yielded 16,595 results. Duplicates were removed, leaving 8738 studies. Full details of the stages of review, and the exclusions made at each stage can be found in Fig. 1. Thirty-two studies met the full inclusion criteria and were included in the final review. A data extraction sheet was developed and used to record sample size and characteristics, study methodology, quantitative measures or qualitative analysis used, key findings and themes,

and quality assessment score. Qualitative data was extracted from the relevant papers and synthesised using a textual narrative approach (Barnett-Page and Thomas, 2009).

Fig. 1 PRISMA flow diagram.

alt-text: Fig. 1

2.4 Quality assessment

A quality assessment of all included papers was conducted using the Mixed Methods Appraisal Tool (MMAT), which is designed to be used with reviews that include more than one type of methodology. In this review, papers used qualitative (n = 4), quantitative non-randomised (n = 4), quantitative descriptive (n = 20) and mixed methods (n = 4) designs. The MMAT has been shown to have good validity and reliability (Pluye et al., 2011). Quality assessment was conducted by the first author, with a portion of studies blind-rated by an independent second-rater. Inter-rater reliability was 92.9%, with a kappa value of 0.86 (p < 0.001), indicating almost perfect agreement (Cohen, 1960). The MMAT initially proposes two screening questions to assess whether there is an appropriate research objective, and whether the research design allows this objective to be addressed. Studies are rated based on four areas of methodology, which vary depending on study methodology. Papers were assessed as either meeting the criteria, or not, and each area represents 25% of the total quality score (ranging from 0% to 100%).

3 Results

3.1 Overview of studies

A full overview of the 32 included studies can be found in Table 2. The majority of studies used a quantitative descriptive design (n = 21). Four studies used a solely qualitative methodology, four used a non-randomised design, and four studies used a mix of quantitative and qualitative methodologies. The quantitative studies employed a variety of measures, including Client Satisfaction Questionnaire (CSQ-8/ZUF-8, n = 6), the Questionnaire of the Swedish Institute for development of the Health Service (SPRI, n = 5) and the Verona Service Satisfaction Scale (VSS, n = 2). Seven studies developed their own measures. Half of the qualitative studies, including mixed methods studies, used thematic analysis (n = 4). Additionally, two of the mixed methods studies used content analysis for the qualitative component of the study. The mean sample size for quantitative studies, including the quantitative component of mixed method studies, was 182.44 (range 25–433). Qualitative studies, including the qualitative component of mixed methods studies, had a mean sample size of 36.29 (range 6–119). One mixed methods study (Greenwood et al., 1999) qualitatively analysed comments returned with their quantitative measures. However, it was not clear how many of their sample (n = 433) had given comments, and therefore this number was not included in the mean calculation.

Table 2 Summary of findings.

alt-text: Table 2

Paper	Sample characteristics	Setting	Design	Measures/Analysis	Summary of main findings	Quality assessment score
Alexius et al. (2000)	N = 63 former inpatients, 3 months after their stay	Emergency psychiatric unit. Sweden	Descriptive cross-sectional	SPRI (Hansson and Hoglund, 1995)	Highest satisfaction was with the unit environment. Higher satisfaction with care provided than with information given. No effect of age or gender	50%
Barker et al. (1996)	N = 137 current inpatients	Acute Inpatient ward England	Descriptive cross-sectional	Bespoke questionnaire based on previous research, and staff and service user opinions. Piloted.	61.2% described themselves as satisfied with their care. Older patients were significantly more satisfied with care (Kendall's tau = 0.136, p = 0.03). Satisfaction was significantly lower in service users with non-affective psychosis ($\chi^2 = 12.24$, p = 0.02), those who were involuntarily admitted ($\chi^2 = 12.18$, p = 0.02), and those who felt they did not need to be in hospital (tau = 0.21, p = 0.0003). There was no effect of gender.	50%
Berghofer et al. (2001)	N = 165 current inpatients (N = 72 first time inpatients, N = 93 long-term inpatients.)	Two psychiatric wards Austria	Descriptive cross-sectional	Developed a questionnaire, rating satisfaction with staff, environment and other patients	Overall positive satisfaction scores - 60% first time, 68% long term. Most satisfied with staff, lest satisfied with other service users.	25%
Boydell et al. (2012)	N = 216 current inpatients with first episode psychosis	Three psychiatric wards. England	Descriptive cross-sectional	Acute Services Study Questionnaire (Sammut and Leff, 1995)	Mean number of items rated as satisfactory - 13 of 21. No difference between Black African and White British in terms of total mean satisfaction. Black Caribbean service users significantly less satisfied than White service users (t = 2.56, p = 0.006). Total satisfaction increased with age. No effect of gender, most social class groups, diagnosis of depression or compulsory treatment.	50%
Brunero et al. (2009)	N = 70 inpatients on day of discharge	Acute inpatient mental health unit. Australia	Descriptive cross-sectional	Developed a questionnaire based on national standards, and relevant literature.	Overall satisfaction score mean of 6.8 out of 10. Presence of community case manager significantly associated with higher overall satisfaction (f = 4.507, p = 0.037). Three questionnaire items significantly predicted satisfaction - happy with service provided by consumer support workers ($\beta = 0.96$, p < 0.001), confidence in level of support following discharge ($\beta = 0.64$, p = 0.007), feeling safe and secure of the ward ($\beta = 0.53$, p = 0.022). These items accounted for 50% of the variation in the overall satisfaction scale (adjusted $r^2 = 0.51$). Ward cleanliness was highly rated overall (3.8/5), but was significantly lower in those who were in their first admission ($\chi^2 = 10.05$, p = 0.04)	25%
Cleary et al. (2009)	N = 100 inpatients admitted to a new facility	Adult mental health facility Australia	Descriptive cross-sectional	Inpatient Evaluation of Services Questionnaire (Meehan et al., 2002)	44% of patients rated their overall stay as better than expected. Overall satisfaction mean score was 3.13/5. No significant effects of gender or number of previous admissions.	25%
Duggins and Shaw (2006)	N = 10 service users with a diagnosis of schizophrenia, discharged from inpatient services within the last year	Acute inpatient ward England	Qualitative	Semi-structured interviews, cognitive mapping analysis	Satisfaction was influenced by internal and external factors. External: fear of violence reduced satisfaction, communication with staff increased satisfaction. Dissatisfaction with ward reviews, queueing for meals, ward activities and mixed sex wards. Internal: decreased satisfaction when staff were perceived to have a different understanding of their illness. Low expectations of services tended to increase satisfaction	25%
Gebhardt et al. (2013)	N = 113 inpatients at the point of discharge	Department of Psychiatry, Psychotherapy and	Descriptive cross-sectional	Client Satisfaction Questionnaire (ZUF-8; Attkisson and Zwick, 1982)	Satisfaction was negatively correlated with clinical well-being (CGI part 1 r = -0.197, p = 0.036, part 2 r = -0.325, p < 0.001) and positively correlated with global functioning (r = 0.239, p = 0.011) at discharge. Medication side effects were associated with reduced satisfaction (t = -3.02, p = 0.003). There was no significant effect of diagnosis, age, gender, number of admissions, duration of treatment and level of	25%

		Psychosomatics. Germany			education.	
Gigantesco et al. (2002)	N = 169 current inpatients	Psychiatric ward, General hospital. Italy	Descriptive cross-sectional	Questionnaire developed based on literature review and an open questionnaire survey - tested and shown to have satisfactory psychometric properties	Highest satisfaction was with staff kindness (61.6% satisfied) and availability (59.9%), helpfulness of hospitalisation (58.1%). Lowest satisfaction was with information about treatment (22.8%) and involvement in the treatment programme (25.6%)	50%
Gjerden (1997)	N = 135 previously discharged inpatients	Open ward, central hospital. Norway	Descriptive cross-sectional	SPRI	Older patients more satisfied with some aspects of the ward (shared bedrooms, usefulness of treatment), but less informed about ability to access own records. Men were more satisfied with staff. Patients who thought they had been prematurely discharged (n = 31) were less satisfied with the service. No effect of type of admission (i.e. voluntary or compulsory).	50%
Greenwood et al. (1999)	N = 433 current inpatients	Six acute psychiatric wards. England	Mixed methods	Single general satisfaction questionnaire - likert scale. CSQ-8. Semi-structured interview - content analysis	Overall mean CSQ score (22.5) showed moderate satisfaction. 73.4% rated themselves as fairly or very satisfied. 15.5% expressed dissatisfaction. Females ($\chi^2 = 7.69$, $p = 0.006$), younger service users ($t = 2.15$, $p = 0.033$), and those detained under the Mental Health Act ($\chi^2 = 7.56$, $p = 0.006$) were more likely to be dissatisfied. No effect of ethnicity. 66% of participants reported at least one adverse experience. Those who reported an adverse experience were more dissatisfied ($p < 0.001$) and were more likely to be detained ($p < 0.001$)	50%
Howard et al. (2003)	N = 215 current inpatients	Two hospital sites. USA	Descriptive cross-sectional	Kentucky Consumer Satisfaction Instrument (Howard et al., 2003). MHSIP-21 consumer survey (Jerrell, 2006) CSQ-8	>70% indicated satisfaction with services received. No effect of age, gender, education, Axis 1 diagnosis and length of stay. Number of previous admissions was negatively correlated with satisfaction (CSQ-8, $r = -0.15$, $p = 0.04$). Higher satisfaction among people who were admitted voluntarily ($t = 2.9$, $p = 0.04$).	50%
Kelstrup et al. (1993)	N = 137 former inpatients	Two psychiatric wards at a General Hospital. Denmark	Descriptive cross-sectional	Questionnaire developed based on previous research and other questionnaires	No significant effect of age, gender or occupation. Significantly higher satisfaction was reported in patients with a diagnosis of affective illness and reactive psychosis compared to other diagnostic groups ($\chi^2 = 13.8$, $p < 0.002$)	25%
Kohler et al. (2015)	N = 292 (N = 75 inpatients with schizophrenia N = 217 inpatients with unipolar depression), at point of either admission or discharge	Psychiatric unit. Germany	Naturalistic trial	Zurich Satisfaction Questionnaire (ZUF-8)	Mean satisfaction score = 26.8 (ZUF-8). No difference between the two diagnostic groups in terms of overall satisfaction. Service users with depression, and a comorbid personality disorder reported lower satisfaction than those without a personality disorder ($t = 2.31$, $p = 0.03$). In depressed patients, severity of symptoms negatively correlated with satisfaction. No correlation between satisfaction and psychotherapy. No effect of age, gender, marital status, educational status, professional training or current occupation. No relationship with length of treatment. The number of medications correlated negatively with satisfaction (Depression: $r = -0.28$, $p = 0.02$, schizophrenia: $r = -0.24$, $p = 0.03$).	75%
Kuosmanen et al. (2006)	N = 313 discharged inpatients	Three acute inpatient units Finland	Descriptive cross-sectional	SPRI	Highest satisfaction was with staff-patient relationships. Good satisfaction with help from staff and the caring nature of staff. Low satisfaction with restrictions on movement, information regarding the right to appeal, opportunities for meaningful activities and shared rooms. With regard to staff-patient relationships, service users age 45–65 were more satisfied than those age 18–24 (means 4.22 vs 3.8, $p < 0.001$), men were more	75%

					satisfied than women (mean 4.08 vs 3.91, $p = 0.033$), and those whose current hospital stay was under two weeks were more satisfied than those whose hospital stay was 1–3months (means 4.10 vs 3.76, $p = 0.012$).	
Lovell (1995)	N = 25 current inpatients completed questionnaires. N = 6 discharged inpatients took part in qualitative interviews	Acute admission wards England	Mixed Methods	Developed a questionnaire based on previous research. Semi-structured interview	Admission - general satisfaction was high, but some dissatisfaction expressed with aspects (e.g. the welcome given). Qualitative interviews suggest a higher level of dissatisfaction. Treatment - Generally high satisfaction, but dissatisfaction expressed with some specific aspects (e.g. information regarding treatment). Ward environment - general satisfaction was good. Safety - lowest levels of satisfaction overall. Approximately 72% reported being frightened by other users	0
Middelboe et al. (2001)	N = 101 current inpatients	Acute admission ward Denmark	Descriptive cross-sectional	Ward Atmosphere Scale. (Moos and Houts, 1968) Satisfaction Scale adapted from Good Milieu Index	Patient satisfaction was moderate to high and did not differ by type of unit. Aspects of ward atmosphere (order and support) predicted satisfaction. Coercion was associated with significantly lower total scores on the satisfaction scale ($t = 2.1$, $p < 0.01$).	25%
Muller et al. (2002)	N = 135 inpatients at either point of admission (N = 60) or discharge (n = 75) on either open (n = 153) or closed (n = 125) wards	Open/closed psychiatric wards Germany	Descriptive cross-sectional	SATQ-98	Average level of satisfaction was high to intermediate. 15.3% of patients were dissatisfied or very dissatisfied with medication. General satisfaction was higher at discharge, and on the open ward ($p < 0.05$). Satisfaction was significantly different in those that had and hadn't experienced coercion ($t = 2.1$, $p = 0.01$)	75%
Olusina et al. (2002)	N = 118 inpatients on day of discharge	Two psychiatric wards, general hospital. Nigeria	Descriptive cross-sectional	Patient Care Assessment Questionnaire – developed based on previous research.	Dissatisfaction was related to curtailment of freedom. Highest satisfaction ratings were related to the staff-patient relationship. Age was associated with the perception of access to staff ($f = 3.3$, $p < 0.01$), with service users aged above 25 reporting higher satisfaction. Females were more likely to be satisfied with ward environment than men ($t = 2.97$, $p < 0.005$).	75%
Prince (2006)	N = 315 former inpatients with a diagnosis of Schizophrenia within 72 h of discharge	Inpatient psychiatric wards, four general hospitals. USA	Descriptive cross-sectional	Structured assessment, ratings of satisfaction made on a 5-point scale	Black people were more likely to report higher satisfaction ($OR = 0.56$, $p < 0.02$). Highest satisfaction was associated with staff effort. No effect of level of functioning	25%
Ricketts (1996)	N = 55 former inpatients within 2 days of discharge	Psychiatric admission ward. England	Mixed methods	Client Satisfaction Questionnaire (CSQ)	Mean CSQ score = 22.8. Significant correlation between general satisfaction and satisfaction with nursing communication. Lowest satisfaction was with the services ability to meet needs	25%
Rose et al. (2015)	N = 37 service users discharged from inpatient services within the last 2 years	Psychiatric wards. England	Qualitative - focus groups	Topic guide, thematic analysis	The ward was felt to be untherapeutic and the staff unavailable. Lack of freedom to leave the ward led to frustration, and coercion was experienced as a result.	50%
Ruggeri et al. (2003)	N = 404 current inpatients with a diagnosis of schizophrenia	Psychiatric wards. The Netherlands, Denmark, UK, Spain, Italy	Descriptive cross-sectional	Verona Service Satisfaction Scale (VSS-EU; Knudsen et al., 2000)	Satisfaction differed across the research sites. Living in London/Santander, being retired/unemployed, having a high number of hospital admissions, high levels of psychopathology, unmet needs and poor quality of life were all associated with low total service satisfaction.	25%

Shiva et al. (2009)	N = 188 current inpatients	Psychiatric hospital. USA	Descriptive cross-sectional	Inpatient Satisfaction Questionnaire (Shiva et al., 2009)	Patients with a diagnosis of a psychotic disorder were more satisfied than those without	75%
Smith et al. (2014)	N = 129 inpatients in the week prior to discharge	Three mental health wards, and one private hospital ward Ireland	Descriptive cross-sectional	CSQ-8. McArthur Admission Experience Interview (Monahan et al., 1995)	Mean CSQ-8 score = 24.5 ('good'). No effect of age, gender or number or length of admissions on the level of reported satisfaction. Satisfaction significantly higher in those admitted voluntarily, than those involuntarily admitted (t = -3.9, p < 0.001). Insight positively correlated with satisfaction (re = 0.24, p = 0.01), as did functioning (rs = 0.25, p = 0.01). No effect of type of disorder, or severity of psychotic symptoms. Patients with comorbid drug misuse reported lower satisfaction than those without (t = -2.86, p = 0.01). Strength of the therapeutic relationship (psychiatrist) was positively correlated with satisfaction (rs = 0.63, p < 0.001). 16% of service users reported some form of physical coercion, and reported significantly lower satisfaction than those who did not (t = -2.94, p = 0.01)	50%
Sorgaard (2007)	N = 189 current inpatients	Three closed acute wards Norway	Descriptive cross-sectional	SPRI	Committed patients were more dissatisfied with treatment ($\chi^2 = 7.62$, p = 0.022)	75%
Soergaard et al. (2008)	N = 117 first-time inpatients at discharge	Psychiatric ward Norway	Prospective cross-sectional	SPRI	Female patients tended to report more neutral aspects of satisfaction than men (p = 0.047). Age was also associated with positive (p < 0.01) satisfaction scores.	25%
Stewart et al. (2015)	n = 119 current inpatients	13 acute and 3 PICU wards across 3 hospital sites England	Qualitative - semi structured interviews	Thematic analysis	Staff duties - appreciation of staff roles and duties. Increased sense of trust and safety associated with perceptions of nurses as capable. Staff disposition - quality of care related to nurses' attitudes towards patients and their work. Value of being treated as an individual. Control - necessary to maintain order, could be overwhelming. Therapeutic ward environment - boredom, too much paperwork for staff. Changes to staff could be disruptive. Communication and engagement - felt one way, could not initiate. Consistency - rule keeping inconsistently applied	50%
Sweeney et al. (2014)	N = 247 current inpatients - quantitative arm, N = 14 current inpatients - qualitative arm.	16 psychiatric inpatient wards England	Mixed methods	Client Satisfaction Questionnaire (CSQ). Thematic analysis	Mean CSQ-8 score = 21.0. Deprivation of freedom and lack of autonomy resulted in negative dynamics between patients and staff. Lack of staff visibility appeared to have an effect on SUs, ward atmosphere and therapeutic alliance. No effect of recovery. Therapeutic alliance and peer support were related to satisfaction levels	75%
Wallace et al. (1999)	N = 23 former inpatients, discharged in the year before the study	Inpatient unit, Department of Psychiatry Canada	Qualitative - focus groups	Thematic analysis	Continuity was seen as important. There was uncertainty regarding the need for medications. Inactivity and a negative environment affected the therapeutic effect of services. Need for individualised care. Need for staff to be accessible and give information.	50%
Zahid et al. (2010)	N = 130 recently discharged former inpatients with a diagnosis of schizophrenia	One unit of the Psychological Medicine Hospital Kuwait	Descriptive cross-sectional	VSS-EU	General satisfaction was good. At least 2/3 expressed overall satisfaction. Lowest endorsements of satisfaction were for information and types of intervention. Women reported higher satisfaction than men (t = 2.9, p < 0.02). Divorced rated satisfaction higher than married (F = 5.2, p < 0.007). Age correlated with satisfaction with 'types of intervention' (r = 0.22, p < 0.01). No effect of years of education. Those who rated themselves as having enough money to enjoy themselves scored significantly higher on satisfaction scale (p < 0.03)	75%
Zendjidjian et al. (2014)	N = 270 inpatients on day of discharge	Psychiatric departments of two University teaching hospitals France	Descriptive cross-sectional	Ssatispsy-22 (Zendjidjian et al., 2014)	Satisfaction was positively associated with marital status (satisfaction was higher in people who were in a couple, p < 0.001), voluntary admission (p = 0.022), absence of seclusion (p = 0.001), more previous admissions (p = 0.05), better therapeutic alliance (p = 0.001) and better functioning (p = 0.03). .	50%

3.2 Quality assessment

The overall quality of the papers ranged from 0 to 75%. The quantitative non-randomised papers ([Kohler et al., 2015](#); [Muller et al., 2002](#); [Shiva et al., 2009](#); [Sorgaard, 2007](#)) showed a good level of quality, with all four scoring 75%, although some studies reported a low response rate. Of the quantitative descriptive papers reviewed, nine scored 25% ([Berghofer et al., 2001](#); [Brunero et al., 2009](#); [Cleary et al., 2009](#); [Gebhardt et al., 2013](#); [Kelstrup et al., 1993](#); [Middelboe et al., 2001](#); [Prince, 2006](#); [Ruggeri et al., 2003](#); [Soergaard et al., 2008](#)), seven scored 50% ([Alexius et al., 2000](#); [Barker et al., 1996](#); [Boydell et al., 2012](#); [Gigantesco et al., 2002](#); [Gjerden, 1997](#); [Howard et al., 2003](#); [Smith et al., 2014](#); [Zendjidian et al., 2014](#)) and three scored 75% ([Kuosmanen et al., 2006](#); [Olusina et al., 2002](#); [Zahid et al., 2010](#)). No quantitative descriptive papers gained marks for sample strategy due to a lack of consideration of sample size. They also did not score highly regarding representativeness of the sample, mainly due to a failure to report the number of people who had declined to participate, and the associated reasons. Of the qualitative studies, one scored 25% ([Duggins and Shaw, 2006](#)) and three scored 50% ([Rose et al., 2015](#); [Stewart et al., 2015](#); [Wallace et al., 1999](#)). The qualitative papers generally scored well for reporting the analysis used, but there was little or no acknowledgement of the impact of the researcher on the research process. The four mixed methods papers scored 0% ([Lovell, 1995](#)), 25% ([Sweeney et al., 2014](#)), 50% ([Greenwood et al., 1999](#)) and 75% ([Ricketts, 1996](#)) respectively.

3.3 General satisfaction

Fourteen studies reported some form of measurement or assessment of overall satisfaction. Five studies ([Greenwood et al., 1999](#); [Kohler et al., 2015](#); [Ricketts, 1996](#); [Smith et al., 2014](#); [Sweeney et al., 2014](#)) reported a mean score of the Client Satisfaction Questionnaire (CSQ-8/ZUF-8), with scores ranging from 21 to 26.8 (mean score 23.53). The CSQ-8 consists of a range of potential scores from 8 to 32, with higher scores indicating greater satisfaction. For the other studies, satisfaction was either quantified, with scores ranging from 60 to 68%, ([Barker et al., 1996](#); [Berghofer et al., 2001](#); [Brunero et al., 2009](#); [Cleary et al., 2009](#)), or categorised, with studies reporting satisfaction to be moderate to high ([Middelboe et al., 2001](#); [Muller et al., 2002](#)) or simply 'good' ([Zahid et al., 2010](#)).

3.4 Definition and measurement of satisfaction

Previous research (e.g. [Carr-Hill, 1992](#)) has noted difficulties in creating a unified concept of satisfaction. Few of the included studies operationalised what was meant by client satisfaction. Those that did provide some definition of satisfaction typically described the term as an outcome measure, or a measure of quality of care. [Brunero et al. \(2009\)](#) gave perhaps the clearest definition of satisfaction: "extent to which treatment gratifies the wants, wishes and desires of the client for services". [Ware et al. \(1978\)](#) set out a taxonomy of satisfaction, which stated any definition should include consideration of six separate dimensions ('art of care', 'technical quality of care', 'accessibility/convenience', 'availability', 'continuity of care' and 'efficacy/outcomes of care'). However, [Carr-Hill \(1992\)](#) has argued that there is no advantage to a unified concept of satisfaction, as satisfaction is so broad that it is likely to have a different meaning to each service user.

The most commonly used measure of satisfaction in the studies included in this review was the Client Satisfaction Questionnaire ([Larsen et al., 1979](#)). The eight-item version of this questionnaire measures general satisfaction, with items such as "Did you get the kind of service you wanted?" and "To what extent has our programme met your needs?". Despite the authors not defining their concept of satisfaction, the items included in the final measure suggest satisfaction is the extent to which a service user considers their needs and wishes to have been met. The Verona Service Satisfaction Scale (VSSS; [Knudsen et al., 2000](#)) measures satisfaction with seven dimensions that are primarily based on Ware's taxonomy, including overall satisfaction, professionals' skills and behaviour and efficacy. The SPRI ([Hansson and Hoglund, 1995](#)) focussed on areas of care that service users deemed to be the most important. Therefore, it seems that the most commonly used questionnaires are based on a range of factors, but have in common a focus on the quality of care on offer, and a rating of overall satisfaction.

3.5 Factors relating to satisfaction

Preliminary analysis showed that satisfaction with inpatient services was broadly examined in relation to two main categories: i) service user related factors, and ii) service, or ward-based factors. Results will be considered in relation to these categories.

3.6 Service user related factors

Studies examined several factors relating to service user characteristics and how they were associated with reported levels of satisfaction. The majority of studies (n = 17) included some consideration of the relationship between service user demographics and satisfaction. Consideration was also given to the impact of clinical factors, admission status and perceptions of hospitalisation. These factors will be considered in more depth below.

3.6.1 Service user demographics

Inconsistent results were reported regarding the relationship between satisfaction, and both age and gender. Fourteen studies examined satisfaction in relation to age, with six studies finding no relationship ([Alexius et al., 2000](#); [Boydell et al., 2012](#); [Howard et al., 2003](#); [Kelstrup et al., 1993](#); [Kohler et al., 2015](#); [Smith et al., 2014](#)), four reporting a positive association between age and satisfaction ([Barker et al., 1996](#); [Greenwood et al., 1999](#); [Soergaard et al., 2008](#)) and four reporting a positive

association between age and some aspects of satisfaction, such as staff-service user relationships (Gjerden, 1997; Kuosmanen et al., 2006; Olusina et al., 2002; Zahid et al., 2010). Fifteen studies examined the impact of gender, with nine studies reporting no effect (Alexius et al., 2000; Barker et al., 1996; Boydell et al., 2012; Cleary et al., 2009; Gebhardt et al., 2013; Howard et al., 2003; Kelstrup et al., 1993; Kohler et al., 2015; Smith et al., 2014), three reporting the impact of gender on overall satisfaction (Greenwood et al., 1999; Soergaard et al., 2008; Zahid et al., 2010), and three reporting that gender impacted on some aspects of satisfaction (Gjerden, 1997; Kuosmanen et al., 2006; Olusina et al., 2002). Those that found an effect of gender were inconsistent with their findings, with one study reporting higher satisfaction in men (Greenwood et al., 1999), one reporting higher satisfaction in women (Zahid et al., 2010), and another reporting that female participants were more likely to respond in a neutral manner (Soergaard et al., 2008). Those that found a relationship between gender and some aspects of satisfaction reported that men were more likely to report satisfaction with staff-service user relationships (Gjerden, 1997; Kuosmanen et al., 2006), and women were more likely to report satisfaction with the ward environment (Olusina et al., 2002). For both age and gender, there was no clear difference in overall quality assessment scores for those studies that found an effect versus those that reported no effect. However, for both age and gender, studies that reported a significant effect on satisfaction were more likely to have reported an adequate response rate, and had, on average, a higher sample size than those that reported no effect. Studies that reported an association between age and satisfaction were more likely to be based in the UK, with those that reported no effect largely based in continental Europe.

Results suggested that there was no effect of the level (Howard et al., 2003; Kohler et al., 2015) or length (Zahid et al., 2010) of education on reported levels of satisfaction. These studies were of acceptable quality, with one scoring 50% (Howard et al., 2003) and two scoring 75% on the quality assessment tool (Kohler et al., 2015; Zahid et al., 2010). Additionally, all studies used validated measures of satisfaction, and the studies covered a range of locations, suggesting these results are robust and valid.

Three studies examined the relationship between ethnicity and satisfaction (Boydell et al., 2012; Greenwood et al., 1999; Prince, 2006), with Prince (2006) finding that Black African participants were almost twice as likely to give a high satisfaction rating, compared to White participants. However, this study reported a significant difference between their sample and those who declined to participate, suggesting the results may not be generalizable to the wider inpatient population. Boydell et al. (2012) reported no difference between Black African and White participants, but lower levels of satisfaction in Black Caribbean participants, compared to White participants. Both of these studies (Boydell et al., 2012; Prince, 2006) had limited samples in terms of diagnosis (first episode psychosis, and schizophrenia, respectively), again suggesting the results may not be generalizable to other diagnostic groups. The third study (Greenwood et al., 1999) found no significant differences in reported satisfaction between the ethnic groups under study (White and Black). This study recruited a larger sample (n = 433) across several sites, and did not exclude participants based on diagnosis, suggesting that findings from this study may be more representative of the general inpatient population. However, the groups in this third study appear unmatched with regards to sample size, with a larger white sample (n = 294) than non-white (n = 90), suggesting caution should be used when drawing conclusions about the impact of ethnicity from this study.

Two studies (Zahid et al., 2010; Zendjidian et al., 2014) reported an effect of marital status; however, the nature of this was inconsistent. Zahid et al. (2010) reported higher satisfaction in divorced participants compared to those who were married, while Zendjidian et al. (2014) reported higher satisfaction in couples. The third study (Kohler et al., 2015) found no effect of marital status on satisfaction. This difference may be explained by differences in how each study defined marital status.

3.6.2 Admission status

Of the eight studies that examined the impact of admission status, six found that satisfaction was significantly higher in those admitted voluntarily, compared to those admitted involuntarily (Barker et al., 1996; Greenwood et al., 1999; Howard et al., 2003; Smith et al., 2014; Sorgaard, 2007; Zendjidian et al., 2014). The studies that found an effect utilised a range of measures of satisfaction, which had either been piloted, or independently validated and were carried out in a variety of settings, including acute and closed wards, and wards located within a general hospital. It would, therefore, appear that this effect is consistent across a range of settings. The remaining two studies found no effect of admission status (Boydell et al., 2012; Gjerden, 1997). Boydell et al. (2012) was limited in terms of the diagnostic group under examination (first episode psychosis only), and additionally, adapted their measure to use a binary response scale (satisfied, not satisfied), which may not have been sensitive enough to detect differences between the groups. Gjerden (1997) recruited only from an open ward, and therefore results may not be generalizable to the wider inpatient population.

3.6.3 Perceptions of need for hospitalisation and illness

Three studies reported how participant's perceptions of their care related to satisfaction ratings (Barker et al., 1996; Duggins and Shaw, 2006; Gjerden, 1997). Studies suggested that satisfaction was lower in participants who felt that they were not in need of hospital treatment (Barker et al., 1996), that they had been discharged too early (Gjerden, 1997), or had low initial expectations of the service (Duggins and Shaw, 2006). Those that felt they were prematurely discharged were more likely compared to others to report dissatisfaction with help received from physicians, and were less likely to feel that staff had time for them (Gjerden, 1997). Qualitative research (Duggins and Shaw, 2006) found that higher satisfaction was related to low initial expectations of the service. The remaining study found that satisfaction was significantly lower in those who felt that they did not need to be hospitalised (Barker et al., 1996). From these studies, it would appear that service users' expectation of inpatient care, and perception of their own needs may affect their satisfaction with the service offered. However, it should be noted that one of these studies (Duggins and Shaw, 2006) was of low quality, mainly due to a lack of reflection on how the findings related to the researchers' own views and experiences, and the research context. The remaining two studies had higher overall scores for quality, suggesting the results may be more acceptable.

3.6.4 Clinical factors

Of the eight studies that examined the relationship between satisfaction and diagnosis, five found no effect (Boydell et al., 2012; Gebhardt et al., 2013; Howard et al., 2003; Shiva et al., 2009; Smith et al., 2014). The three studies that reported an

effect of diagnosis on satisfaction ratings demonstrated inconsistent results ([Barker et al., 1996](#); [Kelstrup et al., 1993](#); [Kohler et al., 2015](#)). [Kohler et al. \(2015\)](#) reported those experiencing depression with a comorbid personality disorder were significantly less satisfied than those without a comorbid diagnosis; however, there was no significant difference between those with depression and those with psychosis. [Barker et al. \(1996\)](#) suggested that satisfaction was significantly lower in those with a diagnosis of a non-affective psychosis. [Kelstrup et al. \(1993\)](#) reported higher satisfaction in those who were experiencing an affective disorder, or a reactive psychosis. It is difficult to draw firm conclusions based on these results, as all studies differed in diagnoses examined. The studies that found no effect all used a validated measure of satisfaction, whereas two of the studies that reported an effect ([Barker et al., 1996](#); [Kelstrup et al., 1993](#)) used a measure that had been developed for the purpose of the study.

There were inconsistent results in the five studies that examined the relationship between length of hospitalisation and satisfaction ([Berghofer et al., 2001](#); [Howard et al., 2003](#); [Kohler et al., 2015](#); [Kuosmanen et al., 2006](#); [Smith et al., 2014](#)). Three studies ([Howard et al., 2003](#); [Kohler et al., 2015](#); [Smith et al., 2014](#)) reported no effect of length of hospitalisation. However, the fourth ([Berghofer et al., 2001](#)) found that longer stays were associated with higher satisfaction. [Kuosmanen et al. \(2006\)](#) investigated satisfaction at various time points during admission, and found that general satisfaction was higher during the first two weeks of admission, but increased with regard to the ward environment after three months of inpatient treatment. This suggests that the relationship between satisfaction and length of stay may not be linear, and the nature of this relationship may vary over time, which may explain why those studies which treated length of hospitalisation as a continuous variable found no effect.

Five studies examined the effect of previous admissions of satisfaction ([Cleary et al., 2009](#); [Howard et al., 2003](#); [Ruggeri et al., 2003](#); [Smith et al., 2014](#); [Zendjidian et al., 2014](#)). Two ([Howard et al., 2003](#); [Ruggeri et al., 2003](#)) found that satisfaction was lower when participants had previous admissions, while another ([Zendjidian et al., 2014](#)) found a positive association between previous admissions and service satisfaction. The two remaining studies ([Cleary et al., 2009](#); [Smith et al., 2014](#)) reported no effect of previous admissions, although their sample size was lower than other studies, and quality assessment showed a significant level of missing data for the main satisfaction measure used by [Smith et al. \(2014\)](#).

3.7 Service related factors

Twenty-one studies considered the impact of service related factors on reported levels of satisfaction. These factors broadly related to the nature of the ward environment, and the restrictions this placed on freedoms and activities, the opportunity to seek understanding and support from staff and other service users. Full analysis of these factors and their relationship to satisfaction is provided below.

3.7.1 Open/closed ward

Five studies considered the impact of a locked environment on service user satisfaction ([Kuosmanen et al., 2006](#); [Middelboe et al., 2001](#); [Muller et al., 2002](#); [Olusina et al., 2002](#); [Rose et al., 2015](#)). Three ([Kuosmanen et al., 2006](#); [Muller et al., 2002](#); [Rose et al., 2015](#)), reported that satisfaction was higher on open wards, when less restrictions were placed on free movement. [Olusina et al. \(2002\)](#) reported that dissatisfaction was associated with the curtailment of freedom, which would likely be experienced on a closed ward environment. [Middelboe et al. \(2001\)](#) found no effect of unit type on overall reported satisfaction; however, quality assessment showed some issues with the reporting of this study, specifically, a low response rate, and significant differences between those who participated and those who did not. The other studies reported here were of higher quality, suggesting their results may be of higher validity.

3.7.2 Ward environment

Ward cleanliness was consistently rated as one of the more satisfactory aspects of service users' inpatient experience ([Brunero et al., 2009](#); [Cleary et al., 2009](#); [Howard et al., 2003](#); [Lovell, 1995](#)). Qualitative interviews ([Lovell, 1995](#)) showed that safety of personal items was a source of dissatisfaction, with all of those interviewed reporting missing items. It was also found that those who were satisfied with their living conditions had higher overall satisfaction scores ([Zahid et al., 2010](#)). The results relating to ward environment did show consistency across a range of settings, suggesting they may be generalizable to the general inpatient population.

3.7.3 Information giving

Seven studies reported service users' views of the information given to them regarding their stay, with consistent results. Participants reported dissatisfaction with information given during their stay ([Cleary et al., 2009](#); [Gigantesco et al., 2002](#); [Wallace et al., 1999](#); [Zahid et al., 2010](#)). Specifically, service users reported feeling they were not given enough information on the Mental Health Act and their right to appeal ([Brunero et al., 2009](#); [Kuosmanen et al., 2006](#)). One qualitative study ([Wallace et al., 1999](#)) found that service users experienced a lack of information as being disempowering, leading to a sense of incompetence. Research also reported a relationship between general satisfaction, and reported satisfaction with nursing communication ([Ricketts, 1996](#)). These results suggest that service users who are given information regarding their care and their admission are more likely to be satisfied with the service. The quality of these studies was varied, with MMAT scores ranging from 25% to 75%. However, the consistency of these results suggests they may be generalizable to the wider inpatient population.

3.7.4 Coercion and safety

Seven studies investigated the links between satisfaction and experiences of coercion. Two found that higher levels of experienced coercion were related to lower overall satisfaction ([Middelboe et al., 2001](#); [Smith et al., 2014](#)). Qualitative interviews in one study ([Rose et al., 2015](#)) describe a pattern of coercion occurring as a result of service users frustrations with the limitations of the ward environment. Further qualitative research has also found that service users perceive satisfaction as being influenced by the fear of violence ([Duggins and Shaw, 2006](#)). Satisfaction was found to be associated with an absence of the use of seclusion, and witnessing fewer adverse experiences on the ward ([Greenwood et al., 1999](#); [Zendjidian et al., 2014](#)).

Seventy-two percent of service users reported experiencing fear relating to other service users, and rated safety as being an area of low satisfaction (Lovell, 1995). These studies had variable quality scores (ranging from 0 to 50%); however, the consistency of the results suggests this finding is reliable.

3.7.5 Staff

Staff relationships and care giving were examined in several studies (n = 13) and results suggest satisfaction was highest in this area (Berghofer et al., 2001; Gigantesco et al., 2002). Studies reported a positive association between the quality of the therapeutic relationship and satisfaction with services (Howard et al., 2003; Kuosmanen et al., 2006; Olusina et al., 2002; Sweeney et al., 2014; Zendjidian et al., 2014). In particular, staff supportiveness (Middelboe et al., 2001), accessibility (Rose et al., 2015; Wallace et al., 1999), and capability (Stewart et al., 2015) were related to satisfaction. Satisfaction with different professions varied, with nursing care being rated as most satisfactory, and medical care as least satisfactory (Brunero et al., 2009; Cleary et al., 2009). It was also found that the presence of a community based care coordinator was associated with higher satisfaction (Brunero et al., 2009). Of these studies, three were low quality (Berghofer et al., 2001; Brunero et al., 2009; Cleary et al., 2009), scoring 25% on the MMAT. However, the remainder scored either 50% (n = 6) or 75% (n = 4), suggesting they were of higher quality. Additionally, the results were consistent across all studies, which represented a range of settings and used a variety of measures of satisfaction, suggesting these results are valid and reliable.

4 Discussion

This review considered factors associated with service users' satisfaction with inpatient psychiatric services. The results suggested that general satisfaction with these services is good. This is consistent with the results of satisfaction surveys in other areas of healthcare (Nguyen et al., 1983). The results can be broadly classified as relating to either service user, or service characteristics. Service users' perceptions of illness and hospitalisation were found to influence their ratings of satisfaction. This has also been shown to be the case in physical health care settings (e.g. Thi et al., 2002), suggesting that this is not specific to inpatient psychiatric care. Additionally, it appears that length of hospitalisation may be related to satisfaction, with ratings initially decreasing, then improving in some areas after a period of months. Coercion was shown to be negatively associated with satisfaction, while voluntary admission was positively associated with satisfaction. Satisfaction was reported to be higher on open than closed wards, possibly due to the restrictions placed on freedom on closed wards.

Quality assessment showed some consistent areas of weakness among the studies reviewed. Specifically, none of the quantitative descriptive studies used a power calculation or other means of justifying their sample size, rendering it difficult to conclude whether those studies that reported no effect did so due to inadequate power, or because there was no effect to be found. Concerns have previously been raised regarding the methodological rigour of studies of satisfaction, particularly with regards to the lack of a unified concept of satisfaction (Larsen et al., 1979). This was the case in the studies reviewed, with few operationalising their concept of satisfaction. Similar to the findings of Corrigan (1990) several of the quantitative studies used bespoke measures of satisfaction. This makes comparisons between studies difficult, and means that each study may be focussing on different aspects of satisfaction. Additionally, some studies altered the measures that they had used rendering them invalid. Indeed, the short follow-up period of many studies reviewed, the methodological weakness of included studies, and the fact that measures are inconsistently used suggest that little has been done to address methodological issues in the period since Corrigan's original review.

In line with previous research, the studies reviewed here reported generally good levels of overall satisfaction, on a range of measures, in a variety of settings (Larsen et al., 1979; Nguyen et al., 1983). This has previously been a matter of debate, with some suggesting that this does not accurately reflect the views of service users, and hypothesising the role of demand characteristics in the reported high levels of satisfaction (Larsen et al., 1979). These high levels of satisfaction may also have contributed to the inconsistency in results, as measures would need to have the sensitivity to detect smaller differences. Inconsistent results were reported with regards to the links between sociodemographic characteristics and satisfaction with services. However, quality assessment suggests this may in part be due to a lack of adequate power in the studies that found an effect, particularly in the case of age and gender. Previous research in the area of physical health has found significant associations between age and satisfaction, suggesting this may be an important area for further, high quality research (Thi et al., 2002). It appears that admission status has an impact on the level of satisfaction reported by service users. Those who were admitted involuntarily reported lower levels of satisfaction than those who were admitted voluntarily. Additionally, satisfaction appeared to be negatively associated with residing on a closed ward and experiencing coercion. Several studies proposed a link between these factors (Greenwood et al., 1999; Smith et al., 2014; Sorgaard, 2007). Experiences of coercion are more common in those who are admitted involuntarily (Fiorillo et al., 2012). The use of coercion is also likely to affect staff-service user relationships, which is also an important factor in determining satisfaction with inpatient services. In Corrigan's review (Corrigan, 1990), service users viewed the use of coercive techniques to be humiliating, and led to distrust between staff and service users. Previous studies have shown the important role that attachment relationships between staff and service users can play in treatment and recovery (Berry and Drake, 2010). The use of coercion presents a threat to this attachment, and consequently may reduce satisfaction with the service (Corrigan, 1990). This review suggests that coercion may act both as a cause, and a corollary, of dissatisfaction. It could also be hypothesised that coercion may act as the mediator by which other factors, such as involuntary admission, affect levels of satisfaction. However, it should be noted that only half of the studies included in this review assessed one or more of these factors (admission status, coercion and open/closed ward). Therefore, the results may not be generalizable to wider populations. However, the majority of studies suggested that these factors were related to satisfaction, and those that did not appeared to be of lower quality.

There was some evidence to suggest that expectations of services are related to satisfaction. This is consistent with previous findings, where it was hypothesised that this relationship may be related to previous experience of

services (Corrigan, 1990). It would, therefore, be expected that previous admissions to inpatient services would be related to satisfaction. However, the results in this area were unclear, as some of the studies were of low quality.

Overall this review develops understanding of the processes and mechanisms through which inpatient intervention influences the important outcome of patient satisfaction. In terms of a broad theoretical model, we would argue that systemic and environmental factors influence individual patients' perceptions of the quality of their care, which are in turn influenced and moderated by the patients' past experiences of care and social characteristics such as age and gender. More specifically, systemic and environmental factors that effect patients' sense of control and empowerment, such as being involuntarily detained, being on closed wards and high levels of coercive practice are likely to lead patients to perceive that hospital care is not helpful or even necessary. It could be hypothesised that this mismatch between the services that are provided and what patients want or believe that they need, evokes further resistance in patients and therefore an increase in the likelihood of more coercive, restrictive and disempowering treatment. Conversely, environments that provide a sense of safety and security in times of mental distress, facilitated by supportive, available, communicative staff, lead patients to appreciate the benefits of inpatient care and therefore feel more satisfied. In such, situations patients are likely to feel empowered to be active partners in their care, thus facilitating good staff and patient communication and relationships. These dynamics are further likely to be influenced by length of stay, with patients who feel that their care ends too abruptly feelings less satisfaction and those whose stay is extended perhaps due to reasons beyond their control, feeling that care is unnecessarily long and restrictive.

4.1 Strengths and limitations of the review

Strengths of this review include the comprehensive list of search terms used across a range of databases, which increases the likelihood of all relevant literature being included in the review. Furthermore, this review covers an extended time period (1990–2016), allowing a comprehensive review of the literature and consideration of a range of settings and service contexts. Unlike previous reviews in this area (e.g. Corrigan, 1990), the current study reviewed the literature in a systematic manner and included a measure of quality assessment. There are some limitations that should also be considered. Although the results show a broad international spread of papers, the limitation of the search to include English language may have led to some relevant literature being excluded. Additionally, grey literature was not included in the review, meaning some unpublished research may have been missed. The scope and aims of the review did not allow for consideration of differences in ward settings across different countries. The results relating to some factors suggest the impact of some geographical factors; however, further research is needed to understand the mechanism by which this occurs.

4.2 Areas for further research

The quality assessment revealed methodological issues with the quantitative studies reviewed in the current review. Future research into the role of sociodemographic characteristics in determining satisfaction would benefit from ensuring adequate power. This may enable some clarity to be gained regarding the inconsistency in results reported here, and in other research. Further research examining the differing needs of people from different sociodemographic groups would allow a greater understanding of how services could better meet individual needs. Future research may also benefit from further examining the role of coercion in reported satisfaction. This would enable a greater understanding of the nature of the link between coercion and admission status, and how this impacts on satisfaction. An adequately powered study, using a validated measure of satisfaction and service user rated measures of experienced coercion, with both voluntarily and involuntarily admitted services users, would allow this potential link to be explored. Finally, previous research has proposed a link between expectations of services, previous experiences of services, and satisfaction. It may be that age influences these expectations of services, as older service users may have previously experienced institutionalised care, which would affect how they approach future admissions. Further exploration of this issue using rigorous methodology would facilitate a more nuanced understanding of how service users' expectations and prior experiences of services can impact on their reported levels of satisfaction. Further research should consider how satisfaction could be clearly operationalised. Consideration should be given to the use of standardised measures of satisfaction.

4.3 Clinical implications

The current study suggests that perceptions of hospitalisation can affect ratings of satisfaction. It may, therefore, be beneficial for community teams to share more information with service users about psychiatric hospitals, in order to manage expectations prior to admission. Findings show that ward staff are important in increasing satisfaction with inpatient services. Specifically, service users reported being satisfied with nursing staff. However, satisfaction was lower with medical staff, and services may benefit from further consideration of how to improve these relationships. Coercion appears to be an important factor in determining satisfaction with services. Both the admission itself, and adverse events on the ward may be viewed as coercive. It is likely that such events will impact on the staff-service user relationship. An awareness of the impact of coercion on service users is important when considering the need for post-incident support. By providing appropriate support to service users, staff may be able to repair ruptures in the therapeutic relationship.

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