

Abstract

Social climate is a term used to describe the environment of a particular setting which may influence the moods and behaviors of the people inhabiting that setting. This review explores perceptions of social climate in secure forensic services and the associations with aggression. Article searches were conducted using electronic databases, hand-searching reference lists and contacting experts. Inclusion/exclusion criteria were applied to each study and quality screens conducted on the remaining articles to establish those for inclusion. A total of 7 studies were identified. Factors which were found to have an association with aggression included: patients' perceptions of safety, the level of cohesion between patients, the atmosphere of the environment, and an open group climate. It is argued that services which create positive social climates for both staff and patients are more likely to observe lower levels of aggression.

Key words: perception, social climate, aggression, forensic, mental health

Introduction

Violence within correctional and forensic healthcare settings is a significant problem in many countries. For example, there were 18,874 incidents of assault perpetrated in prison custody within England and Wales between September 2014 and September 2015 (Ministry of Justice, 2016), which was an increase of 19% compared to the previous year. Likewise, the Federal Bureau of Prisons' website indicates that there were approximately 2,872 lower level assaults perpetrated by inmates on other inmates and 300 serious incidents of inmate-on-inmate assault in their prisons in the United States between September 2014 and September 2015. These statistics are worrying given the range of negative consequences for victims, perpetrators and the wider organisation within which violence occurs. For the victim, the negative consequences can include physical injury and even death, as well as psychological effects (such as anxiety, sleep disturbance, fear, anger and resentment). For perpetrators, violent incidents can significantly disrupt their rehabilitation, potentially leading to seclusion, transfer to a new institution and even conviction/prosecution. They might also have psychological effects, such as guilt and shame. For the wider organisation, violence against staff and residents ultimately reduces the efficiency and effectiveness of rehabilitative efforts (Bowers et al., 2011). It is, therefore, important that research explore what factors impact on the perpetration of aggression in secure settings.

One such factor that has been suggested to impact on aggression within secure settings is the so-called 'social climate' of a given institution. Social climate is thought to be a multifactorial construct, consisting of a range of factors, including (but not limited to) how safe from the threat of aggression and violence residents and staff feel, how supportive of therapeutic gain and the physical/psychological needs of residents the unit is perceived to be, and the extent to which the unit is seen to provide the opportunity for learning new skills and prosocial behavior (Tonkin, 2015). Thus, more broadly, social climate has been defined as

the material, social, and emotional conditions of a given unit and the interaction between such factors (Schalast, Redies, Collins, Stacey, & Howells, 2008).

Theoretically, one might expect there to be a relationship between social climate and aggression, given that there are often many restrictions placed on individuals in secure forensic services (e.g., un/escorted leave, locked doors etc.). There are also a number of studies that demonstrate an empirical link between aggression and constructs typically measured by social climate questionnaires. Flutterm (2010), for example, found that the fostering of positive staff-patient relationships can influence the emotional stability of psychiatric patients. Likewise, Lanza et al.'s (1994) study highlighted that higher levels of staff involvement and patient autonomy were observed on the unit with the lowest frequencies of assaults. This indicates that greater levels of staff support, coupled with the encouragement of individuals to have more choice in their treatment help to minimise aggressive incidents. In secure services where clinical teams direct much of the day-to-day routines of individuals, giving them the opportunity to have more choice in their care may help to restore some feelings of control over their own lives. In further support of the hypothesized link between aggression and social climate, Meehan, McIntosh, and Bergen (2006) discovered that the environment, patient boredom, and poor quality staff-patient interactions can lead to aggressive behavior. If there are a lack of activities delivered by services with which to keep patients' interest on a daily basis then it is potentially more likely that this would generate frustration. If, when attempting to vent these feelings, patients are met with a (perceived) lack of empathy from staff then this may exacerbate their frustration. Relatedly, Papadopoulos, Bowers, Quirk, and Khanom (2012) found an association between negative staff attitudes and aggressive behaviors in patients. Indeed, underlying negative staff attitudes may (albeit unconsciously) affect the way in which staff interact with patients (e.g., responding bluntly) which could trigger incidents of aggression. Papadopoulos and

colleagues recommend that reducing staff stress/burnout and increasing staff morale may decrease incidents of conflict; this finding is corroborated by Agerfold and Andersen (2006). Conversely, however, Bowers, Allan, Simpson, Jones, and Whittington (2009b) found no associations between staff morale and aggressive behaviors.

Social climate is not a newly created construct; indeed, there are several assessments which have been developed over many years that have aimed to measure social climate. One of the most used measures is the Ward Atmosphere Scale (WAS; Moos & Houts, 1968) which contains 100 items under 10 subscales of: Involvement, meaning the level of patient involvement in the running of the ward; Support, relating to the extent to which patients feel supported by staff; and Spontaneity, meaning the degree of patients' spontaneous behavior; Autonomy, meaning how much independence and responsibility patients are given; Practical Orientation, relating to how much patients are encouraged to develop practical skills which will help them re-integrate into the community; Personal Problem Orientation, referring to the extent to which patients are encouraged to understand their difficulties and emotions; and Anger/Aggression, meaning the extent of patients' angry and aggressive behaviors; and Order/Organisation, relating to how much emphasis is placed on the organisation; Programme Clarity, meaning the clarity of rules and regulations; and Staff Control, referring to the extent to which staff have to implement procedures in order to maintain control of the unit. Two more assessment, namely the Correctional Institutions Environment Scale (CIES; Moos & Schaefer, 1987) and Community-Oriented Programs Environment Scale (COPES; Moos, 1972) are both derived from the WAS. Given the wider socio-cultural changes, as well as those within secure services, which have occurred since the measure's inception, research indicates that the terminology contained within some of the items is now regarded as outdated (Røssberg & Friis, 2003). For example, items such as 'It is a good idea to let the doctor know

that he is the boss' and 'Patients can wear what they want' may have been culturally relevant when the measure was developed, but are not as applicable now. The Essen Climate Evaluation Schema (EssenCES; Schalast et al., 2008; Schalast & Tonkin, 2016) is a more recently developed measure which contains 17 items, comprising questions under each of the three subscales of: Therapeutic Hold, Patients' Cohesion and Mutual Support, and Experienced Safety. The EssenCES has been found to have good internal consistency and convergent validity with other social climate measures (e.g., Howells, et al., 2009; Schalast et al., 2008; Tonkin et al., 2012). Many secure services routinely use these measures to gather data on patient perceptions of social climate; however, it is unclear as to whether or not they use the measures to examine how such perceptions may impact upon patient behaviors and then further ascertain what changes could be made to the environment that might help to reduce challenging behaviors.

The main aim of this review is to examine the relationship between social climate and the occurrence of aggressive incidents in secure forensic service settings (i.e. prisons and forensic psychiatric hospitals). For the purposes of this review, the term 'aggressive' refers to verbal and physical aggression towards staff and/or peers, together with destruction to property and/or the environment¹.

When exploring management strategies for individuals presenting with aggression, clinical teams often focus on delivering interventions aimed at managing the individual (e.g., emotion regulation, anger management) and/or developing guidelines for staff in the form of behavioral support plans. However, it may be that more attention needs to be directed towards the external environment, including staff, and how they contribute to individuals'

¹ This definition of aggression has been used due to its use in other studies and publications (e.g., American Psychiatric Association, 1974; Bowers et al., 2011) and also because it is consistent with measures such as the Overt Aggression Scale (Yudofsky, Silver, Jackson, Endicott, & Williams, 1986) that are commonly used in research to operationalize aggression.

aggression. As such, this review of the literature aims to highlight any common themes with regards to aspects of the social climate in forensic settings which may contribute to aggressive behaviors. The results of the review may encourage organizations to evaluate the quality of the environment in which such individuals reside and might also include an examination of the performance of staff teams as there may be outstanding training/supervision needs that could be addressed. This is an issue that has never before been addressed despite the fact that numerous studies of social climate suggest that there is a relationship between climate and aggression, and the fact that validation studies often look for a relationship with aggression when seeking to validate social climate questionnaires. The current review, therefore, will synthesize and clarify the literature regarding this issue.

In addition, the social climate literature spans a number of years and is diverse in numerous ways, for example, different ways of measuring social climate, different countries sampled, and different populations studied (Tonkin, 2015). Such diversity and the fact that the literature is spread over time means that it is somewhat difficult for researchers and practitioners to get a coherent sense of what the literature is telling us. The current review will help to do this by synthesizing the literature on social climate in one place, which has never been done before. While previous reviews of social climate exist (e.g., Tonkin, 2015), they have tended to review a large range of issues, thus meaning that specific issues, such as the link between social climate and aggression, have not been explored in sufficient depth. The present study will attempt to overcome this limitation.

In terms of hypotheses, we would hypothesise there to be less aggression in settings where residents feel more emotionally, physically and therapeutically supported by staff and other residents, and where they feel safe and secure. Likewise, we would hypothesise there to be a negative correlation between aggression and settings where patients are supported to make decisions about their care, where they are encouraged to engage in activities designed to

improve their daily living skills, where they are assisted to understand more about their difficulties, and where the rules and routines of the environment are clear and consistent. We would expect to see a positive correlation between aggression and environments where more anger is observed and where staff are perceived as controlling.

Method

Literature searches were conducted using CINAHL, MEDLINE, PsychARTICLES, and PsychINFO (via Ovid) between the years 1990-2015 in order to identify potential studies. This date range was chosen with the aim of retrieving recent articles, but keeping the number of articles to a manageable amount. The searches were comprised of combinations of terms to describe: 1) perceptions (e.g., attitude, impression, opinion); 2) social climate (e.g., “institutional climate”, “unit milieu”, “ward atmosphere”); 3) aggression (e.g., “aggressive incident”, “physical violence”, “verbal hostility”); 4) forensic (e.g., offender, criminal, detainee); and 5) mental health (e.g., “medium secure unit”, “psychiatric hospital”, “secure ward”). A full electronic search for all of the electronic databases can be seen in Table 1.

[Insert Table 1 about here]

The screening and selection of articles

The first author applied eligibility criteria to all studies identified by the above searches. Because the current review was not examining interventions or their effectiveness it was not deemed appropriate to solely use a Population, Intervention, Comparison, Outcome (PICO)

framework for assessing the suitability of research articles. The Sample, Phenomenon of Interest, Design, Evaluation, Research type (SPIDER; Cooke, Smith, & Booth, 2012) was deemed more appropriate, therefore aspects of each framework which were considered relevant to the subject area were used to screen articles. Studies were deemed eligible if: (a) participants had forensic histories; (b) the service setting was secure forensic (including prisons); (c) the study's focus was on perceptions of social climate; (d) the article had been published (e.g. peer-reviewed journals, books); and (e) the study was in the English language. Only quantitative papers were eligible for inclusion, meaning that only those studies which utilized quantitative measures of aggression were included. Studies were excluded if: (a) their participants were recruited from within psychiatric institutions where they had no forensic history; (b) they utilized subjects from intellectually developmentally disabled (IDD) populations due to the lack of validated social climate measures with this client group; and (c) they were unpublished papers (e.g. dissertations, theses), due to the absence of a formal peer review. Experts in the field of social climate were contacted to see whether or not they could provide any relevant papers; the eligibility criteria were applied to the papers that were provided.

Searches of the reference lists of the papers meeting the eligibility criteria were conducted and relevant papers were also screened using the above criteria. The first author then applied quality screens to the identified papers using tools from the Critical Skills Appraisal Programme (CASP, 2013) website. CASP is part of 'Better Value Healthcare', a training organization which has developed workshops and tools for critical appraisal covering a wide range of research. Their website provides downloadable screening tools depending on the design of the study that individuals wish to quality screen (e.g., cohort, qualitative, case control). The first author also adapted one of CASP's quality screen tools using guidance from the literature (Von Elm et al., 2007) for those articles which utilized cross-sectional

designs. CASP tools have been used in numerous systematic reviews on a variety of topics including those relating to the medical instruments (Beattie & Taylor, 2011) and the safety of certain spices during pregnancy (Ding, Leach, & Bradley, 2013). Studies which were scored as 75% and above were deemed of appropriate quality to be included in the review. By only including studies which met this minimum threshold, the resulting review and subsequent recommendations for future research and practice implications would be based upon the findings of high quality studies (Centre for Reviews and Dissemination, 2008). An independent rater applied quality screens to 100% ($n=7$) of the papers. The minimum quality screen score of 75% was assessed by both raters as being achieved by all seven of the double-screened papers, giving an agreeability rating of 100%.

Results

Once all of the searches had been conducted (see Figure 1) a total of 4,420 hits were returned. All duplicate references were removed ($n=46$). All titles and abstracts of the remaining research articles were screened and 4,349 were removed where it was evident that they did not meet the inclusion/exclusion criteria. Complete copies of the remaining articles ($n=25$) were then obtained and the inclusion/exclusion criteria applied, whereby 24 papers were excluded. A hand search of the reference list of the remaining paper was then conducted with a total of 20 additional papers being identified. However, nine studies were not conducted in forensic settings, six did not examine the links between social climate and aggression, two studies collected data from IDD participants, and one study was qualitative. The inclusion/exclusion criteria were then applied to the articles obtained from experts in the field meaning that a further four papers were included. This left a total of 7 studies to be quality screened, all of which achieved the 75% rating required for inclusion in the current review.

[Insert Figure 1 about here]

Description of studies

The majority of studies recruited participants from multiple locations and some did not specify the level of security of the units. As such, studies obtained participants from one open unit, one minimum secure, three low secure, five medium, one intermediate, and one maximum secure unit. In addition, samples were also gathered from one 'forensic mental health unit and secure clinic', 17 'forensic psychiatric hospitals', and 11 'secure forensic services'. One study recruited participants from a prison population. The largest group of studies came from the United Kingdom ($n=3$), and there was one each from the United States of America, The Netherlands, Holland, , and Germany. The majority of the studies utilized cross-sectional designs ($n=5$), with one using a longitudinal design and the remaining study using a cohort design.

There were 4 studies whose participants were both staff and patients/inmates and three studies with patient/inmate-only participants. Only one study provided a range of demographic data (i.e. age, gender, ethnicity, mental health diagnosis) and three studies did not include any such information. Using the information which was available, the age range of patient/inmate participants was 17-61 years; for staff participants this was 18-62 years. The majority of forensic psychiatric patients had a diagnosis of personality disorder. Staff participants worked within a range of disciplines including nursing, psychology, support work, psychiatry, and occupational therapy. A range of sample sizes were utilized; the smallest being 59 participants and the largest being 879 participants.

The majority of studies ($n=5$) used the EssenCES as the measure of social climate. . One used the Prison Group Climate Inventory-Short Form which was derived on the original PGCI (van der Helm et al., 2011), and one study used the full PGCI assessment. Table 2 provides a list and summary of each study. In terms of how the studies measured aggression, four used the frequency of aggressive incidents, two used the Overt Aggression Scale (OAS; Yudofsky, Silver, Jackson, Endicott, & Williams, 1986), and one used the Buss Durkee Hostility Inventory (BDHI; Buss & Durkee, 1957). The term ‘aggression’ was not defined in the majority of the studies, and some used different definitions. This lack of clarity is something that will be discussed later in the paper.

[Insert Table 2 about here]

Narrative data synthesis and findings

As the included studies were comprised of a range of aims, research methodologies, and participants it was deemed appropriate to conduct a narrative data synthesis in order to extract key findings relating to each of the studies as opposed to carrying out a meta-analysis. This section will briefly outline the findings relating to perceptions of social climate and incidents of aggression.

Is there a relationship between ratings of social climate and aggression? Long et al. (2011a) found that the level of security (i.e. the number of restrictions within the environment) was positively linked to incidents of verbal abuse and aggression, where patients may often become frustrated with the restrictions placed upon them in higher

security settings. Ros, van der Helm, Wissink, Stams, and Schaftenaar's (2013) results indicate that the more open the institutional climate, the lower the frequency of aggressive incidents. They categorize aggression with their study as: (1) arson; (2) threat, insult, and/or discrimination; (3) physical aggression against persons; (4) sexual intimidation; (5) suicide, attempt to suicide, or auto-mutilation, and (6) destruction and/or damage of the building, interior or materials. Similarly to other studies, higher ratings of staff support and patients' perceptions of their potential for growth and learning were significantly linked to lower levels of aggressive behavior. Interestingly, Ros and colleagues found no association between a repressive ward climate and incidents of aggression. They propose that such an environment may reflect prior negative experiences to which the patient has become accustomed, which therefore has a limited impact upon their aggressive behaviors.

Van der Helm, Stams, van Genabeek, and van der Laan (2012) also gathered their data from within a prison, but from juvenile offenders; they investigated how inmates' personalities and the group climate contributed to aggression. Their study corroborated the findings of Ros et al.'s (2013) study in that they found an open climate to be negatively associated with aggression; they propose that such a climate increases the number of positive interactions for the inmates. In addition, they discovered no link between a repressive group climate and aggression. van der Helm and colleagues also suggest that the juveniles' personalities, and levels of aggression, might be influenced by the group climate.

Although social climate and aggression was not the focus of their study, Tonkin et al. (2012) found that higher levels of ward aggression were associated with lower scores on the Patient Cohesion and Mutual Support dimension of the EssenCES. This is not surprising given that other studies have indicated the importance of relationships and their role in mediating aggression. In addition, the study found that staff and patients felt less safe on wards where there were higher levels of aggression, and patients were seen to be less supportive of

each other on such units. These findings suggest a circular relationship between patient cohesion/support and aggression. Tonkin and colleagues also discovered the higher security settings to have a more negative impact on patient cohesion/supportiveness and that patients felt less safe in such services. This corroborates the findings of other studies in this review where security levels influenced the number of aggressive incidents (e.g., Long et al., 2011a). Schallast et al. (2008) also found that lower ratings of Experienced Safety on the EssenCES were linked to higher 'problematic events' although there was no elaboration regarding the meaning of this phrase. Contrary to the above findings which indicate an association between social climate and aggression, Dickens et al. (2014) found that participants' scores on the OAS did not significantly predict ratings of Experienced Safety or Patient Cohesion on the EssenCES. Also, Eggert et al. (2014) reported no changes in the frequency of patient-to-patient or patient-to-staff assaults, further to participants moving to a new forensic environment.

Discussion

The results of the studies in this review show some indications that perceptions of social climate are associated with aggression. The more open the institutional climate, the level of patient cohesion, patients/inmates feelings of safety, and atmosphere of the environment were some of the factors found to be associated with increased levels of aggression. However, in other studies there was no association found regarding the environment and aggressive incidents nor in relation to scores on the OAS. The reasons for these discrepancies might be related to the fact that the studies were conducted in different settings, with differing populations, and the use of different social climate questionnaires and measures of aggression. As such, a greater number of studies with comparable variables is needed in order to more accurately assess the associations between social climate and aggression.

When attempting to manage individuals with aggressive behaviors, clinical teams often focus on helping the person to develop skills in managing their emotions more effectively and/or produce guidelines for staff to follow (e.g., in the form of behavioral support plans) in order to manage the person's behaviors. As such, the focus is very much on how to try and change and/or manage the particular individual; however, the findings from this review suggest that more attention needs to be directed to how the external environment, including the people involved in the person's treatment, may play a part in their aggression. Therefore organizations also need to be establishing how the environment and team surrounding the individual contributes to a person's aggression and how these aspects could be improved in order to help in the reduction of such behaviors.

Strengths and weaknesses of the review

Perhaps one of the most salient weaknesses of the current review is that none of the articles explicitly defined social climate in terms of the aspects that they were measuring as part of their studies. In fact, the authors of the articles appear to have been guided more by the factors measured by the social climate assessments rather than having a pre-defined concept of social climate which they wanted to examine. As such, it is likely that some, if not all, of the studies will have worked from different definitions of social climate, making it difficult to compare their results. Therefore, it would appear that in order to bring some clarity to the field a 'universal' definition of social climate may be required. However, this universal definition may cause issues with regards to existing social climate measures, not all of which measure the same constructs.

Most of the studies used a cross-sectional design which only gathers data from one period of time; thus, no evidence can be gathered as to the temporal relationships between cause and effect (Carlson & Morrison, 2009), for example, between social climate and aggression. As

such, further studies would benefit from utilizing longitudinal designs where causality is more likely to be established. Indeed, many organizations routinely collect social climate and incident data at regular intervals over extended periods of time and it might therefore be possible to use these data in future research. In addition, studies could also measure social climate prior and subsequent to certain interventions being implemented (e.g., staff training, changes to the ward environment) to assess the impact of the interventions. Qualitative studies would also be a useful way of gathering information relating to patient and staff members' experiences of social climate, for example, via separate focus groups for staff and patients. Whilst such studies cannot identify cause and effect, they can elicit richer information by exploring individuals' perceptions of social climate in greater depth.

Very few of the studies in the review confirmed how aggression was operationalized and measured. Ros et al. (2013) categorize aggression with their study as: (1) arson; (2) threat, insult, and/or discrimination; (3) physical aggression against persons; (4) sexual intimidation; (5) suicide, attempt to suicide, or auto-mutilation, and (6) destruction and/or damage of the building, interior or materials. No other studies gave definitions, making it difficult to know whether or not they were measuring the same constructs of aggressive behaviors.

Furthermore, while some studies recorded the frequency of aggressive incidents, Van der Helm et al. (2012) used the BDHI (Buss & Durkee, 1957) which is a questionnaire-based assessment. Also, the studies conducted by Dickens et al. (2014) and Long et al. (2011a) used the OAS (Yudofsky et al., 1986) which are behavioral measures. Consequently, the construct of aggression has been utilized in a number of different ways in the literature, which clearly complicates the issue of synthesising the literature and drawing generalizable conclusions.

The included studies were conducted with participants within non-Intellectual Developmental Disability (IDD) settings indicating an underrepresentation of participants from the IDD population. Whilst a few social climate studies have been conducted with this client group, it

was unknown whether or not social climate affects individuals with IDD in similar ways to the general forensic population and so it would have been difficult to draw comparisons between individuals with IDD and the participants in the other studies in this review. As such, future research into social climate would also benefit from gathering data from staff and patients within the IDD population as well as adapting social climate measures for this client group to ensure the reliability and validity of such instruments. In addition, there were few identified studies which were conducted with prison populations; a greater number of studies examining this client group and the environment in which they reside may have brought more diverse information to the review.

Unpublished studies were excluded from the review which will have introduced publication bias. Despite this, hand searches of all relevant articles were conducted as well as contacting experts in the field of study which should mean that most of the relevant research articles were included. Six papers identified through the hand searches could not be obtained; some may have been of sufficient quality to add to the current review thereby bringing additional information to the data synthesis. The contacting of experts will also have brought some selection bias into the review; however, this method may also highlight studies which have been accepted for publication but have not yet been published (Torgerson, 2003) as occurred in the current review. The strengths of the review are that a robust search strategy was employed, and that a second rater quality screened a proportion of the research articles.

Implications for practice and future direction

Social climate has an important influence on levels of aggression in secure forensic settings. Services therefore need to not only focus on how specific individuals can be managed, but also explore ways in which any issues ‘outside’ of the individual (e.g., the physical environment, its management, and staffing) can be addressed in order to reduce the frequency

of aggressive incidents. As part of this, organizations have a responsibility to ensure that staff are working within a supportive environment as negative staff attitudes/issues of burnout can impact upon the way in which they interact with patients and potentially contribute to incidents of aggression (Agerfold & Andersen, 2006; Papadopoulos et al., 2012). As such, staff should have access to regular supervision in order to have a forum in which they can reflect on their practice and/or highlight any organizational issues which might need to be addressed. Staff should also be encouraged to identify any additional training and/or support needs and for the organization to try and meet these needs as best as possible. Such training and support may help staff to feel more valued by the organization, develop their self-confidence in dealing with challenging individuals, and promote consistent working practices. In turn, these changes might help to improve staff members' relationships with clients as well as the level of efficiency in the running of the unit, thereby reducing incidents of aggression.

Staff also need to be aware that many of the individuals with whom they work have significant histories of trauma and abuse. Trauma-informed care is reported to incorporate three key elements: 1) recognising the prevalence of trauma in individuals; 2) acknowledging how trauma impacts upon all of the people who form a part of the organization/environment; and 3) responding to such information by putting relevant policies and procedures in place (Substance Abuse and Mental Health Services Administration, 2014). Indeed, one study indicates that of the prisoners who reported being abused as children (which was 29% of the sample), 62% experienced emotional abuse, 61% physical abuse, and 31% sexual abuse. In addition 41% of inmates reported witnessing violence in the home as children (Williams, Papadopoulou, & Booth, 2012). As such, staff should be aware of how their behavior towards such individuals, as well as the therapeutic environment, can impact upon the people with whom they work. If individuals reside within an environment with a negative social climate –

which is associated with higher levels of aggression – this might exacerbate existing traumas or even generate new ones.

A more recent initiative which focuses on the quality of the environment in which staff and patients/inmates reside is that of Psychologically Informed Planned Environments (PIPEs). The staff working within PIPEs receive specialist training to develop a more psychological appreciation of their work which enables them to contribute to a safer and more supportive environment for all concerned. There is also a focus on the quality of relationships and interactions between staff and inmates, which has been found to contribute to a positive social climate. PIPEs were designed to support offenders within the personality disorder pathway to progress through their treatment in a way which prepared them to move through each stage (Bennett, 2014; Brown, 2014). Some individuals may experience difficulties or set-backs when they are ready to move through the treatment pathway and the PIPEs model was designed to ease these transitions (Turley, Payne, & Webster, 2013). It is clear that PIPEs focus heavily on ensuring that the environment – which includes the interactions between the people within that environment – is one which enables individuals to progress through treatment and gain the most benefit from residing within such a setting. Indeed, an internal publication for the National Health Service (NHS) and National Offender Management Service (NOMS) by Shearman (2013) evaluated the social climate of a unit using the EssenCES prior to and after a PIPE model was implemented. The results indicated that the unit was perceived as significantly more safe and supportive after the PIPE model had been introduced (as cited in Prison Service Journal, March 2015). In addition, a study conducted by Turley et al. (2013) found improved relationships between offenders' relationships with other offenders and staff. Offenders were observed to generally become more supportive of one another as well as more sociable. Staff also reported lower levels of bullying on PIPE units than on other wings of the prison. However, the research found that

some relationships were not always safe or supportive; there were reports of some offenders threatening violence or being violent towards other offenders. As we have already seen, supportive relationships can contribute to lower levels of aggression, but Turley et al. (2013) note that despite PIPEs having the potential to change offenders' behaviour the extent to which this may occur is still unclear. Therefore, further evaluations of PIPEs would be beneficial to assess whether or not the model is effective enough in minimising aggression in order that it can be implemented in other settings.

In linking with the above, the review also highlights the need for organizations to assess the environment in which their clients reside. Of course, there may be aspects about the environment which cause clients frustration which cannot be changed (e.g., level of security, and the restrictions placed upon clients who are on a section). It is therefore important to focus on those factors which can be altered if it is believed that they will be beneficial to the social climate of the environment. Organizations could review whether or not the layout of the environment is conducive to the safety and mental wellbeing of clients (and staff); for example, is the space sufficient that clients can be observed by staff, but are also afforded some privacy? Is the environment overly 'clinical' and could it be made more 'homely'? Such information could be gathered from both clients and staff by way of social climate measures.

Further work also needs to be completed to assess the reliability and validity of social climate measures. Revision of the WAS has already been recommended (Røssberg & Friis, 2003) and its applicability across settings and client groups requires further investigation. Given that the EssenCES is a relatively short measure to administer, this might be more appropriate to use with IDD populations; however, it also requires validation with this patient group and is yet to be validated in low secure settings, women's services, and young offender institutions.

The review has clarified the importance of the social climate in secure forensic service settings and is something which organizations should be regularly monitoring for the benefit of both patients and staff. There have been issues highlighted regarding how social climate and aggression have been operationalized in the studies. Indeed, future studies would benefit from defining these constructs more clearly for the benefit of readers and fellow researchers. Nonetheless, taking the results of the studies within the current review into account, services that create positive social climates for both staff and patients are more likely to see lower levels of aggression.

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