The attitude of nurses towards inpatient aggression in psychiatric care
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Chapter 1

General Introduction and Outline

Human aggression has become an every day issue, not only in daily social life but also in health care. Acts of public violence are reported in the newspapers on a daily basis and health professionals estimate that there is a growing incidence of violent acts in their practices. Even in non-war zones public aggression has an impact on daily life and public safety is an issue that dominates the agenda of public administration. This phenomenon is not exclusive to public life. Within the domain of health care, patients may become aggressive towards other patients, staff towards patients, and patients towards staff. Aggression occurs in every health care setting, among all categories of patient populations.

This dissertation addresses the topic of aggression by patients in psychiatric hospitals. Of the multidisciplinary team members who are confronted with the aggressive behaviour of patients, nurses are more likely to become involved in such aggressive situations than other health professionals, since they have multiple interactions with patients, 24 hours a day. An important aspect of aggressive behaviour in psychiatric care settings is the prevention and the management of patient behaviour by professionals, that is, by nurses. From social psychology theories we know that ‘attitude’ is the core concept that contributes to the intention preceding the performance of behaviour. For this reason the focus in this dissertation will be on the attitude that psychiatric nurses have towards the aggressive behaviour of patients in institutional psychiatric settings. The problem however, is that little is yet known about the attitude of professionals to aggression. To this end the thesis will also address the development of an attitude scale towards aggression.

This introductory chapter begins with a general description of the concept of aggression in health care and is followed by information about the factors that are associated with aggressive behaviour in psychiatric patients. In the next section the implications of these aggression-related factors for patient care are described. After introducing the conceptual framework for the dissertation, the aims, the research questions and the research model of the thesis are outlined. The chapter ends with a summary of the contents of the thesis.
1.1 Aggressive behaviour

In this section a general introduction to the concept of aggression is provided. After close consideration of the definition of aggression, an overview of the most cited theories about the origins of aggression is given, followed by a description of the types of aggression.

Definition and origins of aggression

The Oxford Dictionary (1989) defines aggression (from the Latin aggressio attack, from aggredi to attack, from ad- + gradi to step, go more at) as a ‘forceful action or procedure especially when intended to dominate or master and as hostile, injurious, or destructive behaviour or outlook’. Some authors differentiate between aggression and violence. The Oxford English Dictionary (1989) defines violence (from the Latin violentia vehemence, impetuosity) as ‘the exercise of physical force so as to inflict injury on, or cause damage to, persons or property; action or conduct characterized by this; treatment or usage tending to cause bodily injury or forcibly interfering with personal freedom’. Rippon (2000) concluded that by definition violence is synonymous with aggression, however violence is reserved for those acts of aggression that are particularly intense and more heinous, infamous or reprehensible.

Geen (2001) introduced two characteristics that he considered should belong to a definition of aggression: firstly, there must be an intention to harm, and secondly the person towards whom the behaviour is directed must be motivated to avoid such interaction. Thus, he proposed the following working definition of aggression: ‘the delivery of an adverse stimulus from one person to another, with intent to harm and with an expectation of causing such harm, when the other person is motivated to escape or avoid the stimulus’ (Geen, 2001, p. 3).

According to Palmstierna (2002) aggression is a multidimensional construct. He proposed a three dimensional approach to define aggression:

- inner experience versus outward behaviour
- aggressor’s view versus observer’s view and
- persistent versus episodical occurrence (trait or state)

In the last decade of the last century, several theoretical frameworks were developed to explain the origins of aggression. These include psychological theories, genetic and biological models, and sociological, or cultural, theories.

One of the early theories about the origin of aggression stems from the psychodynamic theory. From this point of view there is a permanent opposition between the death instinct (thanatos) and the life instinct (eros). The death instinct may be neutralized by libidinal energy or redirected through sublimation or displacement, but aggressive energy may also be directed towards others or result in
self-destruction if the instinct is unrestrained or if neutralization is incomplete (Freud, 1930).

Aggression can also be considered as a learned social behaviour. The social learning theory emerged in the 1960s, largely as a result of the theorising of Albert Bandura and his associates. Social learning consists of the acquisition of responses through observation and the maintenance of particular behaviours through reinforcement. The theory includes a recognition of biological factors in aggression without regarding such factors as direct causes of aggressive behaviour (Bandura, 1983).

Explanations of human aggression based on the science of behavioural biology or ethology, can be traced back to Konrad Lorenz’s 1966 book *On Aggression*. Lorenz explained aggression as behaviour triggered by specific external stimuli following a progressive accumulation of aggression-specific energy within the person. Aggression is followed by a cathartic decrease in such energy and the beginning of a new build-up. For the ethologist, aggressive behaviour is an innate instinct that must be regularly discharged in the appropriate context. In this view aggression is inevitable and functions as a self-assertive force in the presence of aggression-releasing stimuli.

The evidence from studies on the role of inherited biological factors in human aggression in twins is mixed and inconclusive. However, the idea that at least some part of human aggressiveness is inherited has been gaining increasing acceptance. The most convincing studies have been those in which comparisons have been made between monozygotic and dizygotic pairs of twins on the basis of self-reports of aggressiveness on personality inventories. Evidence of higher correlations between monozygotic twins is taken as evidence of some heritability associated with the trait. In a study by Rushton (1986) correlations between personality traits such as altruism, empathy and nurturance on the one side and aggressiveness on the other were higher than with the dizygotic twins. However, in a review of 24 studies covering a wide range of methods, Miles and Carey (1997) found that evidence for the heritability of aggression depends on several variables, such as the age of the sample and whether aggression is quantified in terms of parent- and self-reporting, or the clinical observation of behaviour. Outcomes also seem to depend on how aggression is defined.

On the basis of the above it must be suggested that there is still not sufficient evidence from any type of study to draw strong conclusions on the role of heredity in aggression.

**Types of aggression**

Buss (1961) proposed eight different modes of aggression in a three-dimensional model: physical-verbal, active-passive and direct-indirect. He later refined the categories into physical-verbal and direct-indirect
(Buss, 1995). Geen (2001) offers another classification which divides human aggression into affective and instrumental aggression. Affective behaviour is aimed primarily at injuring the provoking person. Instrumental aggression is simply a means to some end, such as self-defence, establishing coercive power over others, or obedience to commands from a person with authority. The two kinds of aggression are not mutually exclusive. Other studies (Crick and Dodge 1996) draw a distinction between reactive and proactive aggression. Reactive aggression refers to aggressive behaviour enacted in response to provocation, while proactive aggression is initiated without apparent provocation, for example bullying behaviour.

1.2 Aggression in Psychiatric Care

This section considers patient aggression in the health care setting, specifically psychiatric care. The section starts with a description of the results from studies on the prevalence of aggression in psychiatric care, followed by information on the measurement and prediction of aggression.

Prevalence of aggression in psychiatric care

Aggression is a serious problem in society as well as in health care. The increase in aggressive incidents in health care settings is reflected in the attention that is being paid to the phenomenon of aggressive behaviour by patients in the scientific journals. A search with the key words ‘violence’, ‘aggression’ and ‘patient’ in the electronic database Pub Med showed that 183 papers addressing this topic were published between 1995 and 1999. However, in the period 2000 to 2004 a total of 317 papers addressing aggression in health care were published.

On the basis of a systematic review of the literature, (Bjorkly, 1996) estimated that 15% to 30% of hospitalized psychiatric patients have been involved in physical assaults. The prevalence of aggression among hospitalized psychiatric patients has to be estimated by comparing results from several descriptive studies, since no national databases are available to provide such data. The latest study in the Netherlands was performed in 1996. In this study the investigators found prevalence rates ranging from 22.8 incidents per bed per year on locked admission wards to 17.6 incidents per bed per year on the long-stay wards (Broers and De Lange, 1996). Nijman (1999) reviewed a substantial number of descriptive studies on the epidemiology of aggressive incidents and found a considerable range in the number of incidents, from 0.15 assaults per bed per year (Fottrell, 1980) to 88.8 incidents per bed per year (Brizer et al., 1987). Several explanations have been suggested for this wide range. Davis (1991) put forward the
explanation that studies on inpatient violence are difficult to compare because of differing definitions of violence and the various settings in which studies were performed. These settings ranged from general hospitals to psychiatric and forensic hospitals.

**Instruments for measuring aggression in psychiatric care**

In the research literature, aggression is operationalized in various ways. Some research papers include ‘verbal abuse’ and ‘threatening behaviour’ (Bouras *et al.*, 1982), others refer to ‘damage to property’ (Armond, 1982) and ‘self harm’ (Fottrell *et al.*, 1978). Some studies focus on ‘physical attacks on persons’ only (Shader *et al.*, 1977; Dietz and Rada, 1982; Tardiff, 1984) while others limit their scope of interest to ‘physical attacks on hospital staff’ (Ruben *et al.*, 1980; Hodgkinson *et al.*, 1985). Until the introduction of the Staff Observation Aggression Scale, (Palmstierna and Wistedt, 1987) aggression or assaultive behaviour was defined vaguely in research or not defined at all. In the SOAS-R (Nijman *et al.*, 1999), the definition of aggression by the APA (American Psychiatric Association, 1974) was adopted, conceptualizing aggression as ‘any verbal, non-verbal, or physical behaviour that is threatening (to self, others or property), or physical behaviour that actually does harm’. Some studies make the distinction between ‘physical and verbal assaultiveness’, while others do not distinguish between these modes of aggression in their statistical analysis or do not address the issue at all (Haller and Deluty, 1988).

A wide spectrum of measurement scales is available for research purposes. According to Bech (1994) instruments for measuring the aggressive behaviour of psychiatric patients can be divided into self-rating aggression scales and observer aggression scales. Examples of the two types are presented in Table 1.

Self-report scales are designed to measure angry feelings, violent thoughts or reactions to anger provoking situations. A well-known self-rating questionnaire for measuring hostility and anger is the Buss-Durkee Hostility Inventory (Buss and Durkee, 1957). There are a wide range of observer-based or objective rating scales. Observer-based scales are scales completed by someone other than the patient and record aggressive incidents. Some scales, such as the Nurses’ Observation Scale for Inpatient Evaluation (Honigfeld *et al.*, 1965) contain some items that rate aggressiveness but do not differentiate between mildly aggressive behaviour from more severe forms, nor do they provide the capacity to document the number, or describe the types of aggressive behaviour. In addition to the general scales, specific scales have been designed to measure aggression.
TABLE 1  AGGRESSION SCALES

<table>
<thead>
<tr>
<th>self-rating scales</th>
<th>author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buss-Durkee Hostility Inventory (BDHI)</td>
<td>Buss and Durkee, 1957</td>
</tr>
<tr>
<td>Novaco Anger Scale</td>
<td>Novaco, 1994</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>observer based scales</th>
<th>author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>general</td>
<td></td>
</tr>
<tr>
<td>Nurses’ Observation Scale for Inpatient Evaluation (NOSIE)</td>
<td>Honigfeld et al., 1965</td>
</tr>
<tr>
<td>Brief Psychiatric Rating Scale (BPRS)</td>
<td>Overall and Gorham, 1962</td>
</tr>
<tr>
<td>specific</td>
<td></td>
</tr>
<tr>
<td>Overt Aggression Scale (OAS)</td>
<td>Yudofsky et al., 1986</td>
</tr>
<tr>
<td>Retrospective Overt Aggression Scale (ROAS)</td>
<td>Sorgi et al., 1991</td>
</tr>
<tr>
<td>Staff Observation Aggression Scale (SOAS)</td>
<td>Palmstierna and Wistedt, 1987</td>
</tr>
<tr>
<td>Scale for the assessment of Agitated and Aggressive Behaviour (SAAB)</td>
<td>Brizer et al., 1987</td>
</tr>
<tr>
<td>Aggressive Incident Record Form (AIRF)</td>
<td>Paxton et al., 1997</td>
</tr>
<tr>
<td>Modified version of the Overt Aggression Scale (MOAS), Social Dysfunction and Aggression Scale (SDAS-9)</td>
<td>Kay et al., 1988</td>
</tr>
<tr>
<td>Violence Scale (VS)</td>
<td>Wistedt et al., 1990</td>
</tr>
<tr>
<td>Report Form for Aggressive Episodes (REFA)</td>
<td>Morrison, 1993</td>
</tr>
<tr>
<td>Staff Observation Aggression Scale-Revised (SOAS-R)</td>
<td>Bjørkly, 1996; Bjørkly, 1998</td>
</tr>
</tbody>
</table>

The existing self-report scales as well as the observer based scales do have some limitations. According to Bjørkly (1995), self-report scales such as the BDHI have so far failed to be accurate instruments for predicting violence (p. 493). Yudofsky (1986) pointed out that patients whose cognitive abilities are impaired by psychosis or organic mental disease cannot reliably complete questionnaires. Furthermore, many patients are not angry between aggressive episodes, and do not reliably recall or admit to past violent events (p. 35). A review by Bowers (1999) concluded that all observer scales have some drawbacks for research. With the exception of the SOAS-R, which was not included in the study, he considers that aggression is defined too broadly and that the instruments conceptualize the severity of a violent incident poorly. He suggests a new scale – the ‘Attacks Scale’ (Attempted and Actual Assault Scale) – to overcome these limitations (Bowers et al., 2002). The innovative value of the scale is that it tries to capture the potential injury of the incident regardless of intent. To this end four indicators were constructed: ‘warning’ (clear verbal threat or no threat), ‘attempted or actual assault’ (body parts that were attacked), ‘commitment’ (speed, power and recklessness of the attack) and ‘estimated potential for injury’.

Although existing instruments have deficiencies as they cover only a limited number of aspects of the behaviour or lack validity testing, they have played an important role in the past in making the problem manifest to health care managers and administrators. At present, the problem is more recognized by the health care sector. Therefore, the next generation of aggression related instruments should focus more precisely on the details of the behaviour in order to facilitate the deci-
sion-making processes of clinicians in relation to the prevention and management of aggression. For research purposes these types of instruments should provide more information about aggression in specific populations, in specific circumstances and under specific treatment conditions.

1.3 Associated Factors of Patient Aggression in Psychiatric Care

Researchers have attempted to understand the factors associated with the occurrence of aggression at the following three different levels: the patient level, the staff level and the environmental level. These levels are described below.

**Patient factors**

Patient factors include biological factors, gender, age, social and economic status and psychopathology. Studies on the biological bases of aggression are concerned with heredity factors, hormonal effects (testosterone) and the role of brain mechanisms (limbic system and the cerebral cortex).

With regard to gender, the results of studies undertaken on this topic are inconclusive. Some researchers have found males to be more assaultive (Bornstein, 1985) but others have reported no relationship between gender and violence (Lam *et al.*, 2000; Craig, 1982; Durivage, 1989; Nijman *et al.*, 1997; Kay *et al.*, 1988). In fact some studies have reported higher rates of violence among female patients (Convey, 1986; Palmstierna and Wistedt, 1989; Way and Banks, 1990).

A number of researchers have found that assaults are more often committed by younger inpatients (Bornstein, 1985; Pearson *et al.*, 1986; Karson and Bigelow, 1987; James *et al.*, 1990; Whittington *et al.*, 1996). While the findings generally remain inconclusive; adolescent patients in particular may be implicated (Garrison, 1984; Reid *et al.*, 1989).

There have been a number of studies that have attempted to dissect the factors of culture and economics in the production of violence in society. Associations between demographic characteristics and physical assaultiveness remain uncertain, but there seems to be a relationship between absolute poverty, disruption of marriages and physical overcrowding (Tardiff, 1989).

No conclusive findings about the relation between psychopathology and the likelihood of becoming aggressive can be found in the literature. Mania, personality disorders, substance abuse and organic brain disease are thought to be associated with a heightened level of aggressive behaviour (Tardiff, 1992). Those studies focusing on the relationship between clinical characteristics and inpatient aggression, have generally found the diagnosis of schizophrenia to be more often related to aggression than are other disorders or symptoms (Depp, 1976).
Recent studies have produced a body of evidence indicating an association between certain symptoms of mental illness and aggression in some categories of patients. Delusions, particularly those of a persecutory nature, may have a significant and direct influence on aggression. Disorder of thought, increased physiological arousal, disorganized behaviour and substance abuse may all contribute to a lesser extent to the production of aggressive behaviour: the phase of illness is crucial. The likelihood of psychotic patients behaving aggressively is greatest during the acute phase of the illness (Mulvey, 1994; Daffern and Howells, 2002). A review study by Walsh (2002) confirms a significant association between violence and schizophrenia, but finds that less than 10% of societal violence is attributable to schizophrenia. However, a study among psychiatric patients with a first episode of schizophrenia or schizoaffective disorders showed that 75% of the men and 53% of the women exhibited some type of aggressive behaviour during the first or subsequent admissions (Steinert et al., 1999).

A social factor which is known to be predictive for violent behaviour at an adult age is child maltreatment. Studies on familial and non-familial violence show that violent people report higher rates of physical abuse (Malinosky-Rummell and Hansen, 1993). Child maltreatment has a cultural component. Death as a result of child maltreatment is more common in countries such as Portugal, Mexico and the USA than in Norway, The Netherlands, Switzerland or the UK (UNICEF Innocenti Research Centre, 2003). The relation between child maltreatment and culture was confirmed in a study of Dutch immigrants. The study found that the risks of detrimental actions was highest for parents from non-industrialized countries (Reijneveld et al., 2004).

**Staff factors**

These factors pertain to inexperience or lack of training, low staff-to-patient ratios, lack of a clear role, and the involuntary admission of the patient. Most of the studies on the effects of staff education and training found that training staff in how to react to threatening situations can lead to a decline in the frequency or severity of aggressive incidents (Infantino and Musingo, 1985; Paterson et al., 1992; Rixtel, 1997; Phillips and Rudestam, 1995; Whittington and Wykes, 1996). In a study by Way, no association was found between low staff-to-patient ratios and an increase in violent behaviour (Way et al., 1992). In some studies an inverse relationship between assault frequency and the number of staff members relative to patients was found. The conclusions from studies of the association between staff levels and aggression have to be examined with caution, because high staff levels and high levels of aggression may be a consequence of the inclusion of patients who are prone to violence. No randomized clinical trials are available to provide evidence for such conclusions.
Crowding rather than the total number of patients per ward was suggested as a factor related to assault (Lanza et al., 1994; Kuei-Ru Chou et al., 2002). In a study by Owen (1998), the relative risk of aggression increased with more nursing staff (of either sex), with more non-nursing staff on planned leave and with more unplanned absenteeism by nursing staff. In two studies it was found that violence was more frequent and more extreme in wards in which staff roles were unclear, and in which events such as activities, meetings or staff-patient encounters were unpredictable. Violence was less frequent and less extreme in wards characterized by strong psychiatric leadership, clearly structured staff roles, and events that were standardized and predictable (Hodgkinson et al., 1985; Katz and Kirkland, 1990).

**Environmental factors**

The environmental stimuli of aggression can be divided into two categories: physical stimuli and stimuli in the social environment. Two examples of physical environmental stimuli as antecedents of aggression are high ambient temperature (Anderson et al., 2000) and noise (Geen, 1978).

The following provides an overview of the social environmental factors influencing the rate of aggressive incidents in patient care.

Studies on the association between the time of day and an increase of aggression showed that most incidents took place during the day, with fewer occurring in the evening, and the lowest rate found during the night. Some studies reported on the finding that most assaults occurred during meal times and early in the afternoon (Carmel and Hunter, 1989; Lanza et al., 1994; Bradley et al., 2001; Vanderslott, 1998; Nijman et al., 1995), while others found an increased rate of aggressive acts in the morning (Fottrell, 1980; Hodgkinson et al., 1985; Cooper and Mendonca, 1991). Several studies found a relationship between length of stay (duration of admission) and aggression. These studies indicated that most assaults took place just before or in the first days after admission to the hospital (Tardiff, 1984; Nijman et al., 1995; Barlow et al., 2000; Kuei-Ru Chou et al., 2002). Some research has been done into the association between the day of the week and aggressive behaviour. Nijman found that most incidents on an acute admission ward took place on Monday and the fewest on Friday (Nijman, 1999). In another study (Carmel and Hunter, 1989) the days on which the majority of incidents were registered were found to be Monday, Tuesday and Friday.

The locations in which aggressive incidents occur most frequently are the ward corridors and dayrooms (Hodgkinson et al., 1985; Lanza et al., 1994). Other locations mentioned in studies are the nursing station and the locked door, places where interaction between staff and patients takes place (Nijman et al., 1995).
As stated above crowding was suggested as a factor related to assault. The degree of patient acuity seemed to be inversely related to assault frequency. Trends between assault frequency and a low score on autonomy and a high score on staff control were also suggested. A number of other studies have found a positive correlation between the occupancy level and the occurrence of violent incidents (Palmstierna et al., 1991; Nijman and Rector, 1999; Bradley et al., 2001). Kumar (2001) suggested a number of explanations for this relation: the density and lack of privacy and control over the environment, architectural shortcomings, the social organization of a ward and a limited body buffer zone.

Another important social element in the environment causing aggression are factors related to patient-staff dynamics. These include: lack of control by staff (Lanza, 1983), few or poorly organized activities, uncertainty, confusion or fear about the staff-patient relationship (Katz and Kirkland, 1990) and poor staff-patient interaction (Sheridan et al., 1990; Cheung et al., 1997; Lancee et al., 1995).

1.4 **Implications of the Associated Factors for Patient Care**

Knowledge about the factors associated with the occurrence of aggression is a prerequisite for the prediction of the behaviour in the clinical setting. Predicting the risk of violence, which is of high importance especially within forensic psychiatry given its consequences for public safety, has a long and problematic history. In predicting violence a distinction can be made between 1 unaided clinical risk assessment, 2 actuarial or statistical methods, and 3 structured clinical judgement. In unaided clinical judgement, information about the probability and risk of violence is processed from the personal perspective of the decision maker, whereas in actuarial methods, decisions about the risk of violence are estimated on the basis of factors that are known to be associated with the occurrence of aggression across settings and individuals. These risk factors are applied in so-called ‘decision trees’ by which the clinician can estimate the risk of violence.

The third method, structured clinical judgement, represents a composite of empirical knowledge and clinical/professional expertise. Several instruments have been developed to support risk assessment in clinical contexts. In their review of risk prediction, Dolan and Doyle (2000) concluded that prediction is an inexact science and as such will continue to provoke debate. For this reason, according to Dolan and Doyle, clinicians clearly need to be able to demonstrate the rationale behind their decisions on the risk of violence. Harris and Rice (1997) found that the factors most highly and consistently related to risk are: age, gender, past antisocial and violent conduct, psycho-
pathy, aggressive childhood behaviour and substance abuse. Major mental disorder and psychiatric disturbance are poor predictors. A history of violent behaviour has often been found to predict future violent behaviour (Bornstein, 1985; Convit et al., 1988; Kuei-Ru Chou et al., 2002). Some authors have found it to be the best single predictor of subsequent violent behaviour (Kroll and Mackenzie, 1983; Davis and Boster, 1988). In a study by Nijman a history of violence was also found to be a significant predictor of aggression (Nijman et al., 2002).

Steinert adds to this conclusion that moderately good predictors in the psychiatric field are the psychopathological state and the ward environment. More precise determinants fail due to the inevitable problems of sample selection. Detailed statements are only valid for specific samples and specific forms of violence under specific treatment conditions (Steinert, 2002). Furthermore, several studies indicated that the risk of violence is significantly associated with patients detained involuntarily or compulsorily admitted (Edwards, 1988; Noble, 1989; Owen, 1998; Soliman, 2001).

The ward environment or milieu is another factor associated with aggression that is described in the literature. In an early study on the ward environment in psychiatry, Bouras found a difference in the extent of disturbed behaviour between a psychiatric unit run on traditional medical lines and a therapeutic community. The patients of the therapeutic community were significantly more disturbed and violent than those on the medical unit (Bouras et al., 1982). Friis found that psychotic and non-psychotic patients need different types of atmospheres. Psychotic patients seem to benefit primarily from a milieu with a high level of support, practical orientation, order and organization, and a low level of anger and aggression. Non-psychotic patients, on the other hand, seem to benefit mostly from a milieu in which the level of staff control is low and the level of anger and aggression is intermediate (Friis, 1986). According to Friis, interventions to prevent violence can aim at individual patients and/or the milieu. The individual interventions ought to establish a working alliance and teach patients appropriate behavioural responses to anger and frustration. The milieu interventions should train staff in how to solve conflicts and handle their relationship with potentially violent patients (Friis and Helldin, 1994).

### 1.5 Staff Behaviour towards Aggression in Inpatient Psychiatric Care

As mentioned at the beginning of this chapter, aggression and also the management of it have become important issues in healthcare. Most studies on institutional patient aggression concentrate either on
the measurement of the prevalence of aggressive behaviour or on the nature and effectiveness of strategies to control the behaviour. However, a limited number of studies focus on the attitude to aggression by health care workers. The basic assumption in this thesis is that the way nurses handle aggression by patients is dependent on their attitude to the behaviour. The theoretical relation between the attitude and the behaviour of nurses will be delineated in this section.

Theory of Planned Behavior

The conceptual model of this thesis comprises two elements: firstly, the relation between the attitude and the ‘management behaviour’ of patient aggression; and secondly, the predictors of the attitude towards this aggression. To start with the first element, attitude and management, as stated in the previous section the way in which staff members manage patient aggression is assumed to be guided by the way they evaluate patient behaviour. In the context of this dissertation, the management of patient aggression by staff is conceived of as another kind of behaviour. Several theories underscore the relation between attitude and behaviour, such as the social cognitive theory (Bandura, 1999), and the Theory of Planned Behavior (Ajzen, 1991). The Theory of Planned Behavior is an extension of the Theory of Reasoned Action. The Theory of Reasoned Action (Fishbein and Ajzen, 1975) addresses the issue of ‘causal antecedents of volitional behaviour’. The Theory of Planned Behavior was designed to predict behaviours not entirely under volitional control by including measures of perceived behavioural control.

![Conceptual Framework of Staff Behaviour](image-url)
Central to the Theory of Reasoned Action and Theory of Planned Behavior is the concept of ‘intention’. As the principal predictor of behaviour, intention is regarded as the motivation necessary to engage in a particular behaviour – the more one intends to engage in a particular form of behaviour, the more likely is its performance. Underlying these intentions are attitudes towards the behaviour, subjective norms and perceived behavioural control.

In the Theory of Planned Behaviour, attitude is a function of the beliefs held about the specific behaviour, as well as a function of the evaluation of likely outcomes. Attitude, therefore, may be conceptualised as ‘the amount of affect – feelings – for or against some object or a person’s favourable or unfavourable evaluation of an object’. Attitudes are derived from salient behavioural beliefs. The second determinant of intention – the subjective norm – is defined as the perception of general social pressure from important others to perform or not to perform a given behaviour. the third element – perceived control – is defined as ‘the perceived ease or difficulty of performing the behaviour’ and is assumed ‘to reflect past experience as well as anticipated impediments and obstacles’ (Ajzen, 1988). Ajzen argued that perceived behavioural control will accurately predict behaviour only when perceived control closely approximates actual control (hence the broken line in Figure 1).

Within the domain of health care, the Theory of Planned Behavior is used as a conceptual framework for preventive interventions and to clarify the anticipated effects of a disease management intervention or programme on patient behaviour. In the context of health care, interventions are aimed at changing the behaviour by influencing either the patient’s attitude or their perceived control over healthy behaviour, or both. Attitude change can take place as a result of patient education and information programmes, such as smoking cessation programmes or programmes to promote compliance with pharmaceutical treatment and treatment conditions. Perceived control can be enhanced in many ways, for instance by learning new cognitive or behavioural skills. Subjective norms may be influenced by national or community-based public health programmes such as non-smoking campaigns or information about healthy food intake. Treatment conditions can also entail behaviour such as adherence to exercise programmes. Regardless of the focus of the programme or intervention, it is always aimed at changing one or more of the elements of the Theory of Planned Behavior and ultimately at changing the patient’s behaviour.
The relationships between the concepts of ‘behavioural control’, ‘intention’ and ‘behaviour’ are not tested in this thesis, which concentrates on the ‘attitude’ and ‘subjective norm’ component of Ajzen’s theory regarding nurses. The concepts that are addressed in this thesis are shaded in Figure 1. This thesis is concerned with the attitude of nurses to patient behaviour, specifically the aggressive behaviour of patients in institutional psychiatry. As the Theory of Planned Behavior is not exclusively concerned with patients but with human behaviour in general, should be regarded as the basic idea underlying the studies described in this thesis.

The second element of the conceptual framework addressed in the thesis pertains to the concept of ‘subjective norm’. Environmental factors related to the occurrence of aggression, as described in Section 1.3, are considered to represent the subjective norm. Although there is a direct relation between subjective norm and intention, the subjective norm also relates to attitude, according to Ajzen’s theory. This thesis considers that the environmental factors all contribute to the social dimension of the work environment and the occupational culture of nurses, and thereby contribute to the perception of the social pressure which nurses experience in performing particular management behaviour. For this reason these factors will be denoted as the subjective norm indicators in the final chapter of this thesis.

1.6 Aims, Research Model and Research Questions

In this section the aims and the research questions are formulated along with their relation to the conceptual framework outlined in the previous section.

Aims
The Theory of Planned Behavior postulates that ‘attitude’ together with ‘subjective norm’ and ‘perceived control’ are the building blocks for the prediction of human behaviour. Since there is no structured research and there are no clinical tools available to measure attitude to aggression, the aims of this thesis are:

1. to develop a valid and reliable instrument to measure the attitude of staff to aggression displayed by patients who are admitted due to psychiatric problems. The measurement instrument can be a useful tool in clinical practice, particularly at a group level, for the assessment of staff attitude towards aggression. The tool is devised to support decision making concerning the management of aggressive behaviour on a ward. As there is also a lack of knowledge about staff attitude in various countries, the tool should also facilitate international
comparative research.  
2 to explore the factors (subjective norm and personal characteristics) that are related to the attitude towards aggression. If we have a basic understanding of what factors influence the attitude nurses have towards aggression, this information can be useful in additional research with a focus on the function of such factors in the interaction dynamics taking place between nurses and patients preceding the occurrence of an aggressive incident.

In **FIGURE 2**, the research model of this thesis is presented as an element of the Theory of Planned Behavior.

**FIGURE 2**  
The research model, indicating the predictors of staff attitude to patient aggression

**Research questions**

The aims of the thesis lead to the formulation of the following research questions:

1 to what extent is the concept of ‘attitude’, as defined within the Theory of Planned Behavior, addressed in existing instruments?

2 what are the theoretically relevant aspects belonging to coherent dimensions or domains of attitude towards aggressive inpatient behaviour?

3 what is the result of the evaluation of the psychometric properties (construct validity and internal consistency) of the measures within and across countries?

4 what is the valid operationalization of these aspects of the attitude psychiatric nurses have towards patient aggression?

5 which personal characteristics of nurses and which characteristics of the organization as the occupational environment (subjective norm) predict their attitude to aggression?

6 are there cross-cultural differences in the attitude nurses have to inpatient aggression?
1.7 Study Samples, Operationalization and Data Collection procedure

Samples
The studies in this thesis comprise both national and international samples. The majority of respondents are psychiatric nurses working in psychiatric hospitals. The studies reported on in Chapters 3 and 4 are based on Dutch samples, whereas the studies presented in the Chapters 5 and 6 have an international sample.
In the first Dutch study (Chapter 3) nurses from five psychiatric hospitals were included. These hospitals were located throughout the country. In the second Dutch study (Chapter 4), the study sample comprises nurses from one institution for the demented elderly and nurses from about 30 psychiatric institutions for children and adolescents. These institutions are also spread throughout the country. The international sample (Chapters 5 and 6) consists of psychiatric nurses from the Netherlands, Germany, Norway, the United Kingdom and Switzerland.

Operationalization
Consistent with the research model, three groups of variables are considered by this thesis: the attitude, the subjective norm indicators and the personal characteristics of the nurses.

The operationalization of the concept of attitude, relies for its basis on the outcome of a qualitative study on the characterization and perception of patient aggression by nurses working on psychiatric wards in a psychiatric hospital in the Netherlands (Finnema et al., 1994). Five categories of definitions emerged from that study: definitions containing a value statement on aggression, definitions describing a form of aggressive behaviour, definitions describing the feeling aggression arouses in nurses, definitions describing a function of aggression and definitions describing the consequences of aggression.

The ‘subjective norm’ indicators related to the occupational environment of nurses were operationalized as:
• the care setting of the organization respondents were working in (adult psychiatry, child/adolescent psychiatry, psycho-geriatrics)
• the type of ward (acute ward, short stay, long stay)
• the prevalence of aggression on the ward the nurses worked on
• the legal status of the patient on admission (voluntary or involuntary)
• the health sector where the respondents were employed (adult, child psychiatry, psycho geriatrics)
• the making use of constraining interventions such as separation and fixation
The third component in the research model, the personal characteristics of nurses, includes:

- the gender of nurses
- age
- nursing grade or qualification
- years of work experience
- involvement or not in training aggression management
- full-time or part-time work
- shifts (day/evening/night)

The variable ‘shift’ corresponds to what is described as ‘the time of the day’ factor in the literature.

**Data collection procedure**

In the Netherlands the questionnaire was sent to contact persons in the selected hospitals and institutions. The international data-set was achieved within the framework of the European Violence in Psychiatry Research Group (EViPRG). The EViPRG was founded in 1997 in the UK. The group now comprises members from about 15 countries, including Finland, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland and the UK. It promotes the dissemination of expertise and knowledge on violence in psychiatry among its members and outside the EViPRG. In the group, each country is represented by experts in research, education, psychiatry, psychiatric nursing, psychology, sociology and trainers who specialize in the management of violence. Group members of the EViPRG in the five participating European countries collected the data in their home country.

### 1.8 Summary of Contents

The following overview describes the various studies and the contribution they make towards the study objectives.

**CHAPTER 1** provides a general description of patient aggression in health care settings with the focus on aggression in psychiatric hospitals. It also introduces the conceptual framework, the aims of the thesis and the research questions.

**CHAPTER 2** gives an answer to research question 1 by reporting on a review of the international literature on staff attitudes towards aggression. Research is reviewed on staff attitudes towards aggression by patients in psychiatric settings as well as in general hospitals. The aim of the study is to firstly examine the extent to which the concept of ‘attitude’ is addressed in research, and secondly to get an insight into the attitude objects that are described.
Throughout the chapters 3 to 5 answers are provided to research questions 2 and 3, that is, those concerning the development of an instrument to measure the attitude to aggression, and also to research question 4 which pertains to the prediction of the attitude.

CHAPTER 3 presents the draft version of the instrument. The questionnaire that is developed is based mainly on 60 definitions which nurses formulated concerning patient aggression. The information is taken from the qualitative study mentioned in the previous section. The sample comprises psychiatric nurses from five Dutch psychiatric hospitals. The aim of the study is to develop a measure of the perception that nurses have of patient aggression. The study focuses on the concept of ‘perception’ to denote the perspective of the health care worker on aggression by patients. For this reason the initial instrument is called the Perception of Aggression Scale (POAS).

CHAPTER 4 reports on a study that was also undertaken in the Netherlands however, this time the sample included nurses from psycho-geriatric homes and nurses working in psychiatric institutions for children and adolescents. For the first time results are reported using the Attitudes Towards Aggression Scale (ATAS). A shift is made from the concept of perception to the concept of attitude due to respondents being asked to react by giving their opinion on verbal statements defining aggression. Their evaluation of the statements about aggression, whether they agree or disagree is considered to be an expression of their attitude towards aggression.

CHAPTER 5 is devoted to the testing of the psychometric properties of the ATAS. In this international study, the construct validity of the instrument was evaluated. The sample consisted of nurses from five European countries.

CHAPTER 6 presents the final empirical study. Again, this study is an international study, with the aim of exploring the differences in attitude to patient aggression between nurses from five countries. The study starts with an exploration of the personal and occupational subjective norm indicators of the nurses, which are related to the types of attitude in the total sample. The study concludes with an answer to research question 6 regarding the differences in attitude between nurses from the participating countries.

CHAPTER 7 presents a general discussion of the findings of the dissertation. Its limitations and implications are described and conclusions are drawn regarding the further use of the ATAS.
Reference List


