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Breakaway training for NHS staff: time for a fresh approach?

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Abstract

Since the early 1980s, breakaway training has been synonymous with many prevention and management of violence and aggression (PMVA) training programmes in social care and NHS settings. However, for almost three decades, this community has continued to accept a training approach that has been largely unsupported by a robust underpinning methodology or evidence base. The validity of this historical training approach will be examined in context with the available literature, and will seek to identify the fundamental flaws that have been inherent in the traditional system. This paper will conclude by making some practical suggestions on how the efficacy of personal protective training may be

improved, based on the emerging findings from other scientific fields.

Key words

Violence; aggression; breakaway techniques; self-protection; PMVA

Introduction

The prevalence of violence and aggression in UK mental health services is well documented, and a myriad of primary, secondary and tertiary strategies have emerged during the past decade in order to help minimise the impact of this occupational hazard (NHS Security Management Services, 2003; 2004; 2005; National Audit Office, 2003; Nursing and Midwifery Council, 2001; Royal College of Psychiatrists, 1998). However, despite the introduction

of a national violence reduction strategy endorsed by the Secretary of State for Health, there is clearly an absence of robust research in order to support the continuance of blanket training all frontline NHS staff in breakaway techniques, despite the continued persistence to do so. Parish (2007) reports that up to 70,000 nursing days are wasted each year by teaching techniques that do not work, which should be a particular concern for the public purse-holder and prompt the health care community to ask the question: is it time to adopt a fresh approach?

National context

The exposure to violence and aggression for nurses in mainstream psychiatric settings is not a new phenomenon, but continues to remain a major focus of attention (Bowers *et al*, 2006). The national NHS Security Management Services (2005) training syllabus for non-physical interventions has attempted to promote a culture for investing in primary prevention strategies (addressing the root causes of violence) and has also emphasised a need to equip clinicians with a range of secondary strategies that aim to de-escalate potential episodes of aggression when they occur. Although managing conflict and de-escalation skills are now considered to be a fundamental part of an essential toolkit, there remains a significant lack of scientific rigour and validation to support those tertiary interventions (what to do when violence occurs) to equip staff to escape physical attack.

Breakaway techniques have been officially defined by the National Institute for Clinical Excellence (2006) as '*a set of physical skills to help separate or breakaway from an aggressor in a safe manner*', but there are no agreed national standards regarding which techniques should or should not be used when in a breakaway situation (Rogers *et al*, 2006).

For many NHS-based prevention and management of violence and aggression (PMVA) trainers, breakaway training has formed part of a legacy dating back to the original importation of techniques from the prison service in the early 1980s. Unfortunately, NHS trainers were unable to share the same benefits as their prison officer counterparts, who had 'Home Office approval', therefore those instructors trained originally within the special hospitals were left to develop their own professional standards of practice and internal accreditation systems.

However, with the obvious increase in wide scale national demand, a competitive commercial market has developed, with many independent training companies seizing an opportunity to advertise and deliver their own brand of breakaway training. This has led to a plethora of instructor programmes, and an inherently flawed pyramidal training system has been allowed to develop by default (Rogers *et al*, 2007). The exact number of NHS and private companies currently offering breakaway training or similar derivatives is currently unknown, however it is clear that there is a significant disparity between the quality, quantity and delivery of such training on a national level (Leather & Zarola, 2006). It has been noted that many courses are still being determined by the preferences of the training provider rather than any real assessment of trainees' need (National Audit Office, 2003).

Historical development

Historically, the official recognition for breakaway training in care settings can be traced back to the guidance issued by the Department of Health and Social Security Advisory Committee on violence to staff (Department of Health and Social Security, 1988), which recommended that staff who were at risk from violence should be trained appropriately, however they did not approve of martial arts-based 'self-defence' courses as they were not considered appropriate in hospital settings. Ironically, breakaway techniques were originally modified from the field of martial arts, but many NHS trainers would routinely emphasise that these were quite simply disengagement techniques in their purest form, and were not to be confused with any other form of martial arts training.

Socio-political influence

Amid the concerns related to abusive practices in care settings over the years, many attempts have been made to protect vulnerable service users from inappropriate and degrading forms of social control and treatment. A number of professional organisations and government supported bodies have attempted to develop best practice guidance and accreditation schemes for physical interventions. (British Institute of Learning Disabilities, 2001; National Institute for Clinical Excellence, 2005; Welsh Assembly Government, 2004; National Institute for Mental Health in England, 2004). In a desperate

attempt to regulate the range of personal protection techniques being taught by NHS and social care trainers, some schemes have expected teachers to sign up to very rigid packages of training that often fail to acknowledge the complexity and psychodynamic nature of violent assaults. While many would agree that accreditation systems may serve as a useful safeguard for service users, a dichotomy exists in that by signing up to such prescriptive programmes, managers and stakeholders may be, unwittingly, denying staff of their lawful right to exercise reasonable force to defend themselves or others. Ironically, staff will ultimately be judged on what was deemed to be a necessary and proportionate physical response, based on what the victim honestly believed to be the facts at that time, (Crown Prosecution Service, 2007) irrespective of what physical disengagement techniques were accredited or endorsed by the employing authority.

Unfortunately, many NHS stakeholders may have been falsely led into believing that breakaway training must somehow be the only acceptable form of personal protection training suitable for NHS staff, which has also been perpetuated by an increase in media propaganda. For example, some training providers openly promote their training business by claiming that they are able to teach students how to '*apply the correct and safest way to defend themselves*', using '*non-injurious and pain free*' techniques that are '*officially recognised*'. As highlighted previously in this paper, there is no official national governing body to recognise, approve or validate physical techniques. If we stop to consider a scenario that involves a serious attack on staff where the perpetrator is strangling their victim, in essence a life-threatening situation, it becomes clear that the level of necessary force required to get away may well be much greater, with a corresponding increase in risk of pain or injury being sustained to the service user. This is a clear example of where a direct conflict exists in relationship with the wider sociocultural expectations of nursing – in particular the ethical principle of non-maleficence, '*to cause no harm*'. However, it should be recognised by employing authorities that although staff are required to balance and exercise their clinical judgement in context with the requirements of current law and professional practice, they will often be responsible for making difficult and complex decisions under

high-threat conditions involving a number of practical dilemmas that are difficult to resolve. It is, therefore, important to acknowledge that during these occasions, allowances should be made for the human biological predisposition to act instinctively when clinicians are faced with a survival situation.

Do breakaway techniques truly reflect the operational training needs for staff that are exposed to violence?

It is interesting to note that there have only been a very few published empirical studies conducted in the UK that have attempted to evaluate the effectiveness of breakaway techniques. However, there is evidence to suggest that a wealth of other unpublished material may exist that could help contribute to the debate (Dawes, 2008).

A study by Parkes (1996) reported that 67% of all assaults in a medium secure unit were associated with a study group being punched and kicked – neither of these situations were covered on the training course. Similar findings were reported by Southcott *et al* (2002) who conducted a qualitative analysis of 346 adverse incidents in an intensive care unit and concluded that out of 85 reported assaults on the unit, there was a higher incidence of staff being punched and kicked as opposed to being assaulted in any other way.

Southcott and Howard (2007) investigated the effectiveness and safety of restraint and breakaway techniques in an intensive care unit over a three-year period and concluded that attempted and contact punches and kicks were the most common form of assault. This replicated similar findings to the previous pilot study. In order to check whether similar findings could be observed in low and medium secure services, the Avon and Wiltshire Mental Health Partnership NHS Trust (2009) conducted an audit in order to examine the profile of assault types over a period of six months. It was interesting to note that out of a total number of 67 reported incidents during this time frame, staff victims were commonly assaulted by being punched on a total number of 27 occasions. A study of assaults on staff over a two and a half year period at the Oxfordshire and Buckinghamshire Mental Health NHS Foundation Trust also concluded that in 47.6% of cases the perpetrator used a punch or slap in the assault (Dobson, 2008).

Wright *et al* (2005) conducted a survey of 2,152 nurses and out of 771 responses it was noted that 73% had been assaulted by a patient at least once, with 11% of staff reporting the use of breakaway techniques every time they were assaulted. 19% reported using breakaway techniques on most occasions, although 41% of staff reported never having used a breakaway technique when assaulted.

Reasons stated for not using a breakaway technique were that 55% of staff attacked had not received prior training, followed by 47% stating that they did not have time to respond or anticipate the attack.

The National Audit of Violence (Royal College of Psychiatrists, 2005) also identified that many staff remained dissatisfied with the timing, content and quality of the training that they received, which should prompt trainers and commissioners to review their training needs analysis to ascertain whether the techniques being taught are truly reflective of an operational need.

A more recent study by Rogers *et al* (2006) audited a sample of 47 staff working in a medium secure unit, whereby the group were asked to participate in a simulated attack under role-play conditions that necessitated the application of one of a number of breakaway techniques. From the entire sample, 60% failed to apply the correct breakaway technique and 40% (19/47) of staff were unable to breakaway from a life-threatening assault during the 10-second period. It is alarming to note that staff could not recall a technique specifically designed to breakaway from a strangle hold and that one of the breakaway instructors failed to execute the correct technique under dynamic simulation conditions. This study should encourage trainers to re-examine the nature of what is currently being taught in context with trying to determine what factors may be responsible for influencing the efficacy, delivery and retention of such skills.

Why does it appear that clinicians are often failing to use breakaway techniques as a tertiary strategy?

It should be understood that human performance that involves any survival skill is a highly complex neurophysiologic function of the human body, which will depend largely on the three primary survival systems of vision, cognitive processing, and motor skill performance

(Grossman, 2002). When the human body is subjected to a sudden attack, shock or surprise, the body experiences a phenomena originally documented by Cannon (1929), as the 'fight or flight' response. However, in recent years, ethologists working with non-human primates have clearly established four distinct fear responses to increasing threat, which include freeze, flight, fight and fright (Bracha, 2004).

This 'hard-wired instinctive response', is thought to be a natural protective mechanism that does not require conscious thought and many modern researchers believe that many of these primal responses to danger, do not involve the cerebrum (the cognitive/thinking portion of the brain) at all (Ledoux, 1998). It has been noted by Breedlove and Siddle (1995) that in this heightened state of arousal the visual system will adjust in order to determine the nature of dangerous stimuli, and a perceptual narrowing will occur, causing peripheral and distance vision to be reduced. These findings would appear to offer a valid explanation as to why some clinicians may be unable to appraise, process and identify a suitable neuromuscular defensive action in a timely manner. It is, therefore, unsurprising that when these perceptual distortions are acute, clinicians may experience difficulty in being able to recall a large number of breakaway techniques that have been taught in the classroom setting. It should also be recognised that the emotional impact of fear itself can evoke a number of other inappropriate or irrational and undesired behavioural responses that may ultimately place staff in more danger.

While the effects of survival stress on human performance have been explored and documented in the law enforcement community (Artwohl & Christensen, 1997; Klinger, 2001; Laur, 1992; Solomon & Horn, 1986), it is evident that the relevance of these findings may have been actually overlooked by NHS trainers. It is interesting to note that landmark research by Grossman and Siddle (2000), who studied the impact of aggression on the release of epinephrine and the influence this has on heart rate, body language, behaviour and communication, offer a very persuasive argument that staff working in high-risk areas should be aware of the biological implications of the fear response and how this is likely to impact on practical and cognitive competence.

The startle response as a protective reflex mechanism

Protective mechanisms are generally considered to be an essential asset for all living animals in order to ensure species survival during high-threat encounters. The startle reflex is considered to be an unconscious emergency response to a sudden or unexpected stimulus and has attracted the attention of many investigators (Davies, 1984; Hillman *et al*, 2005; Koch, 1999; Landis & Hunt, 1939). This primal mammalian reflex has been noted to provoke both a primary and secondary reaction that involves a short latency and highly stereotyped set of movements that bring the body into a generalised defensive stance (Yeomans *et al*, 2002).

The initial phase is generally characterised by the head dropping and the shoulders lifting in an effort to protect the parts of the neck vulnerable to predation. The eyes close temporarily, facial muscles contract and the upper lip raises into a characteristic sneer. The anterior body curves forward, the knees bend, and the arms pull in as if to protect the abdominal region (Granziano & Cooke, 2006). The secondary reaction would then appear to refine the defensive movement and tailors it to the specific location of the stimulus that tends to allow a more flexible defensive movement that involves either ducking away from the threat or raising both arms for self-protection (King *et al*, 1992; Schiff *et al*, 1962). Evidence of this reflexive mechanism can be observed in the wound patterns of those victims subjected to knife attacks at close quarters, with the majority of defensive wounds sustained on the hands and forearms (Fisher *et al*, 2006).

Although many researchers have for some years clearly linked the startle reflex to being part of a protective mechanism, it may be timely for those in the PMVA training community to review whether or not some of these findings can actually provide the platform to help improve the biomechanical efficiency of self-protection techniques.

Deterioration of motor skills

While some studies have attempted to explore the dynamic nature of motor skill performance (Shelton & Mahoney, 1978; Westmoreland, 1989), it was Cratty (1973) who proposed that motor skills should be classified

on a continuum from fine to gross. The evidence would clearly support the notion that gross motor skills that use large muscle mass are cognitively simple (requiring little decision-making) and produce optimum performance during high levels of stress (Siddle, 1995).

If we use Cratty's (1973) classification as a point of reference, it becomes clear that breakaway techniques predominantly involve complex and fine motor skill deployment with only a small number of existing techniques involving gross motor movements as the initial primal response to danger. Interestingly, the authors examined a total number of 52 breakaway techniques, and could only identify a total number of three techniques that relied primarily on gross motor skill deployment. This may help to offer an explanation as to why clinicians are failing to use them as a tertiary strategy when confronted with physical violence.

Furthermore, Garcia (1989) noted that complex motor skills were rarely used when surveying 400 police officers using single-handed batons; instead officers relied predominantly on gross motor reflex skills, while Weinberg *et al* (1979) also observed that individuals tend to revert to their preferred or instinctive mode of behaviour, particularly when performing under high levels of stress. Therefore, the evidence would again challenge the existing rationale for teaching breakaway techniques.

Reaction time

Being able to respond effectively in a survival situation will be largely dependent on being able to react in a timely manner, irrespective of what range of tactics are deployed. However, if staff are taught an excessive number of techniques it is likely that their reaction time will also be delayed as it takes time to load the specific psycho-motor programme following the initial primal response. McGivern (1984) describes a survival reaction time model that was later adapted by Siddle (1995) to explain that the human brain needs time to analyse, evaluate and formulate a suitable strategy before initiating a motor response, which can be achieved in milliseconds. Henry and Rogers (1960) identified that reaction time is increased when: elements are added to the action, more than one limb is co-ordinated, and/or the duration of a skill becomes longer and more complex.

These findings should obviously prompt trainers to analyse the biomechanical complexity of their techniques in relationship to the instinctive protective actions that influence the motor behaviour during an attack. A failure to consider this as an essential prerequisite of technique design may seriously compromise the effectiveness of any protection skill. Although we have considered the effects of response time in relation to being able to initiate a tertiary self-protective skill from a direct threat, Kerstholt (1994) also notes that the selection of a decision strategy in dynamic tasks is less adaptive than is generally concluded from studies with static tasks, which may also account for delays in reaction time. Clinicians are frequently exposed to stressful working conditions and the clinical environment can often be a very unpredictable place, where much uncertainty can exist.

The need to adopt a more scientific approach to self-protection training

The historical approach to providing personal protective skills training to staff in the caring professions has arguably been overly dependent on the expert opinion of trainers and practitioners from a broad spectrum of backgrounds, with a marked absence of underpinning science to support a training methodology. As a result, many breakaway courses remain 'content and reaction based' where students are taught a number of reactionary techniques including how to commonly disengage from arm holds, clothing holds, strangle holds (front and rear), bear hugs (arms trapped and free), hair pulls (from side, top, pony tails) (Taylor, 2000). These approaches are context specific, ie. if the attacker does A, the victim will respond with technique B.

It could be argued that the fundamental flaw with the existing approach is that it does not appear to acknowledge the complex dimensions associated with the actual process and dynamics of what we know about how the body reacts naturally under threat. If, for example, we perceive a sudden attack that involves a blow to the head, the survival stress response will initiate what neuroscientists describe as somatic reflex potentiation, also commonly known as the 'startle circuit' (Byrnes, 2002), which will prompt an unconscious neuromuscular reaction as opposed to a rehearsed set of responses.

By teaching breakaway techniques in such a one-dimensional way, trainers may be unwittingly

conditioning staff to respond to all close physical threat encounters in a set way, leaving them vulnerable to harm, particularly when breakaway techniques are simply not deemed to be an effective strategy for defending against a more determined dynamic attack that involves different assault profiles, for example, striking.

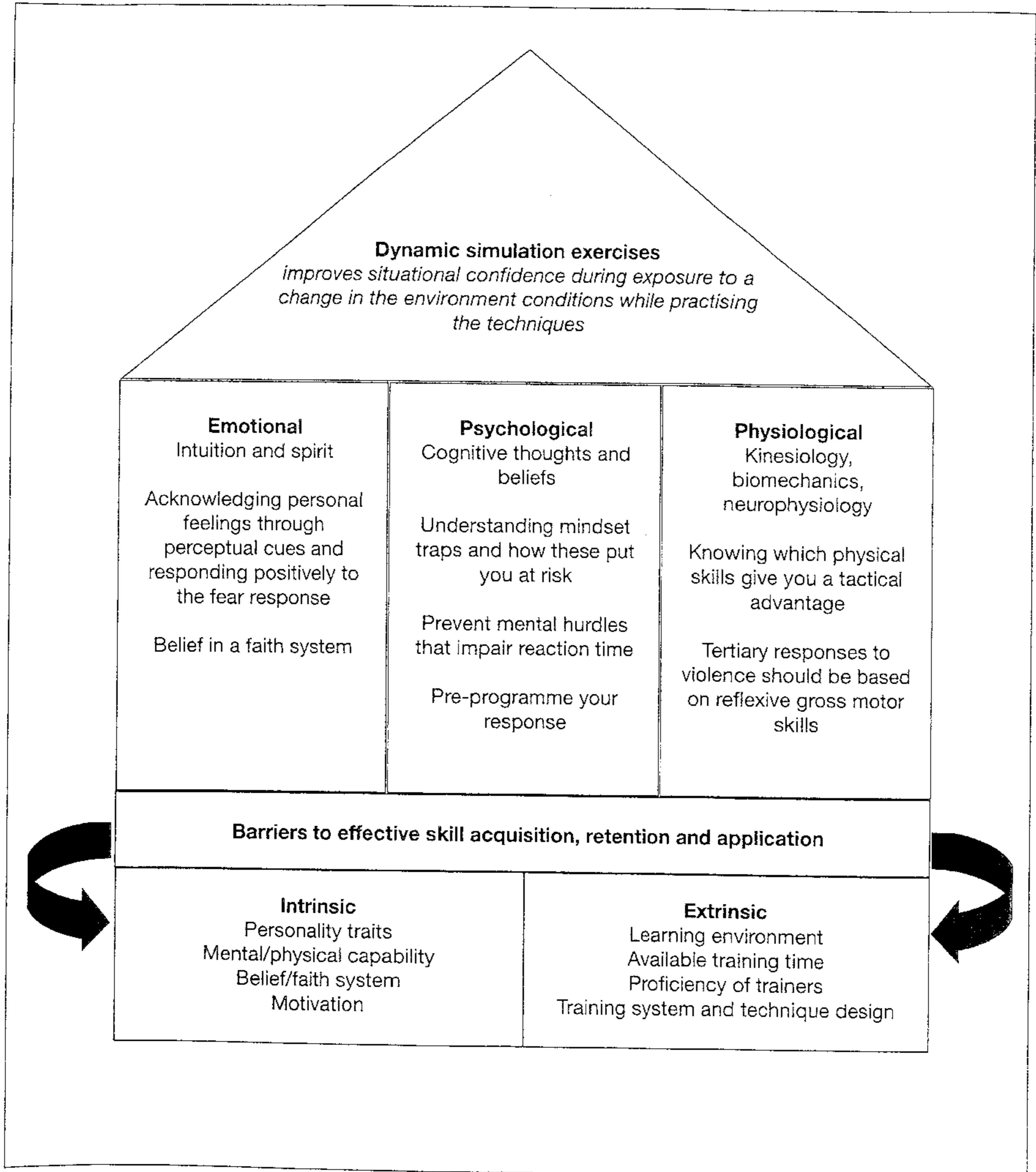
Alarming, this could be placing staff at more risk by teaching skills that are not compatible with 'genetically wired' or 'natural' responses or the realities of the dynamic operational working environment, which in some instances may give staff a false sense of security. As discussed earlier in this paper, violence does not occur in a vacuum, and should prompt a need to invest more time in what Blauer (2009) describes as a three-dimensional approach to training that integrates a more holistic approach, based on the interrelationship of the physiological, psychological and emotional dimensions of a violent encounter, within the context of a changing dynamic environment (see **Figure 1**).

Although there may be some anecdotal evidence to suggest that breakaway techniques do work in some clinical settings, it is clear that clinicians working within high-risk environments may require a more robust repertoire of personal protection skills. While it is not possible to make any absolute conclusions about whether breakaway techniques should be totally abandoned as a tertiary skill in all clinical settings, the training community may have to accept that breakaway techniques may have a much smaller part to play in the future.

Impact of prevention and management of violence and aggression training on service users

The ability to deliver high quality care for vulnerable service users that exhibit violent propensities will invariably be determined by many complex factors. However, effective care that promotes recovery can only be supported by clinicians who have the necessary skills and confidence to engage in meaningful relationships within the context of a therapeutic milieu. Due to the dearth of existing evidence, it is difficult to draw any firm conclusions as to whether breakaway training in itself actually has any real impact on staff confidence, performance and clinical effectiveness.

Figure 1: Proposed training paradigm adapted from Blauer (2009)



However, the correlation between the survival stress response and clinical performance cannot be ignored and the authors would suggest that all self-protection training should be underpinned by a 'fear management' component that aims to help staff to function more effectively when facing danger. It is proposed that the prevention and therapeutic management of service user violence may well actually be determined more by how staff respond to their own emotional fear response, as opposed to the nature and range of complex physical disengagement tactics that they may have been historically taught.

Future development

In order to help shape a contemporary syllabus for health and social care staff in the future, trainers need to remain aware of their legal, moral, ethical and professional responsibilities to ensure that safety training reflects the true nature of operational clinical need, which can be identified and measured through the actual reporting and accurate auditing of violent incidents. When this has been achieved, the existing literature would certainly prompt the PMVA training community to consider the development of a training system that is based on the following set of underpinning principles.

1. Biomechanical motor movements during the primal reflex will impact on human defensive behaviour and, hence, should inform the core development of protective techniques.
2. Emerging research strongly suggests that human beings may have an ideal survival heart rate that impacts on human performance when confronted by a significant threat. Threat/stress management skills should feature in training programmes.
3. Technique design should be based on gross motor skills.
4. Using a holistic approach in training should place emphasis on the impact and interrelationship of the physiological, emotional and psychological domains.
5. Dynamic simulation in the training programme is likely to help students develop situational confidence in a set of changing conditions that aim to replicate clinical conditions.

If we are to make any real progress in the future, it is vital that researchers and trainers consider the pioneering developments that have already taken place

in the allied professions during the past decade and to consider what applicable lessons can be learned from the history and development of their training systems. It is worthy of mention that the police services in the UK have successfully integrated a pioneering approach into their officer safety training programme, known as the spontaneous protection enabling accelerated response (SPEAR) system (Central Police Training and Development Authority, 2006), which is a holistic, behavioural and genetically inspired approach that has been independently researched and evaluated (Peebles, 2006).

This is just one such example of exemplary practice that has proved to be successful and should be a catalyst for the NHS and social care community to embark in an open dialogue and debate, in order to seek out a training programme that is based on the available science and not merely personal choice.

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