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An Independent Review and Assessment of Risks Associated With the Physical Interventions Contained within all CPI Training Programs

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Personal Statement/Assessor Qualifications, Expertise and Experience

I am a qualified physiotherapist and currently work as a Lecturer in Physiotherapy at Keele University. In a previous role I trained as a CPI Certified Instructor delivering training in Mental Health Services in the UK and as such have a special research interest in the safety aspects of physical interventions. This interest and area of practice led to my membership in the Restraint Advisory Board (RAB) for the UK Ministry of Justice (MoJ) and Youth Justice Board (YJB) from 2010 to 2012 with specific responsibility to providing advice on the physiological and anatomical safety of the physical techniques used in the secure estate training syllabus. As a result of this, I became a member of the Independent Restraint Advisory Panel (IRAP) within the MoJ as well as a member of YJB Serious Injuries and Warning Signs sub-committee (SIWS) with the responsibility of reviewing restraint incidents which cause adverse outcomes to individuals within the YJB secure estate. I have published peer-reviewed articles on the safety of physical interventions related to factors which are likely to increase or decrease adverse restraint-related outcomes (see bibliography).

I was a guideline writing member for the most recent NICE guidance (NG10) published in 2015, a visiting lecturer on the CPI BSc in Restraint Reduction at Wolverhampton University, and in 2021, an advisor to the YJB on the review of pain-based restraint techniques in the secure estate.

Conflicts of Interest

I have undertaken the role of independent risk assessor to CPI since 2012 and jointly published research with Chris Stirling (CPI Senior Vice President). I am not a paid employee of CPI, I am not paid to promote CPI, and I have not received any financial incentives or funding for my research from either CPI or Keele University.

Signed: RJBarnett

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Assessment Moderation Panel

The assessment decision and conclusions in this report were independently moderated by the following people:

Dr Kevin Huckshorn
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The panel represents an international team of subject matter experts who reviewed the physicals and risk ratings provided in the risk assessment as secondary independent oversight. They received no monetary compensation for this role.

1. INTRODUCTION

1.1 In 2012, the Crisis Prevention Institute (CPI) commissioned an independent risk assessment of the physical skills curriculum contained within their global training programs. This assessment was initially undertaken by Professor James Ryan (Professor of Trauma Medicine at St George's Hospital, London) and has subsequently been repeated every three years as part of CPI's commitment to continuous improvement.

1.2 This assessment provides a baseline risk rating for the application of each CPI holding principle. CPI principles are based on a robust understanding of human anatomy and physiology.

1.3 The risk ratings that have been assessed are based on the foreseeable likely adverse outcome associated with the application of each principle. The ratings take account of:

- 1.3.1 Psychosocial impact (the combined influence of psychological, social, and environmental factors and that impact on a person's physical and mental well-being).
- 1.3.2 Soft-tissue injury (injury to skin, underlying soft tissue, muscle, ligaments, and tendons).
- 1.3.3 Articular or bony injury (injury to joints and bones).
- 1.3.4 Respiratory impact (impact to any aspects of the respiratory triangle: airway, bellows mechanism, and gas exchange, incorporating the **A** and the **B** of the **ABC** system used in Trauma Life Support).
- 1.3.5 Cardiovascular impact (impact to the heart and circulatory system, incorporating the **C** of the **ABC** system).

1.4 Risk ratings were determined by comparing the variables of likelihood (defined as the probability that something may occur) and the severity of the consequence (defined as the reasonable level of injury, illness, or disability that might arise from the occurrence). Using the NPSA 5 x 5 Risk Matrix, the risk rating follows a continuum of risk at four levels:

- 1.4.1 Low risk (those interventions which could lead to a non-permanent minor injury or illness).
- 1.4.2 Medium risk (those interventions which could lead to a non-permanent moderate injury or illness).
- 1.4.3 High risk (those interventions which could lead to major injury or long-term incapacity or disability).
- 1.4.4 Extreme risk (those interventions which could lead to death or irreversible health effects).

2. CONSIDERATIONS

2.1 Although risk ratings do not exceed medium, the following considerations should inform the application of holding principles, ensuring any adverse outcomes associated with the use of physical interventions are minimized:

- 2.1.1 The risk assessment has been undertaken in a classroom environment. Therefore, in an operational environment, the risk ratings may vary from the risk stated due to situational circumstances.
- 2.1.2 The assessment only considers the likely psychosocial, anatomical, physiological risks that might be reasonably considered when physical interventions are used on an individual who is healthy and does not have any known conditions, disabilities, or illnesses which may increase the risk. Workplace application must include further assessments that take account of those factors which will invariably increase the risk rating to individuals.
- 2.1.3 Given the above assessment limitations, a risk assessment for individuals likely to be subject to physical interventions should be completed prior to any intervention. Where prior risk assessment is not possible, a risk assessment should be completed immediately after an intervention to plan for future occurrences.
- 2.1.4 The risk assessment does not remove any duty of care owed by staff during an intervention. Staff should continually assess the person being restrained and respond to identified risks as they arise and take appropriate remedial action(s).

2.1.5 The risk assessment does not take account of any impaired decision making that may be made by those performing physical restraint during a real incident. The risk rating will likely be elevated in situations where staff deviate from the taught CPI classroom models and the application of the CPI principles.

3. RISK MATRIX ASSESSMENT VARIABLES

3.1 The methodology used in determining the risk ratings for the application of the anatomical and physiological principles was determined using a 5 x 5 risk matrix adapted from the NPSA (2008) risk assessment tool. The figures below provide descriptors for the risk variables (likelihood and consequence) as well as the overall risk rating matrix, with a color-coding system for easy reference (see figures 1, 2, and 3 below).

Figure 1 — Overall Risk Rating Matrix

LIKELIHOOD RATING	CONSEQUENCE				
	(a) Negligible	(b) Minor	(c) Moderate	(d) Major	(e) Catastrophic
1. Rare	(G)	(G)	(G)	(Y)	(Y)
2. Unlikely	(G)	(Y)	(Y)	(O)	(O)
3. Possible	(G)	(Y)	(O)	(O)	(R)
4. Likely	(Y)	(O)	(O)	(R)	(R)
5. Certain	(Y)	(O)	(R)	(R)	(R)

OVERALL RISK RATING GUIDE (Color code)			
Green (G)	Yellow (Y)	Orange (O)	Red (R)
Low Risk	Medium Risk	High Risk	Extreme Risk

Figure 2 — LIKELIHOOD Descriptors

Label	Descriptor
1. Rare	Will probably never happen
2. Unlikely	It is not expected to happen/recur, but it could
3. Possible	Might happen or recur occasionally
4. Likely	Will probably happen/recur, but it is not a persisting issue
5. Certain	Will undoubtedly happen/recur, possibly frequently

Figure 3 — CONSEQUENCE Descriptors

Label	Descriptor
(a) Negligible	Minimal injury requiring no/minor intervention or treatment
(b) Minor	Non-permanent minor injury or illness
(c) Moderate	Non-permanent moderate injury or illness
(d) Major	Major injury or long-term incapacity/disability
(e) Catastrophic	Incident leading to death or irreversible health effects

4. RISK ASSESSMENT FOR HOLDING

4.1 The following tables summarize the baseline risk ratings for the CPI physical skills curriculum (holding) for individuals subject to physical interventions and the risk rating for staff carrying out the interventions. Control measures are listed to guide further decision making to mitigate risks when using physical interventions in real-world situations.

Table 1: Risk Rating for Foundation Holding Skills

Risk Parameter	Section 1: Application Risks to Service User						Section 2: Application Risks to Staff				
	Psychosocial	Soft-tissue	Articular or bony	Respiratory (AB)	Cardiovascular (C)		Psychosocial	Soft-tissue	Articular or bony	Respiratory (AB)	Cardiovascular (C)
Application of the CPI Anatomical Principles Outside/Inside, Limit the Range of Motion											
Range: Low, Medium, and High Levels of Restriction in a Seated Position											
Low	3b	1a	1a	1a	1a		2a	1a	1a	1a	1a
Medium	3b	1a	1a	1a	1a		2a	1a	1a	1a	1a
High	3b	2a	2a	1a	1a		2a	1a	1a	1a	1a
Range: Low, Medium, and High Levels of Restriction in a Standing Position											
Low	3b	1a	1a	1a	1a		2a	1a	1a	1a	1a
Medium	3b	1a	1a	1a	1a		2a	1a	1a	1a	1a
High	3b	3b	3b	1a	1a		2a	2b	2b	1a	1a

Table 2: Risk Rating for Foundation Holding Skills (Children Only)

Risk Parameter	Section 1: Application Risks to Service User						Section 2: Application Risks to Staff				
	Psychosocial	Soft-tissue	Articular or bony	Respiratory (AB)	Cardiovascular (C)		Psychosocial	Soft-tissue	Articular or bony	Respiratory (AB)	Cardiovascular (C)
Application of the CPI Anatomical Principles Outside/Inside, Limit the Range of Motion											
Range: Low, Medium, and High Levels of Restriction in a Seated Position											
Low	3b	1a	1a	1a	1a		2a	1a	1a	1a	1a
Medium	3b	2b	2b	1a	1a		2a	1a	1a	1a	1a
High	3b	3b	3b	2b	1a		2a	1a	1a	1a	1a
Range: Low, Medium, and High Levels of Restriction in a Standing Position											
Low	3b	1a	1a	1a	1a		2a	1a	1a	1a	1a
Medium	3b	2b	2b	1a	1a		2a	1a	1a	1a	1a
High	3b	3b	3b	2b	2a		2a	1a	1a	1a	1a

Control Measures

- Holding skills should only be taught and used in settings where the organization has provided explicit authorization and approval for use, underpinned by clear guidance in relation to the recording and reporting of such interventions.
- Holding must be a last-resort, reasonable, proportionate, and least restrictive response to risk behavior balanced with the potential degree of harm that might occur to the individual should holding be used.
- Where reasonably practicable, an individual risk assessment should be completed for each person who is likely to be subject to holding so that specific interventions can be agreed based on any additional factors that may increase the risk.
- Consider known individual factors which may increase the risks to the person, requiring staff to moderate their response to minimize harm. These factors include but are not limited to the person's age; gender identity; ethnicity; physical well-being; physical disabilities/limitations; cognitive disabilities; psychological well-being, including mental health, history of trauma, and/or phobias; communication impairments; social and cultural factors; alcohol and substance misuse (see Risks of Restraints section in CPI training materials for more information).
- During an intervention, staff must continue to make an ongoing dynamic risk assessment based on the person's behavior (their level of intent and their potential to cause harm) and any observable anatomical, physiological, or psychological factors which may increase the risk. As a result of this assessment, staff must make reasonable adjustments, which may include ending the intervention, to maximize safety and minimize harm to everyone involved.

- Holding must not be prolonged. (Note: See Risks of Restraints section in CPI training materials.)
- If holding becomes prolonged, the intervention should cease. However, if the circumstances mean it is not possible to end the restraint due to the imminent or immediate risk of harm to self or others, consideration must be given to the use of alternative interventions as soon as is reasonably practicable.
- During an intervention, one person must act in the role of the team leader to monitor the safety and welfare of all those involved.
- While holding, do not excessively flex the upper body (i.e., bend the person forward) as the greater the forward flexion in the upper body, the greater the likelihood of respiratory compromise.
- Avoid holding people on the floor unless there is no alternative and only when it is necessary to maximize safety and minimize harm to everyone. If you have no alternative, you should be trained and assessed as competent to use the CPI principles for floor holding.
- While holding, do not apply weight/pressure to person's neck, chest, back, or abdomen, and never obstruct the airway.
- While holding, do not compromise the person's ability to communicate (e.g., do not cover eyes, nose, mouth, or ears).
- Staff trained in CPI holding skills should also be trained in an appropriate level of emergency first aid. Should any member of staff become concerned about the safety and welfare of the individual or staff during an intervention, the term "medical emergency" should be used as a cue for everyone to immediately cease the intervention to provide the necessary emergency first aid if required.

The following documents were used to inform this risk appraisal:

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