Towards trauma-informed radiography

The potential of trauma-informed work has yet to be realised within radiography. This article introduces the Radiography readership to the trauma-informed paradigm. Although there is growing awareness and enthusiasm for trauma-informed approaches in healthcare, empirical research to support its translation into radiography is limited (1, 2). It is the authors' hope that raising this topic will increase critical engagement with the potential of trauma-informed frameworks and stimulate elaboration of the relevance and scope of trauma-informed practice in research, clinical and education spaces. We urge reflexive work on this topic to prevent superficial adoption within radiography.

Although definitions of trauma vary, it is recognized that experiences of trauma are widespread and can have significant effects for individuals and communities . Broadly, trauma is understood as an individual's response to an event which is experienced as emotionally or physically harmful or life-threatening and which has lasting impacts on their mental, spiritual, social, emotional and physical wellbeing(3). An estimated 70% of people globally will experience a potentially traumatic event during the course of their life(4). Although most do not go on to develop post-traumatic stress disorder (PTSD), some people continue to experience adverse mental health including depressive, anxiety and substance use disorders(4, 5). Moreover, trauma has long-term effects on physical health: the CDC-Kaiser Adverse Childhood Experience study in the United States (US) has shown a strong graded correlation between the breadth of trauma exposure and increased risk for poor future health and chronic disease (including addiction, sexually transmitted diseases, heart disease, cancer) and may necessitate frequent interactions with healthcare

whilst at the same time compromising a person's ability to engage with care and treatment (6, 7).

Individuals living with ongoing effects of trauma can be particularly vulnerable within healthcare settings and may become distressed, overwhelmed or retraumatised by routine healthcare procedures and investigations (7). In the context of radiography for example, service users may fear screening programs, diagnostics, and treatment, making it challenging to comply with investigations and treatment regimens. Radiographic imaging investigations and radiotherapy treatment can entail intimate exposure of the body, feelings of powerlessness, vulnerability, shame, immobilisation, confined environments, death anxiety and adverse treatment effects. The interpersonal dynamics between healthcare staff and service users during procedures may also mimic dynamics of abuse (being told to lie still) or feeling restrained(7). Re-experiencing traumatic memories can set off a 'cascade' of negative effects that may constrain an individual's sense of autonomy, choice and control within healthcare settings(1, 2, 7, 8).

Trauma can also be experienced by staff: directly through personal experiences, or through secondary and vicarious exposure to distressing and traumatic events in the course of their work (7). Whilst such experiences may constitute harm in their own right, they may also prevent professionals from being able to deliver trauma-informed care(7). Moreover, there is work to be done to ensure that the educational environments in which we study are psychologically safe learning spaces, and a need for greater recognition and support for researchers who may experience vicarious trauma whilst conducting research (9, 10). This is often associated with

qualitative investigations, but researchers working in quantitative fields, or with non-human subjects might also feel distress in the course of research(9, 10).

As organisations have realised the scale and impact of trauma, there has also been greater recognition of *retraumatisation* that sometimes occurs in services which lack trauma sensitivity(11-13). It may be challenging for healthcare providers to identify environmental factors which contribute to distress, as these become less visible when incorporated into the routine of everyday practice. Services which lack trauma sensitivity can compromise patient care, leading to poorer engagement with healthcare (e.g. non-adherence to treatment/follow-up care) and may contribute to poorer outcomes/wellbeing(14).

In response, there has been a turn towards ‘trauma-informed’ practice as services work towards finding ways of supporting vulnerable people to engage with services(15). Much of this work has been popularised through public health/preventative approaches, and implemented in settings where behavioral change forms a part of the support delivered by a service (e.g. addiction and mental health support)(3). Many of the trauma-informed approaches in these spaces place emphasis on awareness-raising and education as primary prevention and promote the use of trauma-informed principles to audit and improve services to reduce the risk of (re)traumatisation in services. References to trauma-informed principles to guide organisations overwhelmingly quote SAMHSA’s 6 principles: Safety; Trust and Transparency; Peer Support; Collaboration and Mutuality; Empowerment, Voice and Choice; Cultural, Historical and Gender Issues (box 1)(3). These principles were developed by SAMHSA, an agency within the US Department of Health and Human

Services which works to reduce the impact of substance use and mental illness on communities. It has become a dominant template for trauma-informed approaches, guided by SAMHSA's 10 implementation domains(3).

Although these approaches and principles have been extrapolated out to other contexts such as criminal justice and education, their translation into health settings is more challenging. Where the goals of a service are about the delivery of treatment or investigations for physical health, urgent needs for immediate care and treatment often take priority over slower, more careful interactions. Within literatures and guidance it is often unclear whether recommendations for practice come from empirical research and co-designed work, or whether they reflect good intentions for hypothetical cases, with a greater focus on interpersonal dynamics whilst overlooking social contexts and environments. A thematic review of trauma-informed care in medical imaging and radiation therapy identified interpersonal adaptations for staff such as practicing ongoing informed consent, explaining procedures clearly and employing grounding techniques(1). These interventions are considered central to developing sensitive practice, yet the review concludes that policies and procedures should be developed to solidify these practices(1). A recent scoping review on trauma-informed care in medical imaging identified minimal literature on this topic with a clear need for further research(2). Whilst the review was able to develop ten best practice recommendations, these were largely inferred from patient-centred care literature. Examples of best practice recommendations include "limit exposing the patient's body" and "giving patients control of their examination" to offering service-users a "cup of tea" (2). Whilst some of the above recommendations have clear relevance for trauma-informed care, there is a risk that **any** well-intentioned example

of ‘good practice’ becomes badged as ‘trauma-informed’: creating safe and welcoming environments should be the norm, although patient accounts sometimes suggest these aspects of care are lacking (16, 17). Extending the label of trauma-informed practice to include the minutiae of standard care makes defining the core components of a trauma-informed service challenging, and developing accountability structures, policies and evaluation even more so (13, 16, 17). Without a thorough interrogation of appropriateness to a service and tailoring of approaches specific to radiographic settings, there is a risk that adoption of these frameworks becomes tokenistic and unsustainable (18), reliant upon the good will of staff, without addressing need for systemic changes within services.

Beyond primary prevention strategies for trauma, there are several trauma-specific interventions for use as secondary and tertiary prevention. Such interventions consider what efforts can be made immediately after a traumatic experience to reduce the immediate and short-term consequences, and interventions to treat and reduce the long-term impacts of traumatic experiences(5). Examples of such interventions include trauma-focused cognitive behavioural therapy (TS-CBT), Eye Movement Desensitisation and Reprocessing (EMDR) or Dialectical Behaviour Therapy (DBT) (19). These seek to treat trauma-related symptoms and are distinct from trauma-informed approaches.

Many programs that promote trauma-informed practice to support vulnerable clients identify the development of individual resilience and coping strategies as key to helping individuals to ‘self-regulate’ in challenging circumstances(1). Whilst such strategies are an important part of managing during difficult times, they cannot be the only or the main response. There is a greater need for approaches which negotiate

with context, environments, power and social change to rework organisational systems, services and professional practices that may contribute to experiences of harm(20).

The trauma-informed paradigm has been criticized as providing rhetorical cover that suggests reform to services when it is less obvious and measurable how trauma-informed principles become manifested(18), exemplifying the risk of trauma-informed work becoming a performative or symbolic gesture. Trauma-informed practice in radiography therefore requires criticality and thoughtfully tailored work, specific to individual contexts, in order to realise its benefits.

Box.1 Six Key Principles of a Trauma-Informed Approach (3)

Six Key Principles of a Trauma-Informed Approach *(adapted from SAMHSA, 2014: 10(3))*	
Safety	The organisation provides an environment which feels physically and psychologically safe to both staff and service users. Interpersonal interactions promote a feeling of safety, as defined by those that the service serves as a priority.
Trustworthiness and Transparency	The operations and decision-making of the organisation are conducted with transparency, so that trust can be developed and maintained across all those involved in the organisation (service users,, their family and staff members).
Peer Support	Peers are defined as those with lived experience of trauma. Peer support is viewed as key to developing trust and feelings of hope and safety. Peer support is said to encourage

	collaboration and the sharing of stories and lived experience to promote recovery and healing.
Collaboration and Mutuality	Emphasis is placed on *levelling* the power differences across all members of the organisation, alongside a recognition that everyone has a role to play in trauma-informed approaches. This is said to involve the *meaningful* sharing of power and decision-making, and a recognition that recovery from trauma happens through relationships.
Empowerment, Voice and Choice	The organisation recognises the significance of power differences and historical experiences of disempowerment (for example, through suppressing patient voice and choice, or through coercive treatment). The organisation identifies and develops an individuals' strengths, nurtures a belief in resilience, and the ability of all actors (service users, staff, communities) to promote healing and recovery from trauma. Service users are supported to develop self-advocacy skills, and to participate in shared decision-making, and choice and goal setting to develop a plan that facilitates healing. Staff are empowered by organisational support.
Cultural, Historical and Gender Issues	The organisation "actively moves past cultural stereotypes and biases", provides access to *gender responsive services,* appreciates the "healing value of traditional cultural

	connections" and implements policies and procedures which are responsive to racial, ethnic and cultural needs of service users, and recognises and responds to historical trauma.

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