Podcast Transcript

Online Professional Development for Mental Health Practitioners

Trauma & Resilience: Trauma, a History

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Host (00:01):

Hi there. Welcome to Mental Health Professionals Network podcast series. MHPN's aim is to promote and celebrate interdisciplinary collaborative mental health care.

Professor Mark Creamer (00:16):

In recent years, we've seen an explosion in awareness of the mental health effects of life-threatening and other extremely distressing experiences, not just on the part of health professionals, but also the media and the general public. Whenever some kind of traumatic event or disaster is covered on the television news, the reporter will say something like "and survivors are now receiving counselling", and we can easily forget that this is a massive change from 20 or 30 years ago. But how much do we really know about the psychological impact of trauma, and what have we learnt over the last 20 years or so? My name's Mark Creamer, and in this series of three podcasts, I'll be looking at just a few aspects of this complex but intriguing area. I'll be talking to experts from Australia and overseas to try and shed some light on these difficult questions. In the next couple of episodes, we'll be looking at the kinds of mental health problems that people might develop, and we'll be exploring the idea of resilience.

(01:15):

But in this episode, we're going to look at the history, the way in which our understanding of traumatic stress has evolved over the years. We'll explore the nature of trauma. What are the characteristics of the kinds of incidents that can have such profound effects? And we're going to try and get some insight into the mechanisms involved. Why do these experiences often have these mental health impacts?

Joining me to explore the issues raised in this episode are two of Australia's leading clinical researchers in the trauma field. Sandy McFarlane is professor of Psychiatry at the University of Adelaide, and Meaghan O'Donnell is a professor with Phoenix Australia Centre for Post-Traumatic Mental Health at the University of Melbourne. Now, I'd like to spend the first part of this episode discussing the history of the field of traumatic stress, and there is no better person to do that with than Sandy McFarlane. So Sandy, we can go back thousands of years to the writings of the ancient Greeks and Romans, and we can see quite good descriptions of what we understand as traumatic stress. But, I'm really interested in how and when health professionals first started to acknowledge these issues.

Professor Alexander McFarlane (02:26):

Well, I think you raised a really fascinating part about this and that is that in fact, writers have characterised and described these issues. I mean, Shakespeare particularly, actually interestingly in Macbeth, I think as well as in Henry IV, gives very clear descriptions as what we would see as being post-traumatic stress disorder. But the intriguing thing was that it wasn't of interest to medical science. And again, in World War I, many of the Great War poets and people like Robert Graves, Siegfried Sassoon, Erich Maria Remarque, who wrote All Quiet on the Western Front, gave wonderful descriptions about the impact of battle on the mind, and its long-term consequences, but they weren't really grasped by the majority of the medical profession.

Professor Mark Creamer (03:21):

Yeah, yeah. Okay. So, why did it take so long for health professionals to acknowledge these issues?

Professor Alexander McFarlane (03:26):

It's a very interesting question, and I think trying to understand why it was so late to be included in the Diagnostic and Statistical Manuals is an intriguing question. And, I think there are two historical issues of particular importance. Look, I think the first one is, and I think we often forget that until the introduction, I think probably particularly of anaesthesia, but as well, there were many other major advances in medicine in the 19th century, the idea of empathy in doctor patient relationships really wasn't really part of people's thinking. I think it's worth contemplating what it must have been like having a limb amputated without anaesthetic. First of all, how would you do that as a doctor? But equally, what it must have been like as a patient. And I think, having some sensitivity to the patient's mental state really wasn't part of thinking of the time.

Professor Mark Creamer (04:29):

And I guess that, to the extent that it was part of people's thinking, it tended to be viewed very pejoratively, with ideas of cowardice and lack of moral fibre. But of course, I suppose in World War I, well, I know in the American Civil War we had a couple of things like soldier's heart and so on, but by World War I, at least a few people were acknowledging shell shock as a construct, albeit it might be a bit misguided, but were they in a minority, do you think, the people who did acknowledge the existence of shell shock, or was it widely accepted?

Professor Alexander McFarlane (05:03):

I think they accepted their acute combat stress reactions. What they believed was, once the war was over and done with, the problem would disappear. This was seen to be something that had an acute effect on people's mental states, but not long-term consequence. The intriguing issue was, that with the passage of time, the number of pensions for psychological injuries increased, but that was blamed on the compensation system and secondary gain, rather than really believing that this was some long term consequence of traumatic exposure, and very much was influenced by the Freudian view that your psychopathology was a consequence of early developmental trauma. And there wasn't really room for a model about how severe stress in adulthood could cause psychiatric illness.

Professor Mark Creamer (05:57):

And I liked your comment earlier, your implied comment, about the fact that we kind of almost kept it and having to reinvent it. So, after World War I, of course, World War II, I don't think we did a great job either. But then Vietnam, by the time Vietnam came combat psychiatry was much more developed, wasn't it? A greater awareness in, well, what the Vietnamese called the American War, of course, but we'll call the Vietnam War.

Professor Alexander McFarlane (06:22):

Well, the interesting thing is, the first year of World War II was relearning the lessons of World War I. After World War II, exactly the same mistakes were made again, it was seen to be as a consequence of inadequate personality. But forward psychiatry was really entrenched very much in the military medical systems by the time of the Korean and the Vietnam War. And the fascinating issue, they believed also by limiting the tours of duty to a year, because in World War II, they had begun to observe the consequence of the duration of battle and the increased number of casualties. So, if they limited it to a year's tour of duty and had active forward psychiatry, there wouldn't be any long-term psychological injuries.

Professor Mark Creamer (07:07):

How wrong can you be, eh? But still, at least they were trying, I suppose. Before we come a bit more up to date, I just want to make the point clearly that although we obviously learnt a lot of what we know from military populations and from repeated conflicts, but of course, as you implied earlier or said earlier, there was also a recognition about other potential traumatic events like fires, or transport accidents, or whatever. And even the use of trauma specific labels, wasn't there, like rape trauma syndrome, or concentration camp syndrome or so on, although the understanding might have come from military, it's actually much, much broader than that.

Professor Alexander McFarlane (07:46):

Well, and I think that's a very important issue, because there were a group of predominantly psychiatrists and psychologists who came out of World War II and started the life events research field, which really looked at the role of stress more generally. But again, they focused on the concepts of crisis intervention, which really came out of forward psychiatry. The grief therapy came out of military psychiatry, but there were two very important other groups. The first one was the victimology movement, and I think we've forgotten about them a little these days. But victims of crime were a group who really felt they were being dealt with very poorly by the criminal justice system. And the second

group were women, particularly who'd been the victims of sexual violence. And they really very much came together with the Vietnam veterans who felt completely and utterly ostracised in America by the veterans system. The other really interesting group were the concentration camp victims survivors, because there was a compensation scheme in Germany. But again, this was very much put down to predisposition.

Professor Mark Creamer (09:02):

The outcome of all that being that finally, in 1980, we saw the advent of DSM-III, and we saw the diagnosis of post-traumatic stress disorder or PTSD being recognised formally for the first time. And I guess given everything you've been saying, really this was a huge step forward, wasn't it? Well, certainly in moving away from the idea that this is all about cowardice or lack of moral fibre or anything like that.

Professor Alexander McFarlane (09:30):

It certainly did. And it said that there were long-term consequences of trauma exposure, and there was a specific syndrome associated with that. So, this trauma wasn't just something, as had been in the case in DSM-I and DSM-II, which was about acute stress reactions. And I think this was a very, very important step forward. And I think one of the other things that people forget about DSM-III, it was really the point when psychiatry rejected psychoanalysis as its major paradigm, it removed the term neurosis, and very much moved towards structured diagnostic interviews, which had come out of the research diagnostic criteria.

Professor Mark Creamer (10:11):

It's an interesting point, because I was going to say actually of course, that it really was that formal recognition that almost legitimised an area of research. And as a result of that, then we saw an explosion in research over the eighties and nineties, and to where we are today. So, I'd like to bring Meaghan O'Donnell in here and move the discussion on a bit, to look at what we mean when we describe something as a traumatic event. There's a bit of debate about what constitutes a traumatic event, about whether there's something qualitatively different about them, or are they just one end of a severity continuum of stressful life events. Do you have a view on that, Meaghan?

Dr Meaghan O'Donnell (10:54):

Look, as you say, it's a debate in the literature that's been going on for a long time. And as you know, the DSM-5, which defines PTSD, has really been very specific about what constitutes a traumatic event. And then our other diagnostic system, which is ICD-11, they've gone completely the other direction and not imposed any definition on what constitutes a traumatic event. So, we've kind of got our diagnostic systems taking very different views. If we think about DSM-5 and what constitutes a traumatic event from that perspective, it's really that a person's exposed to death, or threat of death, or a serious injury, so it is very much that the person feels very much in danger, and there's a fear response associated with that.

Professor Mark Creamer (12:05):

Yeah. So, what do you think, Sandy? Do you think that there is something different about these experiences?

Professor Alexander McFarlane (12:11):

I think what's different about traumatic events is that these are events that I think involve speechless terror, horror, fear, extreme disgust, emotions that I think really overpower the capacity of the brain to integrate the smells, the sounds, the sights, the emotions, the reactions.

Professor Mark Creamer (12:38):

Yeah. So, it's about being overwhelmed. It's often driven by fear, but we also have exposure to the death or suffering of others, don't we, that will also qualify as a traumatic event?

Dr Meaghan O'Donnell (12:53):

Yeah, that's right. And especially now with DSM-5, we see the indirect exposure to aversive trauma, such as what you see first responders, medical people who, through their workplace, are exposed to trauma. And that, for the first time really, has priority in our criterion A definition for PTSD.

Professor Mark Creamer (13:21):

Yes. But I do still wonder about the idea of a continuum of event severity, and where other stressful life events, I guess, for example, losing your job or divorce, these serious life events might sit, because we know that these things can certainly contribute to depression. I dunno, what do you think, Sandy?

Professor Alexander McFarlane (13:43):

Well, divorce. Divorce can be extremely painful, but it's not something that has some critical moment that overwhelms the brain and overwhelms the individual. And, I think one of the really very convincing issues is that life events research showed that the events such as losing your home, or the breakdown of a relationship, have an effect on health for about six months. These events of the other type, that we call traumatic events, have an enduring impact, and that has a lifelong effect. And I think one of the other core aspects of traumatic events, the way in which they are laid down in memory and the quality of that memory, which has many sort of visceral and some of the sensory aspects to it, which is very different from the sort of rumination that somebody might have about the loss of a home or a divorce.

Dr Meaghan O'Donnell (14:41):

Yeah, absolutely. And what I tend to do clinically is in my questioning, what I'm looking for is, do they have a fear-based of an event or, in the case of say, bullying, are they presenting with a more ruminative experience, where they're going back and they keep going back over and over and over their experience, but it's more based in rumination as opposed to a fear memory. And that just helps with a differential diagnosis.

Professor Mark Creamer (15:14):

Because it's more likely to be depression probably, isn't it? If there's lots of rumination?

Dr Meaghan O'Donnell (15:19):

That's right. Or you might see worrying. And so this is like future-based worry, and that again, looks anxious, and it could look like PTSD, but it's in fact probably another anxiety disorder. And I guess what I'm looking for, if someone's presenting, and I'm kind of teasing out this kind of fear memory, and what I'm trying to look for there is, is this memory of something that's happened in the past, is it intrusive? Does it break into their everyday life? Is it associated with high physiological arousal? So, it's distressing. They're experiencing that event as if it was happening in the here and now. And importantly, are there beliefs that are associated with that memory, and things about the world being dangerous, or the self being incompetent or unable to protect themselves? And those kinds of characteristics are also useful in that kind of differential diagnosis.

Professor Mark Creamer (16:21):

I'm interested in what it is about the event that makes it likely to cause a psychic injury, as it were. And I guess part of it is, what you were sort of alluding to before, is that it kind of challenges some of the fundamental assumptions that we hold about ourselves and about the world. Do you think that's part of the nature of a real traumatic event?

Dr Meaghan O'Donnell (16:44):

Yeah, absolutely. And I guess your question is kind of alluding to, how come some people can go through a very similar experience and one person develops PTSD and the other doesn't. And I guess from a theoretical perspective, someone goes through this event that challenges their assumptions about the world, they create a fear memory. What we would expect for someone who recovers, is they're able to incorporate new information into that fear memory over time. So yes, they were in danger at the time, but now they're safe. And that safety, that sense of competence; yes, maybe in this particular situation I wasn't safe but usually I am safe, that gets incorporated into the memory. So, the memory changes over time, or at least new information is incorporated into that. The person who develops PTSD is more likely to be highly avoidant. And so, because the fear memory is so aversive to them, they go out of their way to avoid experiencing that memory. And as a result, they're unable to bring new information into that fear memory. And so that's how our treatments work, our kind of exposure based treatments, are creating the environment where someone feels safe enough to experience that fear memory and then bring in new information into that memory, so they're emotionally processing that memory.

Professor Mark Creamer (18:22):

Yeah, absolutely. Okay. So if I could sum that up, the essence of a psychological model, or at least one psychological model anyway, is really about a combination of fear conditioning and avoidance behaviour. And when I was young, we used to call that Mowrer's two-factor theory, but now we talk about that as well as information processing, or a failure to process new information, that challenges some of the more threatening information that's in the memory network. Okay. So, turning to you Sandy, what's your take on the more neurobiological pathways or mechanisms that might underpin the development of these problems and perhaps also the recovery process?

Professor Alexander McFarlane (19:06):

I think, it's a fundamental issue, is that I think one of the problems that we've caught ourselves in recent times in the field is I think to separate the psychology from the biology. Because the original formulation in DSM-III was substantially based on the observations of Cardner who saw PTSD as a physio neurosis. And I think it's actually worth going back to those original diagnostic criteria if you haven't looked at them for a while. Because what he really, and the committee agreed, that there was the intrusive phenomena. And I think what that really takes you to is the neurobiology of memory. And one of the things that we've come to understand about trauma is that the executive systems and the language systems, for example Broca's area, don't capture these experiences in the same way. There's a fragmentation of the neural systems that we normally associate with memory, the memory systems are less engaging of the linguistic networks. And Chris Bruin particularly, has I think written some very elegant work around that.

Professor Mark Creamer (20:26):

And people find it so much more difficult to form a narrative to put their experiences into some kind of coherent story, don't they? Because of that, presumably, because of that failure to activate those kinds of areas.

Professor Alexander McFarlane (20:38):

Absolutely, and I think that really helps us understand the importance of the memory, because it is the fragmentation of the memory, and the memory sort sits in some of the sensory regions and the association regions of the brain rather than in the executive systems. The second thing I think that's worth focusing on, is that the amygdala and the hippocampus people talk about a great deal, and they're about the fear systems and the systems that really determine location, where, and when of memory. One of the things that's different about PTSD from the other anxiety disorders, it's disruptions of executive function, which involves the frontal lobes and particularly the cingulate system. So, I think it's very important to think about one element of this disorder is about memory and language systems.

Professor Mark Creamer (21:30):

And of course this is actually a pretty good survival mechanism from an evolutionary perspective, isn't it? And of course, we've got a whole bunch of hyper arousal symptoms in there that contribute to, that gear us up for the fight-flight response, which is part of the clinical picture of PTSD. So, what do we know about them?

Professor Alexander McFarlane (21:51):

Some very interesting work has been done by Ruth Lanius's group recently, which has shown that while neuroimaging very easily captures the cortical networks, one fascinating finding now is that a lot of that seems to be driven by dysregulation of the brainstem. And one of the things that we, I think often, underestimate about PTSD is the prevalence of a range of somatic symptoms like tachycardia, breathlessness, pain. And one of the things that we are beginning to identify that the region in the brain, the insula, which integrates somatosensory systems and is really being driven from below, is very dysregulated, I think underpins many of these anxiety symptoms. And I think this is a critical issue because those anxiety symptoms are often the ones that treatments, particularly the psychological treatments, are least effective at dealing with, and I think we need to give a lot more thought to the

patterns of hyper arousal. And the important thing about PTSD, we talk about people's reactivity to reminders of the trauma, but in fact, what we find is that people with PTSD are overreactive to all stimuli, stimuli that don't involve threat. And I think our current treatment models haven't really quite embraced the really very significant body of evidence about that.

Professor Mark Creamer (23:25):

Yes, quite, quite, quite. But it's a very complex neurobiological picture, isn't it, with many areas involved. Just to step back a little bit, and this is the neurobiology of PTSD for dummies, but the way I've always thought about it is the amygdala, which is the kind of threat detection and response area being very overactive in PTSD, and the prefrontal cortex, which is kind of the brakes, telling everybody chill, it's okay, we're okay, that part is underactive. Is that a kind of reasonable sort of "for dummies" view?

Professor Alexander McFarlane (23:57):

Well, look, I think that is a reasonable "for dummies" view, but there is one complexity to that argument. And I think that takes us to the third set of symptoms which were actually in DSM-III, and that's about the emotional numbing, because there is a group of people, and I think there's often an oscillation in patients with PTSD, where there's actually overactivation of those frontal systems that completely shut down the amygdala, and that's when people become numb. And that drives things like risk-taking behaviours, cutting, inability to feel emotion. And again, that's a very important set of symptoms that I think we, because they're the absence of feeling, which don't carry overt distress, again I think we sometimes miss the importance of them. So, I think the fear reactivity is a critical issue, but this can be subject to both over and under regulation.

Professor Mark Creamer (24:52):

It's an interesting point, and I think we'll pick up some of that in our next episode where we start looking at diagnosis and clinical pictures, and the fact that people can present with quite different clinical pictures. So, we'll pick that up there. But for now, can I come back to you, Meaghan, and just look very briefly, and I know that this is a really complex issue, but I'm interested in the impact of a person's age at the time of the trauma, and particularly that kind of developmental stage.

Dr Meaghan O'Donnell (25:21):

A lot of people experience trauma in childhood is through child family events. And I think that particularly detrimental on an individual's mental health because they impact on social relationships. If your family isn't able to protect you and keep you safe as a child, then that's going to have huge ramifications for your ability to build trusting relationships as you move forward. So, you see this impact on social relationships, and of course, key to child trauma is this emotional dysregulation. And so, this is where individuals are not able to regulate their emotional world. And of course that has impact on how you deal with stressors and experiences as you grow older. So, you do see this kind of multifaceted impact on a person's psychosocial and biological wellbeing, and I guess that it's particularly devastating when that occurs in childhood.

Professor Mark Creamer (26:31):

Absolutely. Absolutely. So, we need to consider the developmental stage that the person is at. And as we were talking there, I was thinking about the work done with our Vietnam veterans, who were very young when they went to Vietnam. And again, they were still adolescents, really many of them weren't they? And were still in a stage of development, and that substantially impacted their normal development after that.

Dr Meaghan O'Donnell (26:56):

Yeah, that's right. And I guess the other thing is around that negative concepts, negative self concept and early exposure to trauma really impacts on how you view yourself and how you view your self-efficacy and ability to manage the world around you. And again, that predisposes you for a whole pile of stressors as you grow older and are negotiating kind of adulthood, it's much more difficult because you're bringing this with you.

Professor Mark Creamer (27:30):

Yes, absolutely. Absolutely. And of course, it makes it much more of a challenge to cope with the stressors that life throws at you as you're older. Sticking on mechanisms, but perhaps with a view to treatment issues, you're quite keen on the idea of staging, I think, aren't you, Sandy? Can you just tell us very briefly what you mean by staging, and why it's important in PTSD?

Professor Alexander McFarlane (27:54):

Well, I think one of the important constructs is that if we think about any other disease, whether they be a mental illness or a physical disease, what the presentation is early in the disorder is very different if you've had the condition for three months, which is very different if you've had it for five years, which is very different if you've had it from 20 years. And if we think about breast cancer as a model, if you've got a localised small lesion in a breast, the way you treat that is very different than if you've got secondaries in nodes in the armpit, which is very different from if you've got liver secondaries or if you've got disseminated disease. And I think we have perhaps been naive in thinking that a treatment that is highly effective within three months of having post-traumatic stress disorder is going to be as effective in somebody who's had the disorder for 10 years. And I think we've also failed to really think about that there are antecedents to full-blown PTSD. We now understand that sub syndrome or PTSD is much more prevalent and a very important sort of staging point for the development of the full disorder and a real opportunity, I think, to get to some of the psychological and neurobiological dysregulations that may be far more amenable to intervention than once you've actually developed the full condition.

Professor Mark Creamer (29:25):

Yeah, absolutely. Absolutely. And of course, that's particularly important in the context of what Meaghan was just saying about developmental trauma. A final question, Sandy, talking about mechanisms. We've talked about neurobiological mechanisms, and Meaghan has talked about psychological mechanisms and so on. We've also got social and cultural influences. Do you have any views on the extent to which social or cultural, subcultural influences may influence mental health response to trauma post-traumatic mental health?

Professor Alexander McFarlane (29:57):

Look, I think this is an intriguing issue. The first issue is that sometimes I think there are more differences within cultures than there are between cultures. If you look at the different attitudes within our own cultural groups, we shouldn't forget that. The second issue is that there are only a limited number of ways that the human mind can respond, and we are all homo sapiens, after all, so that I think it's often in the subtle manifestations.

Professor Mark Creamer (30:31):

Yeah, I agree. I agree entirely. I mean, I think they can be very subtle, but there are still influences. And I thought your point there, Sandy, about within-culture differences, well, it raises the thorny issue of compensation. This one is a minefield, but if anyone can answer it, Meaghan, I'm sure you can. So, thinking about social and cultural factors, what do we know about compensation? And I know that the research is a bit conflicting on this one, but what's your take on whether or not compensation affects the development of post-traumatic mental health conditions and perhaps also the person's recovery?

Dr Meaghan O'Donnell (31:06):

You always ask me the easy questions! Look, this is a tricky one, and I don't think there's one answer to this. The work that we've done certainly shows that an individual's interaction with a compensation system is made all the more stressful if they have PTSD or depression. And that in turn increases their stress, which drives their symptoms. So, often you'll see people entering into a compensation system with PTSD and their PTSD actually gets worse, and it is around that interaction with the compensation system. So, for example, someone with PTSD will find it much harder to retain information, to understand complex forms, understand what they're supposed to do, and this becomes very stressful. And then in turn, that drives their symptoms. And we see this with depression as well, so there is an interaction effect.

Professor Mark Creamer (32:18):

And presumably, made worse if the compensation system that they're going through is particularly adversarial, that's going to increase stress even more. Is it going to become iatrogenic, really?

Dr Meaghan O'Donnell (32:29):

That's right. And what we're seeing now is a number of different compensation schemes understanding this, and working very hard to facilitate people with mental health problems to help them get through the system, and to negotiate the system, and to try and manage their stress levels, understanding that you don't want to escalate their stress as a function of just coming through the system. So, I think that's a very useful approach in order to not make an individual's mental health deteriorate as a function of being part of that system.

Professor Mark Creamer (33:10):

Absolutely, absolutely. So, maybe it's not the compensation per se, actually, it's the system. Okay. Well, time is running out and we need to draw the discussion to a close. So, I'd like to thank you both very

much, Professor Sandy McFarlane and Professor Meaghan O'Donnell, for sharing your insights with us in this episode.

(33:28):

So, to sum up what we've been discussing today, it's clear that we haven't just discovered this thing that we call post-traumatic stress disorder or post-traumatic mental health problems. Despite what some people say, it's not something that mental health professionals like me have just invented to further our own careers. In fact, human beings have known about this for thousands of years and probably longer. But when it was formally recognised by the American Psychiatric Association in 1980, that legitimised it, it made it okay to study it. And so, we saw an explosion and research and awareness in the field. We know that there are certain features of an experience that increase the likelihood that it will lead to mental health problems, things like the degree of life threat, the level of exposure to the death and suffering of others, and some other features. And we know that these elements make it more likely that the person will have trouble adjusting.

(34:19):

And we know that the relationship between the event and mental health outcomes is a complex one, and there are probably multiple mechanisms operating, neurobiological mechanisms, psychological mechanisms, social and cultural mechanisms, all interacting to explain the development of post-traumatic mental health problems. In the next episode, we'll go on to look at the nature of those problems both mentally and physically, and we'll explore the impact that these reactions can have on the person's functioning and quality of life. I'm Mark Creamer, and I hope you'll join me again for the second episode in this three-part podcast series on trauma, mental health and resilience.

Host (34:57):

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