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Posttraumatic Stress Disorder (PTSD) in Adults: Information for Primary Care

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Summary: Frightening or tragic life events happen to almost everyone at some point. People react to traumatic events in different ways. After the event, some experience symptoms of distress such as anxiety and insomnia, but these usually are short-lived and subside over time. However, some individuals may develop posttraumatic stress disorder (PTSD), with persistent symptoms such as re-experiencing (e.g. flashbacks, nightmares, inability to stop thinking about the trauma), avoidance of reminders (i.e. 'triggers') of the trauma, and autonomic hyperarousal. Primary care providers can play a key role in 1) early identification of patients with PTSD; 2) referring to appropriate supports and services.

Case, Part 1

J. is a new patient to your practice. She is a 35-year-old female that you are seeing for a pap smear. You do ask about prior traumas, and she says no. You and your (female) nurse start the Pap smear. During the procedure however, you notice that she is trembling. When you ask her if everything is okay, she breaks down crying…

What are you going to do?

Epidemiology

How common is trauma? Trauma is very common, with 90% of the population has been exposed to a traumatic event (as defined by DSM-5) (Kilpatrick, 2013).

How common is PTSD?

Fortunately, most individuals who have been exposed to trauma do not develop PTSD. Various factors determine whether or not someone develops PTSD, such as:

- Resiliency factors such as having strong attachments and social supports reduce the likelihood of PTSD.
- Risk factors such as more severe trauma, or repeated trauma and lack of social supports increase the risk of having PTSD.

Nonetheless, a significant percentage ranging from 5% in the general population, to between 12.5-25% of those in primary care settings do meet criteria for PTSD.

	Primary Care	General Population

Point prevalence of PTSD	12.5% for civilians 24.5% for veterans (Spottwood, 2017)	5% (Kilpatrick, 2013)
Lifetime prevalence of PTSD	14.5%-48.8% (Richardson, 2010)	10% (Kessler, 1995)

Types of Trauma That May Lead to PTSD

Anyone who has been victimized or has witnessed a violent act or who has been repeatedly exposed to a life-threatening situation is at risk of developing PTSD such as:

Survivors of:	
● Abuse or neglect (such as childhood abuse or neglect)	
● Domestic violence	
● Rape, sexual assault/abuse	49.0% risk of PTSD
● Physical assault	
Survivors of unexpected events in everyday life:	
● Sudden death of someone close to you (the most common cause of PTSD in men and women)	14.3% risk of PTSD
● Car accidents	6.1% risk of PTSD with serious car accidents
● Natural disasters	
● Major catastrophic event (e.g., terrorist attack, plane crash)	
● Disasters caused by human error (e.g., industrial accidents)	
● Random violent events such as crime	
● Refugees or asylum seekers, who may have experienced war or other trauma in their native countries	
● Life-threatening illness or who have had major medical procedures	

Presentation

Patients do not typically volunteer information about a traumatic event or their PTSD symptoms unless you directly ask.

Symptoms usually begin within the first 3 months following the trauma.

Symptoms can mimic anxiety and depressive disorders.

More rarely, there may be a delay of months or even years before criteria for the diagnosis are met. As a result, primary care providers can play a key role in early intervention by keeping a high index of suspicion in those at risk of developing PTSD.

Symptoms of PTSD

Consider the mnemonic “TRAUMA” to help you remember the symptoms of trauma:

T)raumatic event	Experiencing or witnessing life-threatening) or intensely stressful events
R)e-experiencing the event	Flashbacks, nightmares Repetitive and distressing intrusive images and thoughts from the event ‘Triggers’ that cause one to have intense distress or panic attacks
A)voidance of reminders of the trauma	People with PTSD often avoid thinking or talking about the worst moments of their trauma They may avoid people, places or activities that remind them of the trauma Emotional numbing may happen as a coping strategy against overwhelming emotions
U)nable to function	Impairment in function
M)onth	Symptoms have lasted for at least 1 month)
A)rousal increase (i.e. hyperarousal)	Chronic (hyper)arousal of the autonomic nervous system leads the person to feel constantly on alert, on the edge, which causes exhaustion over time

Red Flags and Risk Factors

Keep an index of suspicion for PTSD with patients with these risk factors:

- Being female, for civilian populations (Spottwood, 2017)
- Being male, in veteran populations (Spottwood, 2017)
- Prior known exposure to violence or trauma (Spottwood, 2017)
- Personnel in first-responder professions (police, firefighters, paramedics and other public safety officers), and military personnel and veterans
- Alcohol and substance use

History and Screening questions

When seeing a patient at risk of PTSD, consider the following screening questions:

Trauma	Have you experienced any traumatic situations or events in your life? If you find it distressing to talk about what happened, please let me know…
Re-experiencing	Do you find it hard not to think about the event that happened to you? Do you have nightmares related to the event that happened to you? Do you have flashbacks and by that I mean very vivid daydreams about the event that happened to you? When something happens that reminds you of the event that happened to you, does it trigger a strong reaction? What are your main triggers?
Avoidance	Do you avoid things that remind you of the event you experienced?
Hyperarousal	Since the event, have you been feeling hypervigilant? startling easily? having trouble sleeping?
Impairment	Do you feel that this event and the way it has left you feeling still gets in the way of your life?
Safety	
Suicidal ideation	Any thoughts that life isn’t worth living? Any plans to end your life?
Homicidal ideation	Are there any people that pose a risk to you? Any thoughts of harming others?

When discussing trauma, respect the patient’s coping:

- If the patient is unable to talk, avoid detailed exploration of any details that the patient does not want to discuss. You might say something like: “Thank you for letting me know. It’s okay if you don’t feel ready to talk much about what happened. After an event like this, the most important thing is to support you so that you can gradually get back into your life. If and when you are ready to talk more, we can do so.”
- If the patient is ready to talk, being able to do imaginal exposure is an important part of trauma therapy.

Screening Tools

Primary Care PTSD Screen

- 4-item self-report yes/no
- Sensitivity of 78% and specificity of 87% for PTSD in patients who answer ‘yes’ to ≥3 items
- Individuals that screen positive should be further assesses for PTSD diagnosis criteria (Richardson et al., 2010)

In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you:
1) Have had nightmares about it or thought about it when you did not want to?
2) Tried hard not to think about it or went out of your way to avoid situations that reminded you of it?
3) Were constantly on guard, watchful, or easily startled?
4) Felt numb or detached from others, activities, or your surroundings?

Screen is positive if patient answers ‘yes’ to any 3 items

PC-PTSD-5 screening tool

- 5-item screen designed for use in primary care settings (Prins et. al 2015).

In the past month, have you…

1. Had nightmares about the event(s) or thought about the event(s) when you did not want to?
2. Tried hard not to think about the event(s) or went out of your way to avoid situations that reminded you of the event(s)?
3. Been constantly on guard, watchful, or easily startled?
4. Felt numb or detached from people, activities, or your surroundings?
5. Felt guilty or unable to stop blaming yourself or others for the event(s) or any problems the event(s) may have caused?

Trauma Screening Questionnaire (TSQ)

- 10-item questionnaire with 5 re-experiencing and 5 arousal items (Brewin et. al 2002).

In the past week, have you experienced any of the following at least TWICE?

1. Upsetting thoughts or memories about the event that have come into your mind against your will
2. Upsetting dreams about the event
3. Acting or feeling as though the event were happening again
4. Feeling upset by reminders of the event
5. Bodily reactions (such as fast heartbeat, stomach churning)
6. Difficulty falling or staying asleep
7. Irritability or outbursts of anger
8. Difficulty concentrating
9. Heightened awareness of potential dangers to yourself and others
10. Feeling jumpy or being startled by something unexpected

DSM-5 Criteria for PTSD

A. Exposure to actual or threatened death, serious injury or sexual violence by:
1. Directly experiencing the event

2. Witnessing the event in person, as it occurs to others
3. Learning that the traumatic event occurred to a close family member or close friend
4. Experiencing repeated exposure to aversive details of traumatic events (police, first responders)

B. The traumatic event is re-experienced, with one or more intrusive symptoms:
1. Recurrent and involuntary distressing memories
2. Recurrent distressing dreams
3. Dissociative reactions (flashbacks)
4. Intense or prolonged psychological distress when reminded of the trauma
5. Marked physiological reactions when reminded of the trauma

C. Persistent avoidance of stimuli or events associated with the trauma as evidenced by one or both :
1. Avoidance of distressing memories, thoughts, or feelings
2. Avoidance of external reminders (people, places, objects)

D. Negative alterations in cognitions and mood when reminded of trauma including 2 (or more) of the following:
1. Inability to remember an important part of the trauma
2. Persistent negative beliefs about oneself, others or the world
3. Blame oneself for the cause or consequences of the trauma
4. Persistent negative emotional state (e.g. anger, guilt, shame)
5. Diminished interest or participation in activities
6. Feelings of detachment or estrangement from others
7. Persistent inability to experience positive emotions

E. Persistent symptoms of increased arousal and reactivity including 2 (or more) of the following:
1. Irritable behaviour and angry outbursts
2. Reckless or self-destructive behaviour
3. Hypervigilance
4. Exaggerated startle response
5. Problems with concentration
6. Sleep disturbance

F. Duration of the disturbance (B,C,D and E) is more than one month

G. Disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

H. Disturbance is not attributable to physiological effects of a substance or another medical condition.

Specifiers:

- With dissociative symptoms (depersonalization, derealisation)
- With delayed onset: full diagnostic criteria are not met until at least 6-months after the event

DDx

There are other conditions that can present with similar symptoms, but are different from PTSD, such as:

Acute stress disorder (ASD)	The disturbance lasts for a minimum of three days and a maximum of one month following the exposure to traumatic event. Essentially same symptoms as PTSD. May be a precursor to PTSD.
Panic disorder	Symptoms of panic disorder are not associated with a specific traumatic event
Generalized anxiety disorder (GAD)	Avoidance, irritability and anxiety of GAD are not associated with a specific traumatic event.

Obsessive-Compulsive disorder (OCD)	While in OCD there are recurrent, intrusive thoughts, the types of thoughts are distinguishable. Thoughts associated with OCD usually are not related to a traumatic event.
Major depressive disorder	Major depression may or may not be preceded by a traumatic event and should be diagnosed if other PTSD symptoms are absent.
Adjustment disorder	Both PTSD and adjustment disorder manifest with distress that develops after exposure to a stressor, however in PTSD the stressor is a traumatic event of severity and type defined in criterion A.

Comorbidity

In adults

Mood disorders such as depression, dysthymia	Any problems with sad moods?
Anxiety disorders such as generalized anxiety, panic attacks	Any problems with anxiety?
Alcohol and substance use disorders	Any problems with alcohol or substances?
Chronic pain, somatization	Any problems with chronic pain? Any physical complaints?
Borderline personality disorder	Any problems with feeling lonely or abandoned?
Dissociative disorders	Any periods where you ‘black out’ or ‘lose time’?

In children:

Oppositional defiant disorder	Any problems with oppositional behaviours?
Separation anxiety disorder	Any problems with separation from adults?

Management: Role of Primary Care Providers

Is it within 4-weeks following a trauma?

- Address any basic needs
  - E.g. if your patient has been assaulted by a partner, does the patient need a safe place to live? Do police need to be involved? Does CAS need to be involved for any children?
- Watch and monitor symptoms.
  - Follow-up closely to monitor symptoms
  - Symptoms will often resolve on their own (NICE Guidelines, 2005.)

Is it beyond 1-month following a trauma?

- Screen for PTSD
- Provide directions and referrals to mental health services and supports (e.g. peer support groups).

Does it appear to be mild to moderate PTSD without significant comorbidity?

- Provide primary care interventions if you feel comfortable
- Provide or refer to psychotherapy prior to considering medications (Richardson et al., 2010)

Does it appear to be severe and chronic PTSD?

- Refer to psychiatry

- Medications may be required to stabilize medications prior to psychotherapy (Richardson et al., 2010)

Principles

- Given that PTSD can cause autonomic arousal, be cautious around medications that increase adrenaline such as stimulants.
- Validate that if the person does not want to talk about the event, this is their attempt to cope. Do not insist that the patient 'needs to talk about it'.
- Manage any comorbidities such as psychiatric or medical such as
    - Anxiety
    - Depression
    - Sleep problems
- Provide psychoeducation for patients and families, with key points such as:
    - Having PTSD symptoms does not mean you are 'going crazy'
    - The reactions seen after trauma are simply a normal response to an abnormal event.
    - If one does have PTSD, note that it is a common condition (~10% in the general population) and it is treatable.

Management: Psychological Interventions

The following are examples of therapeutic interventions for trauma:

Anxiety Management Training

Teaching skills to handle anxiety such as

- Progressive muscle relaxation (PMR)
    - Anxiety BC PMR for adults
    - https://www.anxietybc.com/sites/default/files/MuscleRelaxation.pdf
    - Anxiety BC PMR for children/youth
    - https://www.anxietybc.com/parenting/how-do-progressive-muscle-relaxation
    - MindMasters 2 (http://www.cheo.on.ca/en/MindMasters)

- Breathing retraining
    - Calm Breathing for Adults https://www.anxietybc.com/adults/calm-breathing
    - Anxiety BC "Calm Breathing" for Children/Youth https://www.anxietybc.com/parenting/tools/learning-relax-calm-breathing
    - MindMasters 2 (http://www.cheo.on.ca/en/MindMasters)

- Distraction techniques
    - Cornell University http://www.selfinjury.bctr.cornell.edu/perch/resources/distraction-techniques-pm-2.pdf

- Grounding techniques
    - Links pending

- Acceptance and mindfulness
    - Links pending

Trauma-focused CBT

- Focuses on memories, thoughts, and feelings that an individual has about the traumatic event
- Helps to understand how these feelings, thoughts and behaviours fit together and affect one another
- Exposure which may be

- Imaginal Exposure: Exposure to the traumatic memories in a gradual fashion reduces the distress caused by the memories
- In-Vivo Exposure: Involves home work involving exposure to avoided activities, done in a hierarchical fashion. Can pair with muscle relaxation and mindfulness. Must stay in the activity until anxiety subsides

Eye Movement Desensitization and Reprocessing (EMDR)

- EMDR is a type of 'subcortical' treatment that aims to reprocess one's traumatic memories from emotionally distressing memories, to less distressing and emotionally laden memories.
- Patients are asked to think about their traumatic memory, while being undergoing bilateral stimulation (which may be visual, auditory or tactile).
- Related 'subcortical' treatments that show promise include brainspotting and progressive counting.

Management: Psychological Interventions in Primary Care

For patients with mild to moderate symptoms (i.e. non-complex PTSD), many primary care providers may feel comfortable providing elements of trauma care.

For example, a patient who is unable to drive following a motor vehicle crash.

Management: Pharmacotherapy

Consider medications if psychotherapy has already been tried, but has not been successful.

First-line medications

Medication	Start dosage	Initial target dose	Maximum dosage	Comments
Fluoxetine (Prozac)	10	20	60	Long half-life makes it useful in teens; caution in elderly
Paroxetine (Paxil)	10	20	50	Short half-life; watch for discontinuation syndrome Avoid in elderly and pregnancy
Sertraline (Zoloft)	25	50	200	
Venlafaxine XR (Effexor)	37.5	75	225-300	Short half-life; watch for discontinuation syndrome

Second-line medications

Medication	Start dosage	Initial target dose	Maximum dosage	Comments
Fluvoxamine (Luvox)	50 mg	100	300	GI side effects ; dosages up to 150 mg can be given at night; above 150 mg daily, divide dosages
Mirtazapine (Remeron)	30 mg	30	45	Sedation and increased appetite

Phenelzine	15 mg tid	60 mg daily	90 mg daily	MAO inhibitor; must have strict dietary prescription to prevent hypertensive crisis when taken along with foods rich in tyramine Do not combine with SSRIs

Third-line

- Amitriptyline, aripiprazole, bupropion SR, buspirone, carbamazepine, desipramine, duloxetine, escitalopram, imipramine, lamotrigine, memantine, moclobemide, quetiapine, reboxetine, risperidone, tianeptine, topiramate, trazodone

Adjunctive Therapy

- Second-line: eszopiclone, olanzapine, risperidone
- Third-line: aripiprazole, clonidine, gabapentin, levetiracetam, pregabalin, quetiapine, reboxetine, tiagabine

The following are not recommended:

- Bupropion SR, guanfacine, topiramate, zolpidem
- Alprazolam, citalopram, clonazepam, desipramine, divalproex, olanzapine, tiagabine

Medications for Sleep

Assuming non-medication strategies such as sleep hygiene, grounding strategies, etc. have been tried, one might consider the following medications:

Medication	Start dosage	Initial target dose	Maximum dosage	Comments
Melatonin	3-5 mg	3-5 mg	9-10 mg	Take 1-hr before bedtime, and then maintain a dim, low blue light environment - available as an over-the-counter
Trazodone	25-50 mg qhs	25-50 mg qhs	150 mg qhs	For insomnia
Mirtazapine (Remeron)	30	30	45	Sedation and increased appetite
Clonidine	0.1 mg bedtime		0.2 mg tid	Monitor for hypotension
Nortryptyline	25 mg bedtime	25-75 mg bedtime	100 mg bedtime	Use the lowest, most effective voice for l’avion
Methotrimeprazine (Nozinan)	10 mg qhs		25 mg qhs	As a PRN for anxiety, may be used 5-10 mg qid PRN
Prazosin	1 mg qhs	Increase by 1-2 mg every few days until improvement	15 mg qhs	For reducing traumatic nightmares and improving sleep in patients with PTSD Dosage may be divided to treat daytime hyperarousal Requires baseline and periodic BP monitoring
Doxepin (Silenor)	25mg daily	Up to 25-300 mg daily, divided q12h	Up to 150 mg /daily as a single dosage	

Dimenhydrinate (Gravol)	25 mg qhs	50 mg qhs
Diphenhydramine (Benadryl)	25 mg qhs	50 mg qhs

PRN Medication

For episodic agitation

- Once on an SSRI if the patient requires a PRN medication, consider:
- Methotrimeprazine (Nozinan) 5-10 mg qid prn, or
- Quetiapine (Seroquel) 12.5-25 mg tid prn
- Performance anxiety?
- Consider propranolol 20 mg given before the event

References: Katzman M: The Canadian Clinical Practice Guidelines for the Management of Anxiety, Posttraumatic stress and Obsessive-compulsive disorders, 2014; dosage information from the Compendium of Pharmaceuticals and Specialties (CPS).

When to Refer

Consider referral to mental health services if:

- Complicated presentation with significant co-morbid psychiatric or medical illness, e.g. dissociative symptoms
- Unclear diagnosis
- Significant safety concerns with risk of harm to self or others
- Significant impairment
- Inadequate response to primary care interventions such as psychotherapy and medications

Case, Part 2

Given your patient’s distress during procedure, you stop the exam. You acknowledge and validate her distress. You leave her with your (female) nurse. Your nurse leaves after a few minutes to give your patient some time to recollect herself. After a few minutes, your nurse comes back out and speaks with you discreetly. The patient is apologetic and has disclosed to your nurse that she was sexually abused as a child by a relative.

When she is feeling calmer, you see her again, accompanied by your nurse. She tells you that she would like to get help and support for her issues in her childhood, which she now realizes are getting in the way of her life…

You thank her for her disclosure and ensure that she books a longer follow-up appointment in order to discuss how you might be helpful to her. At the visit, she gives you a history consistent with symptoms of PTSD. You provide her information about local services and supports for past trauma. You make a notification in her medical record so that all staff in the clinic can provide trauma-informed care.

Quiz

1. PTSD may follow after an event such as:
a. Witnessing a car accident
b. Military combat
c. Violent personal assault
d. Traumatic child birth
e. All of the above

2. Most people who have lived through dangerous events develop PTSD
a. True

b. False

3. Which medication has been shown to be effective for reducing trauma nightmares in patients with PTSD?
a. Trazodone
b. Benzodiazepines
c. Prazosin
d. Mirtazapine
e. None of the above

4. M. was walking home alone after a night out and suffered a physical assault in a dark alley. Months later, she refuses to go out at dark alone. She is constantly on red alert, especially when crossing the road. What symptom of PTSD does this best indicate?
a. Dissociation
b. Nightmares
c. Hypervigilance
d. Emotional detachment

5. You are seeing your patient who has experienced a traumatic event. The most important thing to do is:
a. Encourage your patient to talk about it.
b. Support your patient's coping.

Clinical Practice Guidelines

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