TTTCP

This TTTCP is complete with trauma screenings and responses, referrals to in-clinic and out-of-clinic resources, acute crisis interventions, and expanded resources for patients, including resiliency skills and social supports across a framework of six axes pertaining to holistic health and wellness (mentalhealthamerica.net) outlined in detail below. The aim of implementing the TTTCP is to provide a nonjudgmental, safe, and compassionate environment where patients have access to resources that cultivate choice-making, and allow for safety, healing, empowerment, and a regained sense of agency. The TTTCP is dedicated to narrowing health disparities and advancing equity within medicine and health. Ideally, these components of the TTTCP will assist in creating a stable foundation on which individuals may build skills, develop coping mechanisms, and incorporate wellness, community, and resiliency skills that encourage healthier, safer, and more stable lives.

SCOPE OF PROBLEM: BACKGROUND & JUSTIFICATION

Evidence-based interventions (EBIs) are increasingly gaining attention across mental health fields as well as respective clinical applications and have significant implications for patients with past or present trauma and/or current or toxic stressors (Katon et al., 2006; Reeves, 2015). Despite recent growing attention of the importance of recognizing trauma and its applicability to medicine, implementation of trauma-informed and -sensitive care has been extremely slow across biomedical and clinical applications. Over 20 years ago, Kessler et al. (1995) (n=5877) found trauma and posttraumatic stress disorder (PTSD) is significantly more prevalent than previously perceived in biomedical and clinical settings, and is often persistent; supporting this conclusion, just 3 years later, Switzer et al., (1998) evaluated trauma in an urban outpatient clinic (n=170), and found 94% of patients reported at least one major traumatic event (physical assault, rape, or threat with a weapon were the three top-reported). Though certain types of trauma are more common on cis-gender-based analyses (e.g. females more commonly experience various forms of sexual assault; males more commonly experience physical assault) the proportion of experienced trauma is not significantly different between males and females (Switzer et al., 1998). In a study evaluating number and types of trauma associated with suicide, findings show the highest rates of suicide ideation and attempt are associated with childhood maltreatment and sexual assault (LeBouthillier et al., 2015), indicating screening is necessary.

When evaluating service utilization patterns, patients with past trauma had higher service-use (i.e. sought a greater variety of service/medical professionals and used services more frequently than non-trauma-identifying counterparts) with reported lower satisfaction (Switzer et al., 1998). In addition, patients with recent trauma were more likely to experience inpatient hospitalization, and prescribed psychotropic medications (Switzer et al., 1998). Research shows evidence of altered brain functioning as a result of traumatic early abuse and neglect; behaviorally, this translates to higher risk for severe anxiety, depression, cognitive deficiencies, low self-esteem and diagnosable PTSD and comorbid trauma-related diagnoses in children and adults (Glaser, 2000; Haber, 2004; Ryan, 2000).
More recent findings substantiate and expand on older studies’ conclusions, which support the framework for TTTCP: Many primary care patients suffer from trauma-related experiences and have PTSD, usually concurrent with major psychological distress (Taubman-Ben-Ari et al., 2001); PTSD or past trauma has a direct negative relationship with physical health, which is associated with more frequent use of primary health care services (Deykin et al. 2001); There are recognized associations between quantifiable disadvantage (i.e. poverty, homelessness, abuse, discrimination), current stressors, trauma, and adverse health outcomes (McEwan & Gianaros, 2011; Pascoe & Richman, 2009); Mental health disorders, including those associated with trauma, often promote or imitate development of ongoing physiologic imbalance (chronic homeostatic and allostatic disturbances) (Khalsa et al., 2018).

However, recent findings also show promising action steps providers can take, for increased probability of improved care and outcomes for patients with past or present trauma or toxic stress: 1. Clinic providers who pay attention to patients’ trauma histories may improve detection, intervention, and referral to treatment (Liebschutz et al., 2007); 2. Simply asking about trauma, listening, and accepting is shown to be a major intervention in itself (Felitti & Anda, 2014); 3. Primary care physicians who administer the ACE (Adverse Childhood Experiences) survey to adult patients, and follow-up with “I see on the questionnaire that you experienced __X__...Tell me how that has affected you later in life”, showed reduced doctor visits by 35% and reduced ER visits by 11% (Chadwick’s Child Maltreatment, Ed.4, Ch.10, 2014); Implementing trauma-informed and -sensitive care addresses the unique needs of patients, ensures needs of trauma survivors are met, mitigates barriers to care, helps to close health disparities and increases equity, as well as promoting wellness across the lifespan (Phillips & Shonkoff 2000; Reeves, 2015). Recent research from the neurosciences is promising in regard to honing resilience strategies and skills after or during trauma or toxic stress (Sinha et al., 2016).

It is important to note the problem of only focusing on ‘individual resiliency’ in trauma. The problem is a semantic one: resilience often refers only to the individual and their ability to “bend but not break”, to bounce back, and “to adapt well in the face of adversity, trauma, tragedy, threats or even significant sources of stress” (Southwick et al., 2016). By definition, then, we are explicitly ignoring the surrounding environmental factors that are integral to such resilience and healing, which are community and social supports; while social support definitions vary, it is defined as “a social network's provision of psychological and material resources intended to benefit an individual's capacity to cope with stress”, or, “having or perceiving to have close others who can provide help or care, particularly during times of stress” (Southwick et al., 2016). However, resilience and social support cannot be mutually exclusive – healthy social support is associated with higher individual resilience (Southwick et al., 2016). With these definitions, and all presented multidisciplinary evidence, TTTCP proposes the following to begin incorporating evidence-based, trauma-informed and -sensitive care into clinical settings, which is much overdue.

**AIM STATEMENT**
Serve at least 100 patients over a 3-month timeframe, with 50% of patients returning for resiliency and wellness interventions or resources, with 100% of patients (who screen positive for past or present trauma) referred to in-clinic or out-clinic resources and supports, as patient-directed and respective to each individual patient’s needs.
TARGET POPULATION
The TTTCP will be implemented for patients seeking clinical services, who are typically experiencing one or more: homelessness, poverty, intimate-partner or domestic violence, substance use/abuse, multiple forms of childhood/developmental or complex trauma, socio-structural violence, and/or other forms of past or present trauma, or acute/current chronic or toxic stressors.

IMPROVEMENT GOALS/OBJECTIVES & OUTCOME MEASURES

IMPROVEMENT GOAL 1
Screen all patients for known trauma-based triggers and relay information to all Clinic teams, so triggers can be mediated or avoided by providers during clinic.

Measure Trigger Screen A scripted, open-ended survey question will be administered by Trauma Team volunteers (i.e. advocates) to patients that asks about any triggers, with some examples of what “trigger” means and what triggers are (if patient is unsure). Answers will be recorded and disseminated to all providers that work with a given patient, so established boundaries based on patient trigger(s) are respected in provider-patient relationships.

Rationale Patient feedback on the trigger screen question will be requested and recorded; subsequent changes to the screen will be iteratively implemented, based on patient feedback.

IMPROVEMENT GOAL 2
Assess needs of patients and increase access to resources, offer referrals and connect patients to applicable interventions, therapies, or resiliency- or social support-based resources associated with experiences of trauma or toxic stress.

Measure Adverse Childhood Experiences (ACE) Survey (Felitti et al., 2014)

Rationale An adapted ACE questionnaire (whereby only number of ACEs is measured, not type of ACE) will be administered and evaluated, to gain insight into childhood trauma that may still be affecting patients’ lives today. Higher number of ACEs is associated with higher health risk, and vice versa. Information garnered will support advocates in providing more personalized and informed healthcare services and resources.

Measure Life Events Checklist (LEC) (Weathers et al., 2014)

Rationale LEC is a measure of adverse life events experienced as an adult (as opposed to as a child, which ACE measures). An adapted LEC, in conjunction with the adapted ACE (number of adverse life events, as opposed to type), will be administered and evaluated in concert with ACEs and resiliency scales, in order to better provide resources and support to patients who express a want or need for them.

Measure Scale of Protective Factors (SPF)

Rationale SPF is a 24-item, Likert-scaled questionnaire, which measures protective factors related to resiliency in trauma populations, including violent trauma experiences (Ponce-Garcia, Madewell, & Kennison, 2015). Low scores on the SPF generally correlate to low resiliency skills, in addition to significant differences in prioritizing and planning behavior; the inverse is evidenced for high SPF scores. These results are consistent across every SPF subscale and across various types of traumatic stress resulting from traumatic events (Ponce-Garcia, Madewell, & Kennison, 2015). SPF validity pertaining to resiliency across sexual assault survivors achieved adequate model fit as well, in a recent study; SPF factors were also reanalyzed for reliability and validity (Ponce-Garcia, Madewell, & Brown, 2016).

Measure Close-Ended Questions
**Rationale** In order to augment this Improvement Goal, structured questions are to supplement ACE, LEC, and SPF screens.

**Measure** Brief Resilience Scale (BRS)

**Rationale** Developed by Smith et al. (2008) through Ohio State University, the BRS is a 6-item Likert-scale screen. It is empirically evidenced as a reliable screen to assess resilience and may provide information about individuals coping with stressors that affect health (Smith et al., 2008). The BRS is an alternative measure of resilience if a patient does not want to complete the SPF, but is willing to complete a shorter screen.

**IMPROVEMENT GOAL 3**

Identify biases associated with current protocols and screens in context to any questions or screens that are perceived as offensive or condescending, based on the power and privilege difference often existing between medical students/medical practitioners and patients.

**Measure** Open-Ended Survey will be administered by Trauma Team advocates, with consent from each patient, in regard to how each question is perceived and/or how it may be worded in a more sensitive, appropriate, diverse or effective way. Any instances of bias or perceived offense or condescension will be included in changing the TTTCP screens in an iterative way that meets the needs of the target population.

**Rationale** Advocates will request patient feedback about the TTTCP initial screen questions (triggers, IPV, past and present trauma), in context to evaluating any that may be biased or perceived as condescending, offensive, or otherwise inappropriate, and make subsequent changes to program protocols and screens, based on patient feedback.

**IMPROVEMENT GOAL 4**

Train providers, advocates, and volunteers how to run clinic implementing a trauma-informed and trauma-sensitive approach.

**Measure** 1) Administer short quiz to advocates implementing TTTCP and evaluate if TTTCP training results in advocates feeling confident in their ability to follow TTTCP toolkit and protocol implementation; 2) Shadow new trainees and give constructive feedback on their implementation of TTTCP with patients.

**Rationale** It is imperative to verify that all providers (including advocates/volunteers) recognize the importance of their role and how to administer the TTTCP appropriately and sensitively.

**TIMEFRAME**

The nature of this QI is iterative. The initial and tentative timeframe for this QI is 3 months, from June 6, 2019 to September 5, 2019. However, adaptations to barriers and modifications to TTTCP may occur throughout the QI process. This timeframe will include the following aspects of a QI using steps outlined from the PDSA (Plan-Do-Study-Act) cycle:

The plan strategy is outlined herein (“Plan”). Developing and testing strategy and implementing changes along the way will begin June 6, 2019 (“Do”). At the end of the QI in September, 2019, the program and outcome goals will be evaluated against outlined criteria, and implemented changes that show gain will be held (“Study”) by October, 2019. Reassessing and responding, in addition to keeping and spreading successful innovations/changes will be disseminated and implemented by early December, 2019 or earlier (“Act”). Following the ‘completion’ of this iterative QI, it is likely indicated to reevaluate the program after the “Act” aspect of the PDSA cycle is complete; perhaps beginning in January, 2020.
REFERENCES


APPENDIX

1. RECENT RESEARCH FROM THE NEUROSCIENCES is promising in regard to honing resilience strategies and skills after or during trauma or toxic stress (Sinha et al., 2016). Individuals showing neuroflexibility (the ability of the brain to change, and to what degree; often in context to respective cognitive processes), especially in a specific region of the brain called the VmPFC (ventromedial prefrontal cortex; associated with emotional regulation, executive functioning such as planning and goal-setting), were associated with higher stress resilience. Since the VmPFC is crucial to the function of another part of the brain – the amygdala – it is also associated with fear and anger phenotypes (Sinha et al., 2016). Sinha et al. (2016) suggest future clinical applications include interventions shown to target VmPFC neuroflexibility (and/or neuroplasticity); TTTCP includes Healing Centered Yoga (a form of trauma-sensitive yoga), which was implemented as a referral-based adjunct clinical intervention at local clinic in Columbia, Missouri, in September, 2018. Yoga, in addition to aspects of mindfulness, evidence increased neuro-plasticity and flexibility in the VmPFC, in addition to other related brain structures (e.g. amygdala) (Bradshaw et al., 2012, Pradhan, 2015). By introducing interventions, screens, skills, and resources for trauma, based on empirical evidence from a multidisciplinary perspective, we may create a framework within which patients experience increased neuroflexibility and neuroplasticity, in addition to pragmatic skill-building and social supports, which should translate to increased resilience and improved overall wellbeing across patients, acutely and/or longitudinally (Sinha et al., 2016).
2. **CLOSE-ENDED QUESTIONS**
   1. Did you experience any other very stressful event or experience not listed? Yes____ No____
      Maybe/Unsure_____
   2. Do you think any of things above are still impacting you today?
      Yes____ No____ Maybe/Unsure_____
   3. Would you be willing to talk about how the above might be impacting you?
      Yes____ No____ Maybe/Unsure_____

3. **ADVERSE CHILDHOOD EXPERIENCES & LIFE EVENTS CHECKLIST (LEC)**
   **LITERATURE & ADAPTED ASSESSMENTS**

   One common measure of past trauma is the Adverse Childhoods Experiences (ACEs) questionnaire. Adverse Childhood Experiences (ACEs), and chronic or past toxic stress or trauma, have been associated with chronic health conditions (e.g. obesity, depression, suicide attempts, heart disease, cancer, stroke, and more), behavior with possible severe health consequences (smoking, drug use, alcohol abuse), and “life potential” loss (e.g. decreased graduation rates, lost time from work, decreased academic performance and achievement) (CDC, 2016). In fact, the original study evaluating ACEs found a strong, graded relationship “between the breadth of exposure to abuse or household dysfunction during childhood and multiple risk factors for several of the leading causes of death in adults” (n= 13,494) (Felitti et al., 1998).

   ACE is a 10-item survey assessing various trauma experiences during childhood. It is scored such that a higher number (10 = highest possible number) is correlated with higher risk for previously outlined adverse health outcomes (CDC, 2016). It then logically follows that calculating an ACE score is a beneficial clinical tool to gauge the health risk of an individual with past trauma(s), regardless of (and not necessitating) the type(s) of trauma associated with a given ACE score. Such a modified method allows clinics to identify the number of different types of trauma to gain a more holistic perspective of each patient, without asking the patient to disclose the specific type of trauma and cause undue harm or distress. During follow-up from TTTCP initial screen and administration of the modified ACE, volunteers can evaluate if and how past trauma may be affecting a patient’s present life, perceived stress, and current health, and refer to the most appropriate patient-directed and -selected services and resources (e.g. ongoing cognitive behavioral therapy; learning different coping skills; Healing Centered Yoga; resiliency practices). Identifying ACE scores, protective factors, and resiliency scores help achieve TTTCP goals to 1) promote resiliency and 2) understand why patients may have higher rates of disease, behavioral health needs, and/or risky behaviors across the lifespan.
Many of us experience stressful life events that can affect our health and wellbeing. Acknowledging that traumatic events impact our long term health can help us realize what is complicating our health situations.

The results from this questionnaire will assist us in assessing your health and help our team connect you to resources.

Please read the statements below. Count the number of statements that apply and write the total number on the line provided. Please DO NOT mark or indicate which specific statements apply to you.

**Section 1. ACEs**

Think about your life as a **child** (before age 18).

1) Of the following, **HOW MANY** applied to you before age 18? Write the total number ___.

Which of these have happened to you before age 18…

- My parents or guardians were separated or divorced
- I lived with a household member who served time in jail or prison
- I lived with a household member who was depressed, mentally ill or attempted suicide
- I saw or heard household members hurt or threaten to hurt each other
- A household member swore at, insulted, humiliated, or put you down in a way that scared you OR a household member acted in a way that made you afraid that you might be physically hurt
- Someone touched your private parts or asked you to touch their private parts in a sexual way
- You went without food, clothing, a place to live, or had no one to protect you
- Someone pushed, grabbed, slapped or threw something at you OR you were hit so hard that you were injured or had marks
- You lived with someone who had a problem with drinking or using drugs
- You often felt unsupported, unloved and/or unprotected

<table>
<thead>
<tr>
<th>2) Of the following, <strong>HOW MANY</strong> applied to you before age 18? Write the total number ___.</th>
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<tbody>
<tr>
<td>Which of these have happened to you before age 18…</td>
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<tr>
<td>- You were in foster care</td>
</tr>
<tr>
<td>- You experienced harassment or bullying at school</td>
</tr>
<tr>
<td>- You lived with a parent or guardian who died</td>
</tr>
<tr>
<td>- You were separated from your primary caregiver through deportation or immigration</td>
</tr>
<tr>
<td>- You had a serious medical procedure or life threatening illness</td>
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<tr>
<td>- You often saw or heard violence in the neighborhood or in you school neighborhood</td>
</tr>
<tr>
<td>- You were often treated badly because of race, sexual orientation, place of birth, disability or religion</td>
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</tbody>
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Section 2. Life Events Checklist

Think about your life as an adult.

3) Of the statements below, How many happened to you as an adult? Write the total number ____

How many did you personally witness, see, or hear? Write the total number ____

- Natural disaster (for example, flood, hurricane, tornado, earthquake)
- Fire or explosion
- Transportation accident (for example, car accident, boat accident, train wreck, plane crash)
- Serious accident at work, home, or during recreational activity
- Exposure to toxic substance (for example, dangerous chemicals, radiation)

4) Of the statements below, How many happened to you as an adult? Write the total number ____

Did you witness, see, or hear as an adult? Write the total number ____

- Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)
- Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)
- Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)
- Other unwanted or uncomfortable sexual experience
- Combat or exposure to a war-zone (in the military or as a civilian)
- Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)
- Life-threatening illness or injury
- Severe human suffering
- Sudden, violent death (for example, homicide, suicide)
- Sudden, unexpected death of someone close to you
- Serious injury, harm, or death you caused to someone else

5) Did you experience any other very stressful event or experience not listed?

Yes____   No____   Maybe/Unsure____

Section 3.
Do you think any of things above are still impacting you today?

Yes____   No____   Maybe/Unsure____

Would you be willing to talk about how the above might be impacting you?

Yes____   No____   Maybe/Unsure____

Section 4. Resiliency
(Scale of Protective Factors)
(Brief Resiliency Scale)

Adapted ACE and LEC: adapted by Elizabeth Modde, MSII & Heather Saxon, M.A., RYT-200, 2019
4. **TRIGGER(S) SCREENING** LITERATURE & LIMITATIONS TO SCREEN

Neumeister et al. (2017) outlines the cognitive model of PTSD, which defines trauma-related triggers as those that “provoke sudden, intense and automatic emotional responses”. Many patients with trauma can be triggered in medical settings and/or patients may avoid certain medical settings that are perceived as associated with trauma (e.g. cervical exams avoided by females who experienced sexual assault) (Carlson, 2002; Taylor et al., 2012). Patients who see various practitioners, regardless of reason or specialty, may be triggered by easily remedied action-steps taken by providers (Chadwick’s Child Maltreatment, Ed. 4, Ch. 10, 2014; Felitti & Anda, 2014; Liebschutz et al., 2007; Reeves, 2015). While every trauma trigger that can occur in response to a variety of sensory stimuli (e.g. sight, sound, smell) cannot be controlled for (Sexual Assault Centre, 2018), providers are able to ask about known triggers and how to create a safer space for the patient. Examples of mediating trigger responses may be respecting a patient’s request to leave the exam-room door open, to not be touched without explicit permission, to not come up behind the patient, or not use certain words (e.g. relax), and more.

*(Please scroll to next page)*
5. **TTTCP INITIAL SCREEN**

**TTTCP SCREEN (initial screen)**

Patient Name: ________________________________  Patient #: ________________
Date: ____________________  Advocate Initials: ________________

- “Hi, __patient name__. I’m ________. I’m with the trauma team. We screen every patient to see if there’s any resources we may be able to offer you or connect you with at the end of the visit. I have some questions that I ask all patients. You can choose to answer all of them, some of them, or none of them. It’s your choice. I’m here to support you and advocate for you, if you choose”.

**TRIGGERS**

“First, are there any triggers (things that cause you distress) that you would like us to be aware of during your clinic visits? For example, loud noises, closing the exam room door, certain words, reaching over you, or not asking before touching you?”

________________________________________________________________________________________
_____________________________________________________________________________________

“What should we do, or, what should we not do, in order to avoid these triggers?”

_____________________________________________________________________________________

**IPV**

“In the past year have you felt unsafe with or afraid of your significant other, partner, or anyone else?”
Yes: _____  No: _____  Unsure: _____

If YES: “Who do you feel unsafe with or afraid of (list all applicable)?”

H (Physically Hurt you?) _____  I (Insult or talk down to you?) _____
T (Threaten you with harm?) _____  S (Scream at you?) _____

- Thank patient and ask if they would like to see us after medical visit.
- IF patient expresses fear of immediate danger and would like assistance now rather than after the medical visit, **Administer AISS and follow Danger Protocol**.

If NO: Go to **Trauma**.

**TRAUMA**  “We know that unwanted events and stressful situations are common and that they have an impact on our health. Even trauma and severe stress from childhood can have effects on us as adults. Is there anything that might be helpful for us to know in order to better care for you?”  → Probe: “Examples of toxic stress or traumatic experiences include physical or sexual assault, emotional neglect or abuse, neighborhood violence, ongoing discrimination.”
Yes: _____  No: _____  Unsure: _____

If YES,

- Thank patient.
- Ask if they would like you to share this information with medical team.
- Ask if they would like to see us after the medical visit.
- If there is another service that they may be interested in tonight, ask so that the other team can be prepared to work that in to their evening schedule as well.

If NO: Go to **Follow up today**

**Follow up today** “Would you like to see our advocates after your clinic visit today?”
Yes: _____  No: _____  Unsure: _____
6. FLOW CHARTS FOR INITIAL SCREENING & CRISIS PROTOCOLS

1. TRIGGER SCREEN
2. IPV SCREEN

IPV Screen

- Negative?
  - Go to Trauma Screen
  - Administer AISS
    - Positive?
      - Go to Danger Protocol if in current danger for IPV/DV
    - Negative?
- Positive?
  - Administer HITTS

3. TRAUMA SCREEN

TRAUMA SCREEN

- Thank patient
- Negative?
- Positive?
- Thank patient

- Patient wants to follow-up after visit?
  - No
  - Thank patient
  - Yes
    - Administer adapted ACE and LEC screens
    - Refer to appropriate resources
    - Schedule follow-up

- If screened positive on any part of the TTTCP Initial screen, ask if patient would like to see trauma team advocate after their medical visit for resources, including in-clinic and out-of-clinic referrals, resiliency and wellness training, Healing Centered Yoga (HCY), etc.