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Descriptive Characteristics and Risk Factors for Trauma: An Evidence-Based Practice Project

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Descriptive Characteristics and Risk Factors for Trauma:
An Evidence-Based Practice Project

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EBP Project completed in partial fulfillment of the requirements
for the Evidence-Based Practice Course
in the Graduate Occupational Therapy Programs

Fall, 2019

Recommended APA citation:

Jama, H., Jama, H.A., Kreutter, M., Olson Moser, J., Pierre, G., Samejima, S., Teetzel, N., & Bass, J.D. (2019). *Descriptive characteristics and risk factors for trauma: An evidence-based practice project*. Retrieved from <https://sophia.stkate.edu/>

Keywords: trauma, adverse childhood experiences, traumatic events, post-traumatic stress disorder, PTSD, health disparities, health inequities, occupational therapy, risk factors, epidemiology

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Introduction

Evidence Based Practice

Evidence based practice is defined as the integration of knowledge from professional and clinical expertise, patient/client unique values and circumstances, and best research evidence (Straus, Richardson, Glasziou, & Haynes, 2005). The EBP courses in the St. Catherine University occupational therapy programs emphasizes skill building in finding, analyzing, and synthesizing research.

A definition of Evidence-Based Practice (EBP)



(Straus, Richardson, Glasziou & Haynes, 2005)



The EBP Project

Occupational therapy graduate students at St. Catherine University complete an EBP project in partial fulfillment of the requirements for a course on Evidence-Based Practice.

The EBP Process

- Begins with a practice dilemma
- Dilemma is framed as an EBP question and PICO
P (population/problem) I (intervention) C (comparison group) O (outcome(s) of interest)
- Background learning
- Search for the best evidence
- Initial appraisal and critical appraisal of the evidence
- Summary of themes from the evidence
- Recommendations for practice
- Next steps – implementation in practice

Six EBP Projects: Trauma and Trauma Informed Care

1. Descriptive and risk factors
2. Trauma and health outcomes
3. Screening and assessments
4. Perspectives and experiences
5. Interventions for individuals with a history of trauma
6. Training and programs for health professionals

EBP Practice Dilemma: Trauma and Trauma Informed Care

Hypothetical EBP Case Related to Trauma and Trauma Informed Care

The overall focus on trauma and trauma informed care was chosen because of its increasing attention in the news and healthcare priorities. Recognition of trauma and provision of trauma-informed care in health, community, and education settings are important. Peter Levine, a clinical psychologist stated, “The effects of unresolved trauma can be devastating. It can affect our habits and outlook on life...It can take a toll on our family life and interpersonal relationships. It can trigger real physical pain, symptoms, and disease...” and “The paradox of trauma is that it has both the power to destroy and the power to transform and resurrect.” (Levine, n.d.)

Trauma and trauma-informed care was a particularly challenging topic for the EBP projects for several reasons. First, most of the literature is interdisciplinary and so it required looking for resources outside of occupational therapy for evidence. Second, the literature on trauma and trauma-informed care is still emerging. There are quite a few gaps in research that still need to be addressed. Third, we had to acknowledge in our class that some students may have a history of trauma. At the beginning of our class, we talked about the importance of being aware of our feelings regarding this topic and knowing when to get support. That is why we also provided a list of national and Minnesota resources related to trauma.

Background Information on Trauma and Trauma Informed Care

Trauma has been defined as: “results from an **event**, series of events, or set of circumstances **experienced** by an individual as physically or emotionally harmful or life-threatening with lasting adverse **effects** on the individual’s functioning and mental, physical, social, emotional, or spiritual well-being” (SAMHSA, 2014). The key attributes of trauma include:

- **Event:** The event is actual or a threat that may include features of physical or psychological harm, life-threatening, and/or child neglect.
- **Experienced:** An unique label, meaning, and disruption is identified.
- **Effects:** The immediate or delayed, short or long term effects can be named.

There are many different types of trauma and many populations who may be affected by trauma. Trauma is associated with (NCTSN, 2014, <https://www.nctsn.org/what-is-child-trauma/trauma-types>):

- Bullying
- Community violence
- Complex trauma
- Disasters
- Early childhood trauma
- Intimate partner violence
- Medical trauma
- Physical abuse
- Refugee trauma
- Sexual abuse
- Terrorism and violence
- Traumatic grief

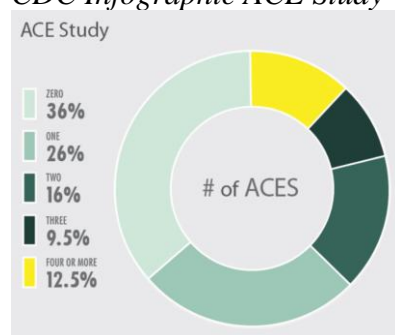
Estimates of adult exposure to trauma vary. Approximately 6 in 10 men and 5 in 10 women have had trauma and 90% of people seen in behavioral health have a history of trauma (SAMHSA, n.d., <https://www.integration.samhsa.gov/clinical-practice/trauma>).

Trauma that is associated with childhood is often labeled an adverse childhood experience (ACE). ACEs are defined as potentially traumatic events in childhood (0-17 years) that may include:

- “violence, abuse, or neglect; witnessing violence in the home; and having a family member attempt or die by suicide...
- growing up in a household with substance misuse, mental health problems, or instability due to parental separation or incarceration of a parent, sibling, or other member of the household.” (CDC, 2019, n.p., <https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/aboutace.html>)

A history of ACEs is reportedly quite common in the adult population (see Figure 1). It is estimated that almost 2/3 of adults have had an adverse childhood experience and 2 in 10 people have had three or more ACEs (CDC, 2016).

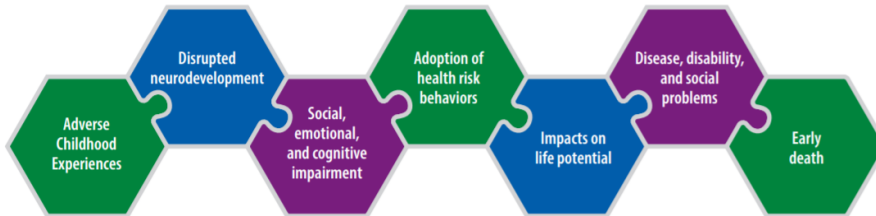
Figure 1
CDC Infographic ACE Study



Note. (CDC, 2016, <https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/ace-graphics.htm>)

Trauma in childhood has a ripple effect on later life (see Figure 2). ACEs may disrupt development, contribute to other impairments, influence risky behaviors, change life potential, influence later health problems and may even be a factor in early death.

Figure 2
CDC Infographic Preventing ACEs



Note. CDC, 2019, n.p., <https://www.cdc.gov/violenceprevention/pdf/preventingACES-508.pdf>

Preventing ACEs is a major priority of public health media campaigns by the Centers for Disease Control and Prevention (CDC, 2019,

<https://www.cdc.gov/violenceprevention/pdf/preventingACES-508.pdf>). Prevention emphasizes:

- Supports for families
- Social norms
- Strong starts
- Skill building to handle everyday challenges
- Connections to caring adults and activities
- Early interventions

The EBP projects from the Fall, 2019, Evidence-Based Practice course provide a snapshot of research studies on trauma and ACEs. Ongoing research in major studies of trauma may be followed in the:

- CDC-Kaiser Permanente Adverse Childhood Experiences (ACE) Study
- Behavioral Risk Factor Surveillance System (BRFSS)
- World Health Organization: ACE International Questionnaire (ACE-IQ)

Trauma-Informed Care (TIC) has been proposed as a framework for professionals and organizations who work with individuals having a history of trauma.

A professional who implements characteristics of TIC:

- Realizes the impact of trauma
- recognizes the signs and symptoms
- responds through policies, procedures, and practices
- resists re-traumatization.

The six principles of TIC are:

- Safety
- Trustworthiness and transparency
- Peer support
- Collaboration and mutuality
- Empowerment, voice and choice
- Cultural, historical, and gender issues

The occupational therapy focus on trauma and trauma-informed care has been relatively recent for the American Occupational Therapy Association (AOTA) even though many practitioners have addressed trauma within their own work setting. The AOTA has four publications that may be of interest to occupational therapy practitioners:

- Understanding and applying trauma-informed approaches across occupational therapy settings. (Fette, 2019)
- AOTA's societal statement on stress, trauma, and posttraumatic stress disorder (Champagne, et al., 2018).
- Occupational therapy's role in mental health promotion, prevention, & intervention with children & youth childhood trauma (AOTA, 2015)
- A trauma-informed approach distinct to occupational therapy: The TIC-OT Model (AOTA, 2018)

Appraisals of Best Evidence, Themes, and Recommendations

After searching and finding evidence available from library databases and alternative sources, students conducted an initial appraisal to evaluate the quality and relevance of the evidence and select the best research for further review. Then they conducted critical appraisals of the best formal reviews of primary research (e.g., systematic reviews, meta-analyses) and/or primary/original research studies. One of the steps in the CAP process is to evaluate the strength or level of the research design and the types of conclusions that are possible from each design.

Initial Appraisal

- Quality of the evidence
 - type of evidence and research design
 - investigator qualifications and journal/publication/website
 - journal/publication/website
- Relevance of the evidence

Critical Appraisal

- Appraisal of methods, results, and implications
- Classification of type of research study
 - Reviews of primary research (e.g., systematic reviews, meta-analyses)
 - Qualitative studies
 - Psychometric studies
 - Primary quantitative research studies
 - Level 1: randomized controlled trials
 - Level 2: two groups, nonrandomized/cohort and case control
 - Level 3: nonrandomized, pretest/posttest and cross-sectional
 - Level 4: single subject
 - Level 5: case report

After completing initial and critical appraisals, themes are summarized related to the EBP question and other findings that emerged from the evidence. Recommendations for practice and reflection on participating in an EBP project are identified in the conclusions.

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All EBP Projects are available at <http://sophia.stkate.edu/>.

EBP Question

What are the perspectives, experiences, and self-reports of adult individuals, groups, or populations who have MCI or report problems with Functional Cognition (and / or their caregivers)?

Executive Summary

Minnesota Occupational Therapy Association Continuing Education Presentation


Descriptive Characteristics and Risk Factors for Trauma

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EBP Question

What are the descriptive characteristics and risk factors for trauma (adverse childhood experiences or traumatic events) and post-traumatic stress disorder (PTSD) in different populations?

What health disparities and health inequities are evident in different populations who have experienced trauma?



https://www.worldvector.com/

Background Learning

- **Prevalence:** majority of the population experiences trauma (Jopantuck et al., 2015; Liu, et al., 2017)
- **Predisposing factors:** SES, discrimination, institutional influence (Mihal, Nemeth, Mueller, Pope, & NeSmith, 2018)
- **Health disparities:** identify progress towards greater health equality (Braveman, 2014; MedlinePlus, 2015)
- **Effects of trauma:** outcomes vary (Breslau, 2009; American Psychological Association, 2013)

Examples of Evidence Resources

OT Specific Resources

- OTSeeker
- American Occupational Therapy Association
- American Journal of Occupational Therapy
- Canadian Association of Occupational Therapists

Interprofessional Journals, Databases & Organizations

- Cinahl
- Pubmed
- PsycInfo
- Sage Journal

Governmental and Major Foundations

- CDC
- Minnesota Dept. of Health
- The Substance Abuse & Mental Health Services
- Agency for Healthcare Research and Quality

Examples of Search Process

Helpful Databases

- EBSCO Megafiles
- PubMed
- PsycInfo
- CINAHL

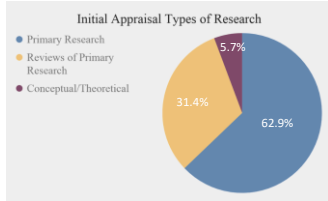
Helpful Search Strategies

- Using boolean/phrases
- Expanders & limiters
- Peer-reviewed journals
- Years limiters: 2000-2019

Helpful Keywords

- Prevalence, Epidemiology
- Adverse Childhood Experience (ACEs)
- Health disparities, inequities
- Risk factors, protective factors
- Post-traumatic stress, trauma

Initial Appraisals of Best Evidence



Research Type	Percentage
Primary Research	62.9%
Reviews of Primary Research	31.4%
Conceptual/Theoretical	5.7%

Overview: Critical Appraisal of Best Evidence

- Worldwide estimates of trauma (Benjet et al., 2016)
- Adverse childhood experiences and disability (Rose, Xia, & Srinaman, 2014)
- Examination of associations among discrimination, racial climate and trauma in a college student population (Pietrese et al., 2010)
- National estimates of trauma using the DSM (Kjpatrick et al., 2013)
- Polyvictimization, income, ethnic differences, and mental health during adolescence (Andrews et al., 2015)
- The social determinants of trauma disparities (Mikhail et al., 2018)
- Demographic, maltreatment, and neurobiological correlates of PTSD symptoms in children and adolescent (DeBellis et al., 2010)

Critical Appraisal 1 & 2

The epidemiology of traumatic event (TE) exposure worldwide: Results from the World Mental Health Survey Consortium (Benjet et al., 2016)

- Focused Question: What is the prevalence of trauma in 24 countries that participated in the World Mental Health survey?
- Clinical Bottom Line: Exposure to TEs is worldwide, identified five TEs, exposure does not occur randomly in population.

Social determinants of trauma: A trauma disparities scoping review and framework (Mikhail et al., 2018)

- Focused Question: What health disparities are present in populations who have experienced trauma?
- Clinical Bottom Line: Identifies social determinants, domains, intervention factors which contribute to disparities.

Critical Appraisal 3 & 4

Demographic, maltreatment, and neurobiological correlates of PTSD symptoms in children & adolescents (DeBellis et al., 2010)

- Focused Question: What is the link between PTSD the development of traumatology model?
- Clinical Bottom Line: Relationships between traumatic events, PTSD symptoms, and psychobiological differences

Adverse childhood experiences & disability in US adults (Rose, Xia, & Srinaman, 2014)

- Focused Question: Is there a relationship between disability status in adulthood and a history of adverse childhood experiences?
- Clinical Bottom Line: Training in trauma-informed care may be important in OT practice to improve therapeutic relationships and client outcomes

Critical Appraisal 5 & 6

An exploratory examination of associations among racial and ethnic discrimination, racial climate, and trauma-related symptoms in college student population (Pietrese et al., 2010)

- Focused Question: How does discrimination serve as a risk factor for symptoms of trauma?
- Clinical Bottom Line: Discrimination contributes to trauma related symptoms and traumatic stress.

Polyvictimization, income, and ethnic differences in trauma-related mental health during adolescence (Andrews et al., 2015)

- Focused Question: What is the relationships among trauma, polyvictimization, ethnicity, and income in adolescents?
- Clinical Bottom Line: Trauma-related symptoms in adolescents may be associated with polyvictimization and ethnicity.

Critical Appraisal 7

National estimates of exposure to traumatic events and PTSD prevalence using DSM-IV and DSM-5 criteria (Kjpatrick et al., 2013)

- Focused Question: What is the prevalence of trauma, and how does the new criteria for PTSD in DSM-5 impact prevalence and gender differences?
- Clinical Bottom Line: A majority of the sample population experienced a traumatic event; women experience more PTSD than men; and change in the criteria did not seem to affect the overall prevalence of PTSD

Theme 1: Broad Characteristics

- 70 to 90% of the general population experience at least one traumatic event (Benjet et al., 2016; Kjpatrick et al., 2013)
- Trauma can eventually lead to Post-Traumatic Stress Disorder (PTSD) (Kjpatrick et al., 2013)
- The top three traumatic experiences adults encounter are physical/sexual assault (53%), death of family or close friend (51%), and natural disaster (50%) (Kjpatrick et al., 2013)

Theme 2: Risk Factors

- Ethnic variation in trauma exposure
(Pietrese et al., 2010; McLaughlin et al., 2019; Mikhail et al., 2018)
- Racial discrimination leading to trauma-related mental health symptoms
(McLaughlin et al., 2019; Andrews et al., 2015)
- Gender differences in trauma exposure
(Kipatrik et al., 2013; Benjet, 2016; Aleksandrs, 2019)
- Socioeconomic status related to adverse experiences
(Mikhail et al., 2018)

Theme 3: Polyvictimization

- Prevalence as high as 30%
(Benjet et al., 2016)
- Health disparities among youth increase polyvictimization
(Andrews et al., 2015; Mikhail et al., 2018)
- Mental and physical health ramifications
(Andrews et al., 2015; Mikhail et al., 2018)

Theme 4: Future Research

- Prevention of exposure to traumatic experiences
(Benjet et al., 2016)
- Protective factors that interrupt pathways between trauma and symptoms
(Benjet et al., 2016; Liu et al., 2017; Pietrese et al., 2010; Rose, Xia, & Steinman, 2014)
- Characteristics and mechanisms that lead to re-victimization
(Benjet et al., 2016; Andrews et al., 2015)
- Specific factors related to discrimination that contribute to different outcomes
(Pietrese et al., 2010)

Recommendations

- Therapeutic relationship
- Interdisciplinary research informed practice
- Understand risk-factors and health disparities
- Advocate

Summary and Reflection

Promote awareness and understanding

Collaboration and empowerment

View trauma through sociocultural lens

Focus on strengths and promote resilience

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Themes

Introduction

Trauma is a pervasive health phenomenon worldwide. Given the prevalence of traumatic experiences, it is important for all health professionals to have an understanding of the public health and epidemiology research. Research revealed several key health disparities in rates of trauma-related health problems between different groups. After completing critical appraisals of best evidence, four main themes arose from the data. The themes include the broad characteristics, including prevalence, types of trauma, and general outcomes; risk factors for experiencing trauma or adverse side effects; the prevalence of and risk for polyvictimization; and gaps in research.

Broad Characteristics

The majority of people will experience one or more traumatic events (TEs) in their lives. In a survey research study of 2,953 adult participants, about 90% of adults reported having experienced at least one TE (Kilpatrick et al., 2013). In a similar study, Benjet et al. (2016) found 70% of the sample had experienced a TE, and over 30% reported experiencing four or more TEs. Five types of TEs accounted for over half of all instances of trauma exposure: witnessing death or severe injury, experiencing the unexpected death of a loved one, being mugged, being in a life-threatening automobile accident, and experiencing a life-threatening illness or injury (Benjet et al., 2016). Those who are exposed to certain TEs, such as interpersonal violence, had a greater chance of developing PTSD (Kilpatrick et al., 2013). According to the DSM 5, PTSD symptom criteria can fall under two types: Single Event PTSD, which is the development of the disorder based off of one TE, and Composite Event PTSD, which includes multiple traumas that lead to

PTSD (Kilpatrick et al., 2013). Data estimated that 9.4% of the population had Composite Event PTSD, while 8.3% had Single Event PTSD (Kilpatrick, et al., 2013).

Childhood trauma is often labeled as adverse childhood experiences (ACEs) and may involve abuse and neglect. The Centers for Disease Control and Prevention (CDC) defines ACEs as “potentially TEs that occur in childhood (0-17 years) such as experiencing violence, abuse, or neglect. [...] Also included are aspects of the child’s environment that can undermine their sense of safety, stability, and bonding” (2019). Most experiences of trauma in childhood are different forms of abuse. Over half of the U.S. population has been affected by an adverse childhood experience (Rose, Xie, & Stineman, 2014). In a survey of 81,184 respondents, adults with disabilities (23%) had a history of higher ACE scores than the general population polled (Rose et al., 2014).

In adulthood, the types of trauma often involve assault or the death of a loved one. In a survey of 2,953 adults, the most common types of trauma in adulthood were physical or sexual assault, death of a family or close friend due to violence/accident/disaster (Kilpatrick et al., 2013). The data also showed about 53% of the sample experienced physical or sexual assault, 51% experienced a death of a family member or close friend due to violence/accident or natural disaster, and 50% experienced a natural disaster (Kilpatrick et al., 2013).

Risk Factors: Race, Gender, and Socioeconomic Status

It is essential to consider discrimination as a health disparity when looking at trauma. Whether related to race/ethnicity, gender, socioeconomic status, etc., most experiences of discrimination elicit similar emotional responses and levels of stress. Constant discrimination can have an adverse effect on long-term health due to the physiological and psychological reactions that may occur (Mikhail, Nemeth, Mueller, Pope, & NeSmith, 2018).

Race and ethnic identity influences rates and types of trauma people experience. In a 2019 survey research study by McLaughlin et al., data showed that Asians had the highest rates of experiencing organized violence, such as being a refugee; African-Americans were most likely to participate in or encounter organized violence, sexual violence, and other traumatic experiences; Latinos were most likely to experience physical violence; and Caucasians had the highest rates of accidents/injuries. Moreover, in the United States, race and ethnic identity is linked to levels of discrimination a person experiences (Mikhail et al., 2018). Studies show a positive relationship between discrimination and symptoms of traumatic stress (Pieterse et al., 2010), and a strong correlation between race and trauma-related mental health concerns (Andrews et al., 2015).

Men and women also differ in the types of traumatic events they experience. In a general population survey of over 68,000 adults, men recorded more injuries, accidents, and physical assault and women noted more sexual assault (Benjet et al., 2016). It is important to highlight the differences in trauma exposure between women and men and to also consider non-binary gender differences as well. According to the National Council for Behavioral Health, many members of the LGBTQ community experience a range of hate crimes in their lives that may contribute to a traumatic response or PTSD (Aleksandrs, 2019).

Individuals with lower socioeconomic status may have more adverse experiences, and these experiences are often associated with life in impoverished communities and negative health outcomes. In a scoping review of nearly 700 articles, lower socioeconomic status was associated with higher-risk behaviors, more injuries with higher morbidity and mortality rates, and decreased access to and quality of health care (Mikhail et al., 2018). Neighborhoods with lower socioeconomic status were more likely to have trauma risk factors, such as racial segregation,

low home ownership, high family mobility, and higher rates of child abuse, infant deaths, school dropouts, criminality, and psychological disorders (Mikhail et al., 2018). Living in a high-crime neighborhood has been shown to increase the risk of being mugged or sexually assaulted, whereas living in a conflict zone increased the likelihood of seeing a dead body, witnessing atrocities, and experiencing the unexpected death of a loved one (Benjet et al., 2016).

Polyvictimization: Prevalence and Disparities

Trauma is often not an isolated incident and many people experience several traumatic events throughout their life. In fact, trauma is thought to be socially contagious and as such, if one person has experienced one trauma event, it is likely they have experienced another (Mikhail et al., 2018). As Benjet et al. (2016) found in their international survey of 68,894 people, over 30% of people reported experiences of four or more traumatic events. This phenomenon is known as polyvictimization, or the exposure to multiple forms and experiences of trauma and/or victimization throughout a lifespan (Andrew et al., 2015; Mikhail et al., 2018). Klevens, Simon, and Chen (2012) stated that polyvictimization rates in youths ranged between 18% and 50% (as cited by Mikhail et al., 2018).

It is important to consider how health disparities play a role in a person's exposure to trauma. Rates of trauma tend to be higher in populations that experience discrimination, and this is true of polyvictimization as well (Andrew et al., 2015; Mikhail et al., 2018). For example, a study comparing Hispanic, non-Hispanic Black, and non-Hispanic White youths found that Hispanic and non-Hispanic Black youths had higher rates of polyvictimization than non-Hispanic White youths (Andrews et al., 2015). These findings highlight how health disparities, such as race or neighborhood, may impact a person's exposure to traumatic events.

Those who experience polyvictimization often have a higher prevalence of mental health problems, such as depression or post-traumatic stress disorder (PTSD). A survey research study of 3312 adolescents found that higher trauma exposure was highly correlated with differences in mental health symptoms (Andrews et al., 2015). Economic disparities played a role in these findings as polyvictimization predicted trauma-related mental health symptoms in youth from parental groups reporting annual income of less than \$20,000 and those who reported greater than \$20,000 annual income (Andrews et al., 2015). Moreover, polyvictimization may impact more than mental health. A scoping review of more than 700 articles found that chronic physical and emotional stress, caused by several exposures to trauma, contributed to damage to the body known as “allostatic load” and created lifelong health problems (Mikhail et al., 2018). Constant exposure to trauma has been linked to immune dysregulation, which may impact the body’s ability to fight infections and repair itself (Mikhail et al., 2018). In conclusion, polyvictimization is essential to understand because the exposure to several traumatic events may create chronic stress, which in turn influences health and other disparities (Mikhail et al, 2018).

Future Research: Intervention, Prevention, and Discrimination

Research provided data indicating that traumatic events are typical human experiences. However, additional research is needed to fully understand the risk factors that lead to traumatic experiences (Benjet et al., 2016). A better understanding of risk factors can help guide the implementation of interventions. Identification of risk factors may make it possible to anticipate the needs of communities that are under stress, in order to put supports and programs in place to prevent trauma (Benjet et al., 2016).

Many factors influenced the ways that traumatic experiences impacted mental and physical health. These factors included experiences of discrimination, experiences of prior

traumatic events, and buffers against negative impacts (Benjet et al., 2016; Pieterse et al., 2010). Individuals may experience the same traumatic event yet have different long term physical and emotional effects. Future research that identifies how protective factors may interrupt the pathway between trauma and trauma-related symptoms would inform the trauma informed care (TIC) approaches to intervention.

Research has not yet identified the characteristics and mechanisms that make individuals who have experienced trauma more likely to experience trauma again. These characteristics may be biological, environmental, behavioral or psychological (Kilpatrick, et al., 2013). Data on the prevalence of polytrauma indicates that this is an area that warrants further examination. Early evidence from a prevalence survey has shown that after one trauma has been experienced, subsequent traumas exacerbated the symptoms of the original event (Kilpatrick et al., 2013). This study indicated that initial traumatic events increased the exposure to future traumatic events (Kilpatrick et al., 2013). Further research in this area can inform interventions that take into account the impact of multiple traumatic events.

Finally, large scale studies are needed to understand the experiences of discrimination that lead to higher rates of traumatic experiences for some groups. Research on health disparities found a higher association between traumatic events and negative health outcomes in groups that experience discrimination (Pieterse et al., 2010). One factor associated with the negative effects of trauma was the perception of discrimination (Pieterse et al., 2010). By better understanding constructs that can mitigate the effects of trauma, we can provide more specific and appropriate care to those affected by trauma, particularly groups at risk for health disparities.

Summary and Implications for Practice

In this Evidence-Based Practice group project, the findings revealed trauma as a common experience, risk factors associated with trauma exposure, and buffers that help protect people from the negative effects of trauma. These findings suggest that people are not at fault for their exposure to trauma, the importance of using trauma-informed care with patients, and the need to be aware of people's cultural and demographic context. Future practitioners should use a strength-based approach in therapy. Future research may fill in the gaps regarding the prevalence of trauma in certain demographic groups. While our findings are important, the focus on survey research creates a limitation because it relies totally on self-report. The key take home message is the necessity for health care professionals to be aware of the high prevalence of trauma and use trauma informed care (TIC) principles and therapeutic use of self with every client.

Trauma is prevalent with the majority of the population having experienced at least one traumatic event (TE). Many risk factors are associated with TEs and different demographic groups experience varying rates of exposure. This may be associated with race, gender, or socioeconomic status. Along with population risk factors, environmental factors and social supports may buffer the impact of traumatic experiences. For example, the same traumatic experience may impact a person in different ways and is influenced by resiliency and community supports.

Since trauma is processed and experienced differently by everyone, it is not possible to predict who will exhibit negative symptoms. Traumatic experiences are something that people endure, not a choice that people place upon themselves. It is important to treat the whole person while acknowledging their past trauma. In occupational therapy, this allows an opportunity to use therapeutic sense of self and create safe spaces, knowing that many people have experienced

trauma. Being aware of personal identity and perceptions of trauma within a cultural context is important. The practitioner's role is to support the client's goals and values.

Recommendations for practice emphasize empowerment of individuals who have experienced trauma. The practitioner can provide a safe space in which provides clients a choice whether to disclose their trauma. A trauma-informed care approach is recommended with all clients, regardless of setting. Given the high prevalence of trauma in our society, it is safe to assume that we will regularly work with clients who have experienced trauma. Although it is appropriate to compel any disclosure of trauma, it is the responsibility of the practitioners to be aware of the general information and keep that knowledge in mind when caring for clients. By understanding the prevalence, risk factors, and the many effects of trauma on people, practitioners can support clients and help them reclaim and participate in meaningful occupations in their lives.

Future research should emphasize prevalence and risk factor studies in different populations. Further investigation of the types of trauma and specific populations who are at a higher risk for poor health outcomes is warranted. Longitudinal studies would add knowledge regarding the long-term impacts of trauma, PTSD, or health problems and the lifespan trajectory of trauma. Survey research has been an efficient tool for collecting data from large sample, but lower response rates are possible if people are not willing to disclose information because of family members being present or their cultural norms. Low response rates are also evident when there is a reluctance to share, or denial about trauma that has been experienced. Practitioners should advocate for research that examines the prevalence, risk factors, and consequences of trauma in targeted populations.

In the last decade, large survey research studies have provided estimates of the prevalence, risk factors, and outcomes of trauma for children and adults. The ACEs study provided a framework for gathering data on adverse childhood experiences and documenting the traumatic experiences of children. The understanding of ACEs informs our work with adults with disabilities. Clients who have disabilities may have a history of ACEs and therefore, training in trauma informed care may be important in occupational therapy practice to improve therapeutic relationships and client outcomes, as well as giving us an understanding of the nature of trauma across the lifespan. The occupational therapy practice of considering person and environment factors, as they relate to everyday life, is a good fit for trauma informed care and may enrich these descriptive studies. Given the prevalence of traumatic experiences, It is important for all health professionals to have an understanding of the public health and epidemiology research.

Our group's "take-home" message is that the prevalence of trauma is high, and thus, treating all clients with a trauma-informed care approach is important. Public health research and epidemiology studies provide critical information that may inform the therapeutic relationship, screening, and assessment and interventions to improve health and participation outcomes. Occupational therapy is one profession that may support improved outcomes from trauma informed care because of its emphasis on interventions that foster resiliency, highlight strengths, and recognize the client and what they bring to the table.

Table of EBP Resources

Table 1.

Governmental and Foundation Resources that Address Trauma

Title/Name	Brief Description	Source
Trauma Informed Care	Describes basic principles of practicing trauma informed care (TIC), how trauma affects a broad population, and various categories of trauma.	Agency for Healthcare Research and Quality https://www.ahrq.gov/ncepcr/tools/healthier-pregnancy/factsheets/trauma.html
Coping with a Traumatic Event	General information on posttraumatic stress syndrome (PTSD), including differences in types and treatments.	Center for Disease Control and Prevention https://www.cdc.gov/masstrauma/factsheets/public/coping.pdf
Adverse Childhood Experience (ACE) in Minnesota	An article that identifies the prevalence, occurrence, impact, resilience, and how ACEs lead to trauma.	Minnesota Department of Health https://www.health.state.mn.us/communities/ace/index.html
SAMHSA's Concept of Trauma and Guidance for Trauma-Informed Approach	A brief overview of ACEs, trauma, and PTSD. Provides information on trauma-informed care and Substance Abuse and Mental Health Services Administration (SAMHSA). Includes screening tools and webinars that focus on improving health outcomes through trauma-informed care.	SAMHSA https://store.samhsa.gov/system/files/sma14-4884.pdf
PTSD: National Center for PTSD	General information about PTSD, including the impact of violence and abuse on women, men, children and people in the military.	U.S Department of Veterans Affairs https://www.ptsd.va.gov/understand/types/violence_abuse.asp

Table 2.

Occupational Therapy Resources that Address Trauma

Title/Name	Brief Description	Source
Childhood Trauma: Occupational Therapy's Role in Mental Health Promotion, Prevention and Intervention with children and Youth	Defining and identifying childhood trauma and TIC. The role of occupational therapy (OT) in addressing trauma and additional resources. https://www.aota.org/~media/Corporate/Files/Practice/Children/Childhood-Trauma-Info-Sheet-2015.pdf	American Occupational Therapy Association (AOTA) Info Sheet www.aota.org
Understanding and Applying Trauma-Informed Approaches Across Occupational Therapy Settings	Introduction to trauma and lifespan implications. Overview of trauma informed approaches to intervention across clinical settings. https://www.aota.org/~media/Corporate/Files/Publications/CE-Articles/CE-Article-May-2019-Trauma.pdf	AOTA Continuing Education Article www.aota.org
Occupational Therapy and Mental Health Care	Role of OT in supporting mental health care in patients with trauma. https://caot.in1touch.org/.../O%20-%20OT%20and%20Mental%20Health%20Care.pdf	Canadian Association of Occupational Therapists Position Statement
Role Of Occupational Therapy in Disaster Preparedness, Response, and Recovery	Defining OTs role in the preparation, response, and recovery process of disasters. https://search.proquest.com/docview/906336207/fulltextPDF/CFCCFA69E04C4247PQ/1?accountid=26879	www.caot.ca American Journal of Occupational Therapy www.ajot.aota.org
AOTA's Societal Statement on Stress, Trauma and Posttraumatic Stress Disorder	Statement on the effects of physical, mental, and emotional stress. Importance of OT education in order to facilitate best outcomes for patients. https://ajot.aota.org/article.aspx?articleid=2701703&ga=2.10930868.1808935633.1572461606-234915475.1562334920	AOTA Official Document www.aota.org

Table 3.

Interdisciplinary Journals, Databases, Professional Associations that Address Trauma

Title/Name	Brief Description	Source
Biological Psychiatry	Official journal of the Society of Biological Psychiatry and one of the most selective and highly cited journals in the field of psychiatric neuroscience. Includes novel results of original research.	https://www.biologicalpsychiatryjournal.com/content/bps-aims
International Society for Traumatic Stress Studies	An international interdisciplinary professional organization that works to advance knowledge and research on traumatic stress.	https://www.istss.org/home.aspx
Journal of Clinical Psychology	Peer-reviewed journal devoted to research, assessment, and practice. Focuses on the clinical challenges confronting psychotherapists, in the form of either a distinct patient population or a therapeutic dilemma.	https://onlinelibrary.wiley.com/journal/10974679
PsychINFO	Database run by American Psychological Association. Contains many journals/articles related to psychological conditions, such as PTSD.	Access available through St. Kate's Library
Trauma, Violence, & Abuse	Peer-reviewed journal devoted to organizing, synthesizing, and expanding knowledge on all forms of trauma, abuse, and violence. Publishes only research and law review articles.	https://journals.sagepub.com/home/tva

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Appendix A. Initial Appraisals

	Overview of Article
Type of article	Overall Type: Primary research study Specific Type: Cross-sectional Study & Longitudinal, and Multi-site Research
APA Reference	DeBellis, M. D., Hooper, S. R., Woolley, D. P., Shenk, C. E. (2010). Demographic, maltreatment, and neurobiological correlates of PTSD symptoms in children and adolescents. <i>Journal of Pediatric Psychology</i> , 35, 570–577.
Abstract	“Objective: To examine the relationships of demographic, maltreatment, neurostructural and neuropsychological measures with total posttraumatic stress disorder (PTSD) symptoms. Method: Participants included 216 children with maltreatment histories (N = 49), maltreatment and PTSD (N = 49), or no maltreatment (N = 118). Participants received diagnostic interviews, brain imaging, and neuropsychological evaluations. Results: We examined a hierarchical regression model comprised of independent variables including demographics, trauma and maltreatment-related variables, and hippocampal volumes and neuropsychological measures to model PTSD symptoms. Important independent contributors to this model were SES, and General Maltreatment and Sexual Abuse Factors. Although hippocampal volumes were not significant, Visual Memory was a significant contributor to this model. Conclusions: Similar to adult PTSD, pediatric PTSD symptoms are associated with lower Visual Memory performance. It is an important correlate of PTSD beyond established predictors of PTSD symptoms. These results support models of developmental traumatology and suggest that treatments which enhance visual memory may decrease symptoms of PTSD” (p.570).
Author	Credentials: MD, MPH Position and Institution: Duke University Medical center Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: scholarly Peer-Reviewed Publisher: Journal of Pediatric Psychology
Date and Citation History	Date of Publication: 2010 Cited By:124
Stated Purpose or Research Question	“The purpose of this study was to identify correlates hypothetically linked to PTSS in maltreated children, using the developmental traumatology model. Using hierarchical regression, low SES, the General Maltreatment, and Sexual Abuse Factors were independent correlates of PTSD symptoms” (p. 574).
Author’s Conclusion	“Similar to adult PTSD, pediatric PTSD symptoms are associated with lower Visual Memory performance. It is an important correlate of PTSD beyond established predictors of PTSD symptoms. These results support models of developmental traumatology and suggest that treatments which enhance visual memory may decrease symptoms of PTSD” (p. 570).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good quality Rationale: This article explore the relationship between demographic, maltreatment, neurostructural and neuropsychological measures with total posttraumatic stress disorder (PTSD) symptoms.
Overall Quality of Article	Overall Quality of Article: Good quality Rationale: This article was published about 9 years by highly credible authors who published several scholarly articles.

	Overview of Article
Type of article	Overall Type: Conceptual or Theoretical Article Specific Type: Overview
APA Reference	Klein, S., & Alexander, D. A. (2009). Epidemiology and presentation of post-traumatic disorders. <i>Psychiatry</i> , 8(8), 282-287.
Abstract	“The history of trauma research is a relatively short one, dating back to the introduction of post-traumatic stress disorder (PTSD) into the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) in 1980. Whilst the introduction of PTSD has provided a major impetus for the scientific investigations of post-traumatic conditions in a variety of samples, fewer epidemiological studies have been conducted in the general population for both adults and children. Large differences in the lifetime prevalence rates reported for adult exposure to traumatic events (3.9–89.6%) as well as for PTSD (1.0–11.2%) have been observed owing to variations in the design, sampling strategies, and method of diagnostic assessments used. Despite these differences, however, several consistent findings have emerged, although it remains unclear to what extent the outcome of population-based surveys conducted predominantly in the USA can be generalized to other countries. Similarly, disasters occur in a wide variety of settings and circumstances, thereby introducing a number of methodological challenges that may deviate substantially from those commonly used in traditional epidemiological studies. Systematic reviews of the disaster literature based on meta-analyses have sought to address these limitations. A similar approach has been applied to the identification of vulnerability factors for PTSD in trauma-exposed adults to establish why considerable individual differences exist. Such knowledge is imperative to inform the selective use of interventions. We still await a better understanding of why some individuals display positive changes after trauma, given evidence of resilience in the face of even the most severe stressor” (p. 282).
Author	Credentials: PhD; MA; Cert (COSCA); Position and Institution: Director of Aberdeen Centre for Trauma Research, Faculty of Health and Social Care, The Robert Gordon University, Aberdeen, UK; Principal Member and Theme Leader for Neurological & Mental Health, Institute for Health & Wellbeing Research Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer-reviewed journal Publisher: Elsevier Other: Psychiatry (Journal)
Date and Citation History	Date of publication: August 2009 Cited By: 31
Stated Purpose or Research Question	“... Such knowledge is imperative to inform the selective use of interventions.” (p. 282)
Author’s Conclusion	“Adverse events, single or serial, can compromise an individual’s mental health, not only in the short term but sometimes in the long term. PTSD has shown itself to be a useful diagnosis, but there is much to be done to refine this diagnostic concept, particularly with regard to the extent to which it is shaped by cultural and contemporary influences” (p. 286).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate - poor Rationale: This article has useful information in relation to trauma, epidemiology, and trauma-related conditions. We might be able to use some of the statistics and data as it seems trustworthy. However, it is a conceptual article which is not very beneficial to our critical appraisal because it is a secondary source.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: The author seems very trustworthy and appears to have done plenty of research in the past. There is a lot of research cited within it. This article is more of a “report” on trauma and trauma-related disorders, rather than original research. I imagine it might be helpful for a research paper. It is also 10 years old so is starting to age.

	Overview of Article
Type of article	Overall Type: Conceptual Review article Specific Type: Overview
APA Reference	Nooner, K. B., Linares, L. O., Batinjane, J., Kramer, R. A., Silva, R., & Cloitre, M. (2012). Factors related to Posttraumatic Stress Disorder in adolescence. <i>Trauma, Violence & Abuse, 13</i> (3), 153–166.
Abstract	“Studies of posttraumatic stress disorder (PTSD) in adolescence published from 2000 to 2011 indicate that adolescents are at greater risk of experiencing trauma than either adults or children, and that the prevalence of PTSD among adolescents is 3–57%. Age, gender, type of trauma, and repeated trauma are discussed as factors related to the increased rates of adolescent PTSD. PTSD in adolescence is also associated with suicide, substance abuse, poor social support, academic problems, and poor physical health. PTSD may disrupt biological maturational processes and contribute to the long-term emotion and behavior regulation problems that are often evident in adolescents with the disorder. Recommendations are presented for practice and research regarding the promotion of targeted prevention and intervention services to maximize adolescents’ strengths and minimize vulnerabilities. Public policy implications are discussed” (p. 153).
Author	Credentials: PhD, LP, LCAS Position and Institution: University of North Carolina Wilmington Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: N/A
Date and Citation History	Date of Publication: 2012 Cited By: 124
Stated Purpose or Research Question	“For the purposes of the present review, we will combine terms abuse and assault together within type (physical or sexual) because the type of trauma and the rates of PTSD were very similar in studies of abuse and assault. In addition, perpetrator status was often not designated, and when it was, definitions differed by study or overlapped” (p. 155).
Author’s Conclusion	“In summary, PTSD in adolescence is debilitating in many aspects of life as seen in the research demonstrating measurable behavioral and brain changes as well as increased instances of substance abuse and suicide. For all of these reasons, understanding the diverse factors that relate to the development, maintenance, and recovery from PTSD is especially important for protecting adolescents, which this review has shown is a unique and vulnerable population” (p. 162).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Relevance Rationale: This article was a longitudinal which covers the concept of risk factor for PTSD and trauma, violence and abuse. Adolescent female offenders meeting full criteria for PTSD reported on average 4.7 traumatic events, compared to 3.2 events for partial PTSD diagnosis, and 2.4 events for those with no diagnosis
Overall Quality of Article	Overall Quality of Article: Good Quality Rationale: This article was published in 2012; which follows the lives of adolescent with trauma. The author has good credentials and many scholarly articles.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Cross-Sectional Study
APA Reference	Adams, R. E., Ritter, C., & Bonfine, N. (2015). Epidemiology of trauma: Childhood adversities, neighborhood problems, discrimination, chronic strains, life events, and daily hassles among people with a severe mental illness. <i>Psychiatry Research</i> , 230(2), 609-615.
Abstract	“Trauma during childhood and adolescence is a common event among people with a serious psychological disorder. Few studies assess a wide range of stressors for this population. This is surprising given that these stressful events are implicated in poorer outcomes related to course and treatment of mental health problems. This study of 214 people with serious mental illness examines the prevalence of childhood traumas, perceived neighborhood problems, discrimination, chronic strains, negative life events, and daily hassles. We use regression analyses to determine if these stressors are associated with quality of life. Results show that 95% of the sample report at least one childhood adversity. Perceived neighborhood problems, experiences of discrimination, chronic strains, life events, and daily hassles were also common. Examining the relationship between demographic factors and stressors suggests that older respondents, Whites, those who have never been married, and people diagnosed with Schizophrenia reported fewer stressors compared to those who are older, non-White, ever married, or suffering from other types of mental health problems. Finally, three of the six types of stressors were related to lower quality of life and depression. We discuss the implications of these findings for the treatment of severe psychological problems” (p. 609).
Author	Credentials: PhD Position and Institution: Professor of Sociology, Kent State University Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly Peer-Reviewed Article Publisher: Elsevier Other: Psychiatry Research
Date and Citation History	Date of Publication: 2015 Cited By: 10
Stated Purpose or Research Question	“First, what is the prevalence of traumatic events reported by people with a severe mental illness? Second, does the number of traumatic events differ by age, sex, race, psychiatric diagnosis, or by one's social roles (i.e. marital and parental status)? Third, to what extent do traumas, negative events, chronic stressors, perceived discrimination, and daily hassles negatively affect quality of life in this population?” (p. 610).
Author's Conclusion	“These findings, combined with those from the present study, indicate that social service providers interested in promoting trauma-informed care need to pay attention to the full range of problems faced by persons with severe mental illness, not just current major life events or distal childhood adversities, as each type of stressor may impact depressive symptoms and quality of life” (p. 614).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Relevance Rationale: The article identifies prevalence of traumatic events among different demographics within a particular population.
Overall Quality of Article	Overall Quality of Article: Good Quality Rationale: This article was published by an established author in reputable journal within the last 10 years.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Survey Research
APA Reference	Alegria, M., Fortuna, L. R., Lin, J. Y., Norris, F. H., Gao, S., Takeuchi, D. T., ... Valentine, A. (2013). Prevalence, risk, and correlates of posttraumatic stress disorder across ethnic and racial minority groups in the United States. <i>Medical Care</i> , 51(12), 1114–1123. doi:10.1097/MLR.0000000000000007
Abstract	“OBJECTIVES: We assess whether posttraumatic stress disorder (PTSD) varies in prevalence, diagnostic criteria endorsement, and type and frequency of potentially traumatic events (PTEs) among a nationally representative US sample of 5071 non-Latino whites, 3264 Latinos, 2178 Asians, 4249 African Americans, and 1476 Afro-Caribbeans. METHODS: PTSD and other psychiatric disorders were evaluated using the World Mental Health–Composite International Diagnostic Interview (WMH-CIDI) in a national household sample that oversampled ethnic/racial minorities (n=16,238) but was weighted to produce results representative of the general population. RESULTS: Asians have lower prevalence rates of probable lifetime PTSD, whereas African Americans have higher rates as compared with non-Latino whites, even after adjusting for type and number of exposures to traumatic events, and for sociodemographic, clinical, and social support factors. Afro-Caribbeans and Latinos seem to demonstrate similar risk to non-Latino whites, adjusting for these same covariates. Higher rates of probable PTSD exhibited by African Americans and lower rates for Asians, as compared with non-Latino whites, do not appear related to differential symptom endorsement, differences in risk or protective factors, or differences in the types and frequencies of PTEs across groups. CONCLUSIONS: There appears to be marked differences in conditional risk of probable PTSD across ethnic/racial groups. Questions remain about what explains risk of probable PTSD. Several factors that might account for these differences are discussed, as well as the clinical implications of our findings. Uncertainty of the PTSD diagnostic assessment for Latinos and Asians requires further evaluation” (p. 2)
Author	Credentials: Ph.D Position and Institution: Chief of Disparities Research Unit at Massachusetts General Hospital, and professor at Harvard Medical School Publication History in Peer-Reviewed Journals: extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: American Public Health Association Other: Official Journal of the American Public Health Association
Date and Citation History	Date of Publication: 2013 Cited By: 87
Stated Purpose or Research Question	“We build upon this work using the Collaborative Psychiatric Epidemiology Surveys (CPES) to test: 1) whether there are differences in risk and protective factors as well as in PTSD prevalence across major ethnic/racial groups; 2) if so, whether these differences appear associated with variations in type of trauma or in patterns of symptom endorsement; and 3) whether these differences remain when adjusted for sociodemographic factors (education, nativity), clinical factors (psychiatric illnesses), support factors (family and friend support), type and number of traumatic exposures, and for variations in symptom endorsement” (p. 3).
Author’s Conclusion	“[W]e found that African Americans have higher, while Asians and Latinos have lower prevalence rates of probable lifetime PTSD, as compared to non-Latino whites. These differences remain for Asians and African Americans after adjustment for sociodemographic, clinical and social support factors. [...]Higher conditional risk of probable lifetime PTSD among African Americans and lower risk for Asians does not appear associated with differential reaction to traumatic events. [...]Political violence was more frequently reported by Latinos and Asians as compared to nonLatino whites. Yet, these same groups report lower rates of probable PTSD compared with non-Latino whites. [...]While statistical adjustments for type of traumatic event and frequency help us identify what might be associated with higher conditional risk of PTSD, the interpretation of traumatic experiences may be quite diverse in different ethnic/racial groups” (p. 7).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate relevance Rationale: This article addressed differences in risk, trauma types, and PTSD prevalence across major ethnic/racial groups. However, it did not address health disparities or inequities, which is a focus on our EBP question.
Overall Quality of Article	Overall Quality of Article: Good Quality Rationale: Credible author, journal, publisher. Publication within the last 10 years.

Primary Research Study

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Survey Research
APA Reference	Benjet, C., Bromet, E., Karam, E. G., Kessler, R. C., McLaughlin, K. A., Ruscio, A. M., ... Koenen, K. C. (2016). The epidemiology of traumatic event exposure worldwide: Results from the World Mental Health Survey Consortium. <i>Psychological Medicine, 46</i> (2), 327–343. doi:10.1017/S0033291715001981
Abstract	“Background: Considerable research has documented that exposure to traumatic events has negative effects on physical and mental health. Much less research has examined the predictors of traumatic event exposure. Increased understanding of risk factors for exposure to traumatic events could be of considerable value in targeting preventive interventions and anticipating service needs. Method: General population surveys in 24 countries with a combined sample of 68 894 adult respondents across six continents assessed exposure to 29 traumatic event types. Differences in prevalence were examined with cross-tabulations. Exploratory factor analysis was conducted to determine whether traumatic event types clustered into interpretable factors. Survival analysis was carried out to examine associations of sociodemographic characteristics and prior traumatic events with subsequent exposure. Results: Over 70% of respondents reported a traumatic event; 30.5% were exposed to four or more. Five types – witnessing death or serious injury, the unexpected death of a loved one, being mugged, being in a life-threatening automobile accident, and experiencing a life-threatening illness or injury – accounted for over half of all exposures. Exposure varied by country, sociodemographics and history of prior traumatic events. Being married was the most consistent protective factor. Exposure to interpersonal violence had the strongest associations with subsequent traumatic events. Conclusions: Given the near ubiquity of exposure, limited resources may best be dedicated to those that are more likely to be further exposed such as victims of interpersonal violence. Identifying mechanisms that account for the associations of prior interpersonal violence with subsequent trauma is critical to develop interventions to prevent revictimization” (p. 327).
Author	Credentials: Ph.D. Position and Institution: Researcher and Faculty Member, National Institute of Psychiatry Publication History in Peer-Reviewed Journals: extensive
Publication	Type of publication: scholarly peer-reviewed Journal Publisher: Cambridge University Press Other: international journal for psychiatry with a high impact factor
Date and Citation History	Date of Publication: 2016 Cited By: 266
Stated Purpose or Research Question	“[T]o address the limitation in previous studies of TE exposure by estimating the prevalence and examining sociodemographic correlates of a wide range of TEs in 26 surveys from 24 countries that participated in the World Health Organization’s (WHO) World Mental Health (WMH) Surveys” (p. 328).
Author’s Conclusion	“Given the nearly omnipresent nature of TE exposure, no obvious single vulnerable group emerges for interventions. Rather, limited resources may need to be dedicated to those segments of the population that are more likely to be exposed to multiple TEs. While most TE types were associated with subsequent TE exposure, the magnitude of those associations varied; the strongest associations were for interpersonal violence predicting subsequent interpersonal and sexual violence, confirming and expanding upon previous studies of revictimization” (p. 339).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Relevance Rationale: The review includes prevalence and sociodemographic data, and associations for predicting trauma exposure, which is relevant to our EBP topic. The data includes 68,894 adult respondents across six continents, making it generalizable to a broad population.
Overall Quality of Article	Overall Quality of Article: Good Quality Rationale: The journal and author has high credibility. Article was published within the last 5 years and has a relatively high citation history.

	Overview of Article
Type of article	Overall Type: Primary Research Study (quantitative) Specific Type: Survey Research
APA Reference	Bosqui, T. J., Shannon, C., Tiernan, B., Beattie, N., Ferguson, J., & Mulholland, C. (2014). Childhood trauma and the risk of violence in adulthood in a population with a psychotic illness. <i>Journal of Psychiatric Research</i> , 54, 121-125.
Abstract	“There are strong links between childhood trauma and the risk of violence (Ford et al., 2007). Despite evidence that people with psychotic disorders are at a higher risk of violence than the general population (Witt et al., 2013) there have been few studies that have examined the trauma-violence link in this population (Spidel et al., 2010). This study explored the association between a history of childhood trauma (abuse, neglect and conflict-related trauma) and the risk of violence in adults with psychotic disorders. The strongest associations with the risk of violence were found for sexual abuse ($r = .32$, $p < .05$) and the impact of community conflict ($r = .32$, $p < .05$). An accumulative effect of trauma was found using a hierarchical regression (adjusted $R^2 = .14$, $F(2,37) = 4.23$, $p < .05$). There are implications for applying models of violence to psychosis, risk assessment and treatment of people with psychotic disorders as well as informing trauma models and protective factors for children in conflict-affected regions” (p.121).
Author	Credentials: N/A Position and Institution: Clinical psychology at American University of Beirut Publication History in Peer-Reviewed Journals: Limited
Publication	Type of publication: Peer-review Journal Publisher: Pergamon / Elsevier Other: Journal of Psychiatric Research
Date and Citation History	Date of publication: 12 March 2014 Cited By: 20
Stated Purpose or Research Question	“This study therefore aimed to contribute to an under-researched area by exploring the association between multiple and accumulative childhood traumatic experiences and the risk of violence in adulthood in individuals with psychotic disorders. It also aimed to address some of the limitations of past research by including all psychotic disorders and multiple forms of childhood trauma, and using standardized measures of childhood trauma and the risk of violence perpetration” (p.122).
Author’s Conclusion	“This highlights the importance of assessing and treating trauma in this population and including a thorough assessment of childhood trauma in risk assessment procedures. The study also suggests optimism for conflict-affected regions in protecting children from the effects of community conflict. Future research is required to build on the knowledge base for this population and address the historical neglect of those affected by psychotic disorders and childhood trauma” (p.124).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: This article is useful in examining childhood trauma and the risk of violence in adults with psychotic disorder. It also mentions the importance of assessing and treating trauma in this population. This study provides the foundation for future studies to implement or address trauma informed care in this population affected by psychotic disorder and childhood trauma.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: The sample size for this article is small and there are many things to consider when interpreting and generalizing the findings of this article. The sample size for this article is small. The study also relied on retrospective-self reporting. The study also had limitations due to relying on diagnosis which does not include particular symptoms.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Prospective Study
APA Reference	Carlson, E. B., Palmieri, P. A., & Spain, D. A. (2017). Development and preliminary performance of a risk factor screen to predict posttraumatic psychological disorder after trauma exposure. <i>General Hospital Psychiatry, 46</i> , 25-31. doi: http://dx.doi.org/10.1016/j.genhosppsych.2016.12.011
Abstract	“Objective: We examined data from a prospective study of risk factors that increase vulnerability or resilience, exacerbate distress, or foster recovery to determine whether risk factors accurately predict which individuals will later have high posttraumatic (PT) symptom levels and whether brief measures of risk factors also accurately predict later symptom elevations. Method: Using data from 129 adults exposed to traumatic injury of self or a loved one, we conducted receiver operating characteristic (ROC) analyses of 14 risk factors assessed by full-length measures, determined optimal cutoff scores, and calculated predictive performance for the nine that were most predictive. For five risk factors, we identified sets of items that accounted for 90% of variance in total scores and calculated predictive performance for sets of brief risk measures. Results: A set of nine risk factors assessed by full measures identified 89% of those who later had elevated PT symptoms (sensitivity) and 78% of those who did not (specificity). A set of four brief risk factor measures assessed soon after injury identified 86% of those who later had elevated PT symptoms and 72% of those who did not. Conclusions: Use of sets of brief risk factor measures shows promise of accurate prediction of PT psychological disorder and probable PTSD or depression. Replication of predictive accuracy is needed in a new and larger sample”(p. 25).
Author	Credentials: PhD Position and Institution: Clinical Professor at Stanford University School of Medicine Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly Peer Review Journal Publisher: Elsevier Other: General Hospital Psychiatry
Date and Citation History	Date of Publication: 2017 Cited By: 5
Stated Purpose or Research Question	“The purpose of the current study was to determine whether the risk factors we assessed could accurately identify those who would later have high levels of PT symptoms and those who would not.” (p.26).
Author’s Conclusion	“Use of sets of brief risk factor measures shows promise of accurate prediction of PT psychological disorder and probable PTSD or depression. Replication of predictive accuracy is needed in a new and larger sample.” (p.25).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Relevance Rationale: The focus of this article is weighed more on the screening, however there is information to reference regarding risk factors.
Overall Quality of Article	Overall Quality of Article: Moderate Quality Rationale: This article was published by an established author within the last 10 years, however there is a low citation score.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Correlational/ Predictive study
APA Reference	Gerber, M. M., Frankfurt, S. B., Contractor, A. A., Oudshoorn, K., Dranger, P., & Brown, L. A. (2018). Influence of multiple traumatic event types on mental health outcomes: Does count matter? <i>Journal of Psychopathology and Behavioral Assessment</i> , 40(4), 645-654.
Abstract	“The experience of potentially traumatizing events (PTEs) may be associated with conflicting outcomes: individuals may experience greater psychological distress (dose-response theory), or individuals may become more resilient against repeated PTEs (stress-inoculation theory). With limited empirical data comparing these theories, we examined the relationships between the count of lifetime PTE types and psychological outcomes [posttraumatic stress disorder (PTSD), depression, impaired distress tolerance] using linear and quadratic regressions. A linear relationship would support the dose-response theory, and a quadratic relationship would support the stress-inoculation theory. We also explored whether there was a threshold number of PTE types fostering resiliency before an increase of distressing outcomes. The sample included 123 (68.30% female) treatment-seeking patients at a community mental health center participating in a larger study (Contractor et al. in <i>Psychiatry Research</i> , 252, 252215–252222, 2017). Linear regression results indicated number of PTE types significantly predicted increasing PTSD and depression severity and distress tolerance difficulties. Quadratic regression model results were not significant. ROC analyses indicated exposure to at least 3.5 PTE types predicted PTSD with moderate accuracy. In conclusion, the dose-response theory was supported, with results indicating there may be a threshold count of lifetime PTE types (> 3) influencing traumatic stress outcomes.” (p. 645)
Author	Credentials: PhD Position and Institution: Professor of Psychology at the University of Northern Texas Publication History in Peer-Reviewed Journals: Limited
Publication	Type of publication: Scholarly Peer-Reviewed Journal Publisher: Springer
Date and Citation History	Date of Publication: 2018 Cited By: 3
Stated Purpose or Research Question	“Assessed the (1) nature of the relationship between the count of lifetime PTE types and psychological outcomes (PTSD, depression, distress tolerance difficulties), and (2) the minimum threshold count of lifetime PTE types that was predictive of detrimental psychological outcomes.” (p. 647).
Author’s Conclusion	“Further, the threshold count of lifetime PTE types as measured by the SLESQ indicating the most optimal balance between sensitivity and specificity was 3.5 for a PTSD diagnosis. This is similar to the 4 event Brisk threshold^ found by Karam et al. (2014). While we know that count is not the sole determinant of PTE outcomes, this novel information indicates researchers and practitioners may give additional consideration to individuals who have experienced more than three lifetime PTE types especially in relation to PTSD severity.” (p. 650)
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Relevance Rationale: This study investigates the threshold of potentially traumatic experiences (PTE) or potential risk factors that would predispose an individual to PTSD. The topic fits the question, however the research design’s inclusion and exclusion makes it susceptible to participation bias.
Overall Quality of Article	Overall Quality of Article: Moderate Quality Rationale: The author has only a few published articles within the field with a low citation number. However, the journal and publisher are reputable.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Cohort, longitudinal study
APA Reference	Hepp, Gamma, Milos, Eich, Ajdacic-Gross, Rössler, . . . Schnyder. (2006). Prevalence of exposure to potentially traumatic events and PTSD. <i>European Archives of Psychiatry and Clinical Neuroscience</i> , 256(3), 151-158.
Abstract	“OBJECTIVE: The aim of this study was to estimate the prevalence rate of exposure to potentially traumatic events (PTE) and posttraumatic stress disorder (PTSD) in a representative sample of the general population. METHOD: A representative community-based cohort from the canton of Zurich, Switzerland was interviewed in 1993 and 1999 at the age of 34/35 and 40/41 years, respectively, by means of a semi-structured diagnostic interview. RESULTS: The weighted lifetime prevalence of PTE in 1999 was 28%. Of the persons who reported exposure to PTE (criterion A), none met all the remaining criteria for PTSD according to the DSM-IV. Eleven persons (2 males and 9 females) met the criteria for subthreshold PTSD. This corresponds to a weighted 12-month prevalence for subthreshold PTSD of 1.30% (0.26 % for males; 2.21 % for females). In 1993, no participant met all criteria for PTSD according to the DSMIII- R. The weighted 12-month prevalence for subthreshold PTSD was 1.90 % (2.9 % for males; 0.9 % for females). CONCLUSION: The prevalence of exposure to PTE in Switzerland was relatively low. No single case of full PTSD was found in the sample, and even for subthreshold PTSD the prevalence was very low. The relatively stable socio-economic and political climate in Switzerland may contribute to a sense of safeness, which may protect Swiss citizens to some extent from developing PTSD in the aftermath of traumatic experiences.” (p. 151)
Author	Credentials: MD Position and Institution: Department of Psychiatry University Hospital, Zurich, Switzerland Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly. Peer-reviewed Publisher: European Archives of Psychiatry & Clinical Neuroscience
Date and Citation History	Date of publication: 2005 Cited By: 114
Stated Purpose or Research Question	“The aim of this study was to estimate the prevalence rate of exposure to potentially traumatic events (PTE) and posttraumatic stress disorder (PTSD) in a representative sample of the general population.” (p. 151)
Author’s Conclusion	“The fact that Switzerland has not been involved in war for 150 years, has not experienced any major natural disasters in recent decades, the relatively low crime rate and the virtual absence of terrorism, in addition to the political and economic stability may well contribute to a sense of security which, to some extent, protects Swiss citizens from developing PTSD in the aftermath of traumatic experiences.” (p. 157)
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: Includes prevalence of exposure to potentially traumatic events and PTSD which is directly relevant to EBT question.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: Published over 10 years ago. Numbers may not be relevant today. Established author.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: cross-sectional cohort study
APA Reference	Hong, S. B., Youssef, G. J., Song, S. H., Choi, N. H., Ryu, J., McDermott, B., ... Kim, B. N. (2014). Different clinical courses of children exposed to a single incident of psychological trauma: A 30-month prospective follow-up study. <i>Journal of Child Psychology and Psychiatry</i> , 55(11). 1226-1233.
Abstract	“BACKGROUND: We investigated the distinct longitudinal trajectories of posttraumatic stress symptoms in a sample of 167 children, who witnessed death of two mothers of their schoolmates. METHODS: The cohort was followed-up for 2 days (T1), 2 months (T2), 6 months (T3), and 30 months (T4) after the traumatic event. The children's posttraumatic stress symptoms (T1-T4), depression (T1, T3 and T4), state anxiety (T1, T3 and T4), and quality of life (T4) were assessed, along with parental stress related to child rearing (T4). Different trajectory patterns of children's posttraumatic stress symptoms were identified using growth mixture modeling (GMM). RESULTS: Four different patterns of symptom change were identified, which were consistent with the prototypical model, and were named Recovery (19.9%), Resilience (72.7%), Chronic Dysfunction (1.8%), and Delayed Reactions (5.6%). Significant differences were found in depression and anxiety scores, children's quality of life, and parental rearing stress according to the distinct longitudinal trajectories of posttraumatic stress symptoms. CONCLUSIONS: The present study suggests that individual differences should be taken into account in the clinical course and outcome of children exposed to psychological trauma. The two most common trajectories were the Resilience and the recovery types, together suggesting that over 90% of children were evidenced with a favorable 30-month outcome. The latent classes were associated with significant mean differences in depression and anxiety scores, supporting the clinical validity of the distinct trajectories” (p.1226).
Author	Credentials: Associate Professor Position and Institution: Seoul National University College of Medicine Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer-reviewed Journal Publisher: Journal of Child Psychology and Psychiatry
Date and Citation History	Date of Publication: 2014 Cited By: 16
Stated Purpose or Research Question	“the psychological aftermath of traumatic events in children, studies have focused primarily on chronic and ongoing adversity (Garmezy, 1993; Panter-Brick, Goodman, Tol, & Eggerman, 2011) rather than on isolated traumatic events occurring in otherwise normative contexts” (p.1227).
Author's Conclusion	“The present study suggests that individual differences should be taken into account in the clinical course and outcome of children exposed to psychological trauma. The two most common trajectories were the Resilience and Recovery types, together suggesting that over 90% of children were evidenced with a favorable 30-month outcome. The latent classes were associated with significant mean differences in depression and anxiety scores, supporting the clinical validity of the distinct trajectories.” (p.1226)
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Relevance Rationale: Article seeks to understand the short- and long-term clinical outcomes of a sample of children exposed to a single traumatic event. This study investigated the longitudinal trajectory of posttraumatic stress symptoms in a sample of children who witnessed a horrible accident involving death of two mothers of their schoolmates.
Overall Quality of Article	Overall Quality of Article: Good Quality Rationale: The author is credible and the articles a large sample size and different forms of trauma.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Survey research
APA Reference	Kilpatrick, D. G., Resnick, H. S., Milanak, M. E., Miller, M. W., Keyes, K. M., & Friedman, M. J. (2013). National estimates of exposure to traumatic events and PTSD prevalence using DSM-IV and DSM-5 criteria. <i>Journal of Traumatic Stress, 26</i> (5), 537-547. doi:10.1002/jts.21848
Abstract	“Prevalence of posttraumatic stress disorder (PTSD) defined according to the American Psychiatric Association’s Diagnostic and Statistical Manual fifth edition (DSM-5; 2013) and fourth edition (DSM-IV; 1994) was compared in a national sample of U.S. adults (N = 2,953) recruited from an online panel. Exposure to traumatic events, PTSD symptoms, and functional impairment were assessed online using a highly structured, self-administered survey. Traumatic event exposure using DSM-5 criteria was high (89.7%), and exposure to multiple traumatic event types was the norm. PTSD caseness was determined using Same Event (i.e., all symptom criteria met to the same event type) and Composite Event (i.e., symptom criteria met to a combination of event types) definitions. Lifetime, past-12-month, and past 6-month PTSD prevalence using the Same Event definition for DSM-5 was 8.3%, 4.7%, and 3.8% respectively. All 6 DSM-5 prevalence estimates were slightly lower than their DSM-IV counterparts, although only 2 of these differences were statistically significant. DSM-5 PTSD prevalence was higher among women than among men, and prevalence increased with greater traumatic event exposure. Major reasons individuals met DSM-IV criteria, but not DSM-5 criteria were the exclusion of nonaccidental, nonviolent deaths from Criterion A, and the new requirement of at least 1 active avoidance symptom” (p. 537).
Author	Credentials: PhD Position and Institution: University Professor of Clinical Psychology at the Medical University of South Carolina, Department of Psychiatry and Behavioral Sciences Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer-reviewed journals Publisher: John Wiley & Sons, Inc Other: Journal of Traumatic Stress
Date and Citation History	Date of publication: October 1, 2013 Cited By: 859
Stated Purpose or Research Question	“Therefore, the major objectives of this study were to determine: (a) national estimates of exposure to DSM-IV and DSM-5 Criterion A events; (b) national estimates of DSM-IV and DSM-5 PTSD prevalence based on meeting symptom criteria included in the DSM-5 to a single Criterion A event type (Same Event) or to multiple Criterion A event types (Composite Event); (c) reasons for differences in meeting criteria as defined in the DSM-IV and the DSM-5; (d) sex differences in PTSD prevalence; and (e) the conditional probability of PTSD as a function of specific Criterion A event types and numbers of types of event exposure.” (p. 538).
Author’s Conclusion	“Based on these results, the authors concluded that “. . . PTSD is now a reliable diagnosis . . .” (p. 3). Therefore, evidence is consistent with a DSM-5 PTSD diagnosis that is reliable, has evidence of construct validity, is not substantially different in terms of prevalence based on the DSM-IV criteria, but that includes changes in Criterion A, in PTSD symptoms, and in PTSD symptom clusters.” (p 546).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: Results provide overall and sex difference prevalence of PTSD and examines traumatic events resulting in PTSD. However, the research also examines the differences between the DSM-IV and DSM-V criteria for PTSD, and how that affects diagnoses which is not relevant to our question.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: Sample size is taken from a research sampling company with previously existing participants. This can be questionable to the generalizability of the results. Reputable author and journal.

	Overview of Article
Type of article	Overall Type: Primary Research Study - Survey Research (quantitative) Specific Type: "Surveys were administered in 20 countries from 2001-2012" (p.270).
APA Reference	Liu, H., Petukhova, M. V., Sampson, N. A., Aguilar-Gaxiola, S., Alonso, J., Andrade, L. H., . . . Kessler, R. C. (2017). Association of DSM-IV posttraumatic stress disorder with traumatic experience type and history in the World Health Organization world mental health surveys. <i>JAMA Psychiatry</i> , 74(3), 270-281.
Abstract	"Importance: Previous research has documented significant variation in the prevalence of posttraumatic stress disorder (PTSD) depending on the type of traumatic experience (TE) and history of TE exposure, but the relatively small sample sizes in these studies resulted in a number of unresolved basic questions. Objective: To examine disaggregated associations of type of TE history with PTSD in a large cross-national community epidemiologic data set. Design, setting, and participants: The World Health Organization World Mental Health surveys assessed 29 TE types (lifetime exposure, age at first exposure) with DSM-IV PTSD that was associated with 1 randomly selected TE exposure (the random TE) for each respondent. Surveys were administered in 20 countries (n = 34 676 respondents) from 2001 to 2012. Data were analyzed from October 1, 2015, to September 1, 2016. Main outcomes and measures: Prevalence of PTSD assessed with the Composite International Diagnostic Interview. Results: Among the 34 676 respondents (55.4% [SE, 0.6%] men and 44.6% [SE, 0.6%] women; mean [SE] age, 43.7 [0.2] years), lifetime TE exposure was reported by a weighted 70.3% of respondents (mean [SE] number of exposures, 4.5 [0.04] among respondents with any TE). Weighted (by TE frequency) prevalence of PTSD associated with random TEs was 4.0%. Odds ratios (ORs) of PTSD were elevated for TEs involving sexual violence (2.7; 95% CI, 2.0-3.8) and witnessing atrocities (4.2; 95% CI, 1.0-17.8). Prior exposure to some, but not all, same-type TEs was associated with increased vulnerability (eg, physical assault; OR, 3.2; 95% CI, 1.3-7.9) or resilience (eg, participation in sectarian violence; OR, 0.3; 95% CI, 0.1-0.9) to PTSD after the random TE. The finding of earlier studies that more general history of TE exposure was associated with increased vulnerability to PTSD across the full range of random TE types was replicated, but this generalized vulnerability was limited to prior TEs involving violence, including participation in organized violence (OR, 1.3; 95% CI, 1.0-1.6), experience of physical violence (OR, 1.4; 95% CI, 1.2-1.7), rape (OR, 2.5; 95% CI, 1.7-3.8), and other sexual assault (OR, 1.6; 95% CI, 1.1-2.3). Conclusion and relevance: The World Mental Health survey findings advance understanding of the extent to which PTSD risk varies with the type of TE and history of TE exposure. Previous findings about the elevated PTSD risk associated with TEs involving assaultive violence was refined by showing agreement only for repeated occurrences. Some types of prior TE exposures are associated with increased resilience rather than increased vulnerability, connecting the literature on TE history with the literature on resilience after adversity. These results are valuable in providing an empirical rationale for more focused investigations of these specifications in future studies" (p.270).
Author	Credentials: MD, MBA Position and Institution: Department of Health Care Policy, Harvard Medical School, Boston, Massachusetts; Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, Massachusetts. - president-elect of the Association of Directors of Medical Student Education in Psychiatry Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Peer-reviewed Journal Publisher: American Medical Association, Other: Jama psychiatry
Date and Citation History	Date of publication: 1st March 2017 Cited By: 72
Stated Purpose or Research Question	"We address these uncertainties herein by examining associations of disaggregated TE types and histories of PTSD in a unique sample of 34 676 respondents from the World Health Organization (WHO) World Mental Health (WMH) surveys. By examining how does posttraumatic stress disorder prevalence vary by the type of traumatic experience and history of exposure to traumatic experiences" (p.271).
Author's Conclusion	"We also confirmed that prior exposures to some TEs are more associated with resilience than vulnerability. Finally, we confirmed the findings of previous studies that broader TE history is associated with generalized vulnerability to PTSD but that this association is limited to prior TEs involving assaultive violence" (p.278).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: This article provides survey assessment about the World Health Organization which was conducted in 20 countries. It looks to examine 29 different TE with DSM-IV PTSD and one randomly selected TE for each respondent. An important component of this research paper is that the prevalence of PTSD with composite international diagnostic. Other finding is that prior traumatic event can sometimes increase resilience for individuals.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: This large sample size which helped to provide an analysis of how repeated exposure to traumatic events can be associated with resilience or generalized vulnerability to the disorder. This study had limitations to consider such as the cross-sectional design has the potential of recall inaccuracy that could have biased estimates. The second limitation of this study is that PTSD was assessed with a fully structured diagnostic interview which did not concordance with clinical diagnosis. The study does not assess the individual differences in vulnerability which could influence TE exposure or PTSD.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Survey Research
APA Reference	Lukaschek, K., Kruse, J., Emeny, R. T., Lacruz, M. E., von Eisenhart Rothe, A., & Ladwig, K.-H. (2013). Lifetime traumatic experiences and their impact on PTSD: A general population study. <i>Social Psychiatry & Psychiatric Epidemiology</i> , 48(4), 525–532. https://doi.org/10.1007/s00127-012-0585-7
Abstract	<p>“Objective: Exploring the relationship of exposure to a traumatic event and the subsequent onset of posttraumatic stress disorder (PTSD) in the population.</p> <p>Methods: Posttraumatic stress disorder was assessed using the Impact of Event Scale (IES), Posttraumatic Diagnostic Scale (PDS) and interview data. Logistic regression analyses with sex, age, marital status, educational level and traumatic event characteristics were performed. Prevalence were standardized to the sex and age distribution of the German population.</p> <p>Results: A total of 41 % of the subjects reported exposure to a trauma, leading to full PTSD in 1.7 % and to partial PTSD in 8.8 % of the participants. Logistic regression revealed accidents (OR 2.5, 95 % CI 1.3-4.7), nonsexual assault by known assailants (4.5, 2.1-9.8), combat/war experiences (5.9, 2.0-17.4), life-threatening illness (4.9, 2.7-8.9) and interpersonal conflicts (15.5, 2.5-96.0) as risk factors for full PTSD; risk factors for partial PTSD were accidents (3.2, 2.4-4.3), sexual (4.6, 2.2-9.6) or nonsexual (2.3, 1.4-3.8) assault by known assailants, life-threatening illness (6.2, 4.6-8.3), death of relatives (5.0, 3.2-7.8) and interpersonal conflicts (22.0, 8.3-58.1).</p> <p>Conclusions Of subjects exposed to traumatic events, only a minority developed PTSD indicating a relationship between characteristics of the exposure and the individual and the onset of PTSD.” (p. 525)</p>
Author	<p>Credentials: Post-doctorate</p> <p>Position and Institution: Department of Psychosomatic Medicine and Psychotherapy, University of Gießen, Gießen Germany; Institute of Epidemiology II, Helmholtz Zentrum München, German Research Centre for Environmental Health, Neuherberg, Germany</p> <p>Publication History in Peer-Reviewed Journals: Moderate</p>
Publication	<p>Type of publication: Scholarly peer-reviewed journal</p> <p>Publisher: Springer Link</p> <p>Other: Social Psychiatry and Psychiatric Epidemiology</p>
Date and Citation History	<p>Date of publication: September 25, 2012</p> <p>Cited By: 30</p>
Stated Purpose or Research Question	<p>“The present study sought to explore the relationship of exposure to a traumatic event and the subsequent onset of Posttraumatic stress disorder by assessing the lifetime frequency of exposure to traumatic life events in a population-based sample and determining the subsequent risk of developing Posttraumatic stress disorder.” (p. 526)</p>
Author’s Conclusion	<p>“This study showed that certain traumatic event characteristics contribute to the onset of a long-lasting stress reaction after an individual’s exposure to an exceptionally threatening situation, but the mechanisms that prevent subjects from developing PTSD are not yet fully understood. Human resilience dictates that a large number of victims will naturally recover from the traumatic event over time without having severe, long-lasting mental health issues.” (p. 531)</p>
Overall Relevance to your EBP Question	<p>Overall Relevance of Article: Moderate to good.</p> <p>Rationale: This article is relevant because it examines the relationship of traumatic events and developing PTSD. It touches on both risk and protective factors in people who have experienced trauma. However, the study is conducted in Germany with all German participants which can reduce some of the external validity, especially considering that we don’t live in Germany.</p>
Overall Quality of Article	<p>Overall Quality of Article: Moderate</p> <p>Rationale: The article is less than 10 years old and the author seems reliable. However, the discussion doesn’t address their own limitations. As it was survey research, it is also hard to determine the accuracy because people might not self-report entirely accurately (especially if they are experiencing avoidance symptoms.)</p>

	Overview of Article
Type of article	Overall Type: Primary Review Specific Type: cross-sectional cohort study
APA Reference	Montgomery, E. (2011). Trauma, exile and mental health in young refugees. <i>Acta Psychiatrica Scandinavica. Supplementum, 124</i> (Supp 440), 1–46. https://doi.org/10.1111/j.1600-0447.2011.01740.x
Abstract	“Objective: To review evidence of trauma and exile-related mental health in young refugees from the Middle East. Method: A review of four empirical studies: i) a qualitative study of 11 children from torture surviving families, ii) a cohort study of 311 3-15-year-old asylum-seeking children, iii) a qualitative study of 14 members of torture surviving families and iv) a follow-up study of 131 11-23-year-old refugees. Results: The reactions of the children were not necessarily post-traumatic stress disorder specific. Seventy-seven per cent suffered from anxiety, sleep disturbance and/or depressed mood at arrival. Sleep disturbance (prevalence 34%) was primarily predicted by a family history of violence. At follow-up, 25.9% suffered from clinically relevant psychological symptoms. Traumatic experiences before arrival and stressful events in exile predicted internalizing behaviour, witnessing violence and frequent school changes in exile predicted externalizing behaviour. School participation, Danish friends, language proficiency and mother's education predicted less long-term psychological problems. Conclusion: Psychological problems are frequent in refugee children, but the extents are reduced over time in exile. Traumatic experience before arrival is most important for the short-term reaction of the children while aspects of life in exile are important for the children's ability to recover from early traumatization” (p.1)
Author	Credentials: PhD, DMSc Position and Institution: Department of Public Health Copenhagen University Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: Acta psychiatrica scandinavica
Date and Citation History	Date of Publication: 2011 Cited By: 136
Stated Purpose or Research Question	“The first aim of this review was to inspect the validity of central concepts such as PTSD and anxiety. We found that the PTSD symptom complex is insufficient when studying refugee children [with] psychological problems” (p. 30)
Author's Conclusion	“Psychological problems are frequent in refugee children, but the extents are reduced over time in exile. Traumatic experience before arrival is most important for the short-term reaction of the children while aspects of life in exile are important for the children's ability to recover from early traumatization. Asylum-seeking children suffer from a high level of psychological problems, but over time in exile, this level is considerably reduced. The children's traumatic background seems only to a limited extent to determine their long-term mental health while exile-related stresses, including discrimination, seem to be of prime importance. The individual perspective on mental health of refugee children needs to be complemented with a perspective focusing on the social life context in exile”(p.1).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Relevance Rationale: This is a good article because it's a qualitative study of 11 children from torture surviving families, ii) a cohort study of 311 3–15-year-old asylum-seeking children, iii) a qualitative study of 14 members of torture surviving families and iv) a follow-up study of 131 11–23-year-old refugees.
Overall Quality of Article	Overall Quality of Article: Good Quality Rationale: This Journal was conduct 2011; this article was about the trauma, exile and young refugee.

	Overview of Article
Type of article	Overall Type: Primary Research Study: Survey quantitative Specific Type: "Collaborative Psychiatric Epidemiology Surveys" (p.2215).
APA Reference	Mclaughlin, K. A., Alvarez, K., Fillbrunn, M., Green, J. G., Jackson, J. S., Kessler, R. C., ... Alegria, M. (2018). Racial/ethnic variation in trauma-related psychopathology in the United States: A population-based study. <i>Psychological Medicine</i> , 49(13), 2215–2226. doi: 10.1017/s0033291718003082
Abstract	"The prevalence of mental disorders among Black, Latino, and Asian adults is lower than among Whites. Factors that explain these differences are largely unknown. We examined whether racial/ethnic differences in exposure to traumatic events (TEs) or vulnerability to trauma-related psychopathology explained the lower rates of psychopathology among racial/ethnic minorities. Methods. We estimated the prevalence of TE exposure and associations with onset of DSM-IV depression, anxiety and substance disorders and with lifetime post-traumatic stress disorder (PTSD) in the Collaborative Psychiatric Epidemiology Surveys, a national sample (N = 13 775) with substantial proportions of Black (35.9%), Latino (18.9%), and Asian Americans (14.9%). Results. TE exposure varied across racial/ethnic groups. Asians were most likely to experience organized violence – particularly being a refugee – but had the lowest exposure to all other TEs. Blacks had the greatest exposure to participation in organized violence, sexual violence, and other TEs, Latinos had the highest exposure to physical violence, and Whites were most likely to experience accidents/injuries. Racial/ethnic minorities had lower odds ratios of depression, anxiety, and substance disorder onset relative to Whites. Neither variation in TE exposure nor vulnerability to psychopathology following TEs across racial/ethnic groups explained these differences. Vulnerability to PTSD did vary across groups, however, such that Asians were less likely and Blacks more likely to develop PTSD following TEs than Whites. Conclusions. Lower prevalence of mental disorders among racial/ethnic minorities does not appear to reflect reduced vulnerability to TEs, with the exception of PTSD among Asians. This highlights the importance of investigating other potential mechanisms underlying racial/ethnic differences in psychopathology"(p.2215).
Author	Credentials: Ph.D. in Clinical Psychology and Chronic Disease Epidemiology Position and Institution: Department of Psychology, Harvard University, MA, USA— Assistant Professor Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer-reviewed Journal Publisher: Cambridge University Press Other: Published Psychological Medicine section
Date and Citation History	Date of publication: 31 October 2018 Cited By: 5
Stated Purpose or Research Question	"We examine racial/ethnic differences in exposure to a wide range of TEs, associations of TEs with the subsequent onset of depression, anxiety, and substance disorders, and conditional risk of PTSD following TE exposure. We expected that Black and Latino respondents would experience the highest exposure to TEs involving interpersonal violence, and that Asians would have the lowest overall levels of TE exposure. We hypothesized that lower TE exposure among Asians and lower vulnerability to TEs among Blacks and Latinos would explain, in part, their lower odds of psychopathology relative to Whites"(p.2216).
Author's Conclusion	"Lower prevalence of lifetime mental disorders among racial/ ethnic minorities does not appear to reflect reduced vulnerability to TEs, with the exception of lower vulnerability to PTSD among Asians" (p.2224).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: This article is important when considering risk factors especially when considering different population. This article provides interesting finding that Asian have lower prevalence of mental health disorder and that blacks experience a higher exposure to TE. It also shows that factors that explain the differences among groups are unknown.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: This article has a large sample size. The article does provide an interesting perspective that difference in prevalence of exposure of TE might explain the psychopathology across racial/ethnic groups. It also examines how prior research produced inconsistent findings. There are many limitations to consider when analysis this article such as bias by racial/ethnicity could contribute to group difference and the TE disorder age-of-onset were assessed retrospectively.

	Overview of Article
Type of article	Overall Type: Primary Research Study: quantitative Specific Type: Survey Research
APA Reference	Overstreet, C., Berenz, E. C., Kendler, K. S., Dick, D. M., & Amstadter, A. B. (2017). Predictors and mental health outcomes of potentially traumatic event exposure. <i>Psychiatry Research</i> , 247, 296-304. DOI: 10.1016/j.psychres.2016.10.047
Abstract	“The aims were two-fold: to examine the prevalence and correlates of lifetime potentially traumatic event (PTE) exposure and to explore the relationships between PTE exposure and mental health outcomes (i.e., trauma related distress, alcohol use quantity and frequency, depression symptoms, and anxiety symptoms) within a large sample of college freshmen. 6120 participants, consisting of three cohorts of incoming freshman at a large southeastern university, completed an online assessment battery measuring a multitude of factors including PTEs, personality, relationships (i.e., parental and peer), and mental health. The majority (81.8%) of participants endorsed experiencing at least one PTE within their lifetime and 39.0% reported at least one interpersonal trauma (i.e., physical assault, sexual assault, other unwanted or uncomfortable sexual situation). The average number of PTE categories endorsed was 1.71 (SD=1.30), and 8.7% of participants reported experiencing four or more separate PTE categories pre-college entry. Female gender and peer deviance were consistently associated with PTE exposure and symptoms of psychopathology. Furthermore, a history of interpersonal PTE exposure was associated with increased alcohol use (i.e., frequency and quantity), trauma related distress, depressive symptoms, and anxiety symptoms. The data demonstrate high prevalence PTE exposure among young adults and the clinical significance of a PTE history” (p. 296).
Author	Credentials: Doctoral student at Virginia Commonwealth University Position and Institution: Virginia Institute for Psychiatric and Behavioral Genetics, Virginia Commonwealth University Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer reviewed journal Publisher: Elsevier Other: Psychiatry Research
Date and Citation History	Date of publication: January 2017 Cited By: 14
Stated Purpose or Research Question	“To examine the prevalence and correlates of lifetime potentially traumatic event (PTE) exposure and to explore the relationships between PTE exposure and mental health outcomes (i.e., trauma related distress, alcohol use quantity and frequency, depression symptoms, and anxiety symptoms) within a large sample of college freshmen”(p. 296).
Author’s Conclusion	“Female gender and peer deviance were consistently associated with PTE exposure and symptoms of psychopathology. Furthermore, a history of interpersonal PTE exposure was associated with increased alcohol use (i.e., frequency and quantity), trauma related distress, depressive symptoms, and anxiety symptoms. The data demonstrate high prevalence PTE exposure among young adults and the clinical significance of a PTE history” (p. 304).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate to Good Rationale: While we have to be careful to focus on the descriptors (not predictive information), this study is relevant to our question because it touches on the prevalence of PTE exposure in a college population and looks at the relationship between social determinants, trauma, and trauma related disorders..
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: This article had a large sample size. It did focus on college students, which reduces some of its generalizability. This study is longitudinal but due to the limitations of the survey, causality is harder to establish because only baseline information is being gathered. As it was survey research, it is also hard to determine the accuracy because people might not self-report entirely accurately (especially if they are experiencing avoidance symptoms.)

	Overview of Article
Type of article	Overall Type: Primary research Specific Type: Survey research
APA Reference	Pabayo, R., Fuller, D., Goldstein, R., Kawachi, I., Gilman, S., Goldstein, R. B., & Gilman, S. E. (2017). Income inequality among American states and the conditional risk of post-traumatic stress disorder. <i>Social Psychiatry & Psychiatric Epidemiology</i> , 52(9), 1195–1204. https://doi.org/10.1007/s00127-017-1413-x
Abstract	“Purpose: Vulnerability to post-traumatic disorder (PTSD) following a traumatic event can be influenced by individual-level as well as contextual factors. Characteristics of the social and economic environment might increase the odds for PTSD after traumatic events occur. One example that has been identified as a potential environmental determinant is income inequality. The purpose of this study is to investigate the association between State-level income inequality and PTSD among adults who have been exposed to trauma. Methods: We used data from the National Epidemiologic Survey on Alcohol and Related Conditions (n = 34,653). Structured diagnostic interviews were administered at baseline (2001–2002) and follow-up (2004–2005). Weighted multi-level logistic regression was used to determine if US State-level income inequality, as measured by the Gini coefficient, was associated with incident episodes of PTSD during the study’s 3-year follow-up period adjusting for individual and state-level covariates. Results: The mean Gini coefficient across states in the NESARC was 0.44 (SD = 0.02) and ranged from 0.39 to 0.53. Of the respondents, 27,638 reported exposure to a traumatic event. Of this sample, 6.9 and 2.3% experienced persistent or recurrent and incident PTSD, respectively. State-level inequality was not associated with increased odds for persistent or recurrent PTSD (OR = 1.02; 95% CI 0.85, 1.22), but was associated with incident PTSD (OR = 1.30, 95% CI 1.04, 1.63). Conclusion: The degree of income inequality in one’s state of residence is associated with vulnerability to PTSD among individuals exposed to traumatic events. Additional work is needed to determine if this association is causal (or alternatively, is explained by other socio-contextual factors associated with income inequality), and if so, what anxiogenic mechanisms explain it.” (p. 1195)
Author	Credentials: PhD, MSc, BSc Position and Institution: School of Public Health University of Alberta, Edmonton, Canada; Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health, Boston, USA Publication History in Peer-Reviewed Journals: Moderate
Publication	Type of publication: Scholarly peer-reviewed journal Publisher: Springer Link Other: Social Psychiatry and Psychiatric Epidemiology
Date and Citation History	Date of publication: June 30, 2017 Cited By: 6
Stated Purpose or Research Question	“In this study we sought to investigate the prospective association between income inequality at the state-level and the conditional risk for PTSD—that is, odds for PTSD following exposure to a traumatic event. We also evaluated whether this likelihood differs between men and women.” (p. 1197)
Author’s Conclusion	“The degree of income inequality in one’s state of residence is associated with vulnerability to PTSD among individuals exposed to traumatic events.” (p. 1195) “These findings underscore the importance of contextual factors for mental health. ... The current study adds to the existing evidence of the association between income inequality and mental health, focusing largely on psychological distress and depression, by investigating the role of income inequality in the odds of PTSD.” (p. 1203)
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: This research sought to understand how income inequality, a social determinant of health, impacts the development of PTSD. This research furthers our knowledge of how impactful health disparities can be and highlights specific risk factors for developing PTSD following a trauma.
Overall Quality of Article	Overall Quality of Article: Good Rationale: This article has a large sample size, which increases its power level. Its sample was also fairly diverse which shows a higher external validity. It’s data was longitudinal, which can help support causation. However, one limitation is that it did not account for other factors impacting income, like social or economic factors relevant to a state. As it was survey research, it is also hard to determine the accuracy because people might not self-report entirely accurately (especially if they are experiencing avoidance symptoms.)

Primary Research Study

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Survey Research
APA Reference	Pabayo, R., Fuller, D., Goldstein, R., Kawachi, I., Gilman, S., Goldstein, R. B., & Gilman, S. E. (2017). Income inequality among American states and the conditional risk of post-traumatic stress disorder. <i>Social Psychiatry & Psychiatric Epidemiology</i> , 52(9), 1195-1204. doi:10.1007/s00127-017-1413-x
Abstract	“Abstract: Purpose: Vulnerability to post-traumatic disorder (PTSD) following a traumatic event can be influenced by individual-level as well as contextual factors. Characteristics of the social and economic environment might increase the odds for PTSD after traumatic events occur. One example that has been identified as a potential environmental determinant is income inequality. The purpose of this study is to investigate the association between State-level income inequality and PTSD among adults who have been exposed to trauma. Methods: We used data from the National Epidemiologic Survey on Alcohol and Related Conditions (n = 34,653). Structured diagnostic interviews were administered at baseline (2001–2002) and follow-up (2004–2005). Weighted multi-level logistic regression was used to determine if US State-level income inequality, as measured by the Gini coefficient, was associated with incident episodes of PTSD during the study’s 3-year follow-up period adjusting for individual and state-level covariates. Results: The mean Gini coefficient across states in the NESARC was 0.44 (SD = 0.02) and ranged from 0.39 to 0.53. Of the respondents, 27,638 reported exposure to a traumatic event. Of this sample, 6.9 and 2.3% experienced persistent or recurrent and incident PTSD, respectively. State-level inequality was not associated with increased odds for persistent or recurrent PTSD (OR = 1.02; 95% CI 0.85, 1.22), but was associated with incident PTSD (OR = 1.30, 95% CI 1.04, 1.63). Conclusion: The degree of income inequality in one’s state of residence is associated with vulnerability to PTSD among individuals exposed to traumatic events. Additional work is needed to determine if this association is causal (or alternatively, is explained by other socio-contextual factors associated with income inequality), and if so, what anxiogenic mechanisms explain it” (p. 1195).
Author	Credentials: PhD, MSc, BSc Position and Institution: Assistant Professor at University of Alberta School of Public Health Publication History in Peer-Reviewed Journals: Moderate
Publication	Type of publication: Scholarly peer-reviewed journal Publisher: Springer Nature Other: Journal of Social Psychiatry and Psychiatric Epidemiology
Date and Citation History	Date of publication: June 30 2017 Cited By: 6
Stated Purpose or Research Question	“In this study we sought to investigate the prospective association between income inequality at the state-level and the conditional risk for PTSD—that is, odds for PTSD following exposure to a traumatic event. We also evaluated whether this likelihood differs between men and women” (p. 1197).
Author’s Conclusion	“The degree of income inequality in one’s state of residence is associated with vulnerability to PTSD among individuals exposed to traumatic events. Additional work is needed to determine if this association is causal (or alternatively, is explained by other socio-contextual factors associated with income inequality), and if so, what anxiogenic mechanisms explain it” (p. 1195).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: This study is relevant to our EBP question in terms of disparities and PTSD. Low-income is linked to increased rates of PTSD, however this study does not provide causal results.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: Study is within 2 years and the sample size is very large.

	Overview of Article
Type of article	Overall Type: Primary Research Study -- Survey Research (quantitative) Specific Type: Survey and descriptive research
APA Reference	Perrin, M., Vandeleur, C. L., Castelao, E., Rothen, S., Glaus, J., Vollenweider, P., & Preisig, M. (2014). Determinants of the development of post-traumatic stress disorder, in the general population. <i>Social Psychiatry & Psychiatric Epidemiology</i> , 49(3), 447–457. DOI: 10.1007/s00127-013-0762-3
Abstract	“Purpose: To assess (1) the lifetime prevalence of exposure both to trauma and post-traumatic stress disorder (PTSD); (2) the risk of PTSD by type of trauma; and (3) the determinants of the development of PTSD in the community. Methods: The Diagnostic Interview for Genetic Studies was administered to a random sample of an urban area (N = 3,691). Results: (1) The lifetime prevalence estimates of exposure to trauma and PTSD were 21.0 and 5.0%; respectively, with a twice as high prevalence of PTSD in women compared to men despite a similar likelihood of exposure in the two sexes; (2) Sexual abuse was the trauma involving the highest risk of PTSD; (3) The risk of PTSD was most strongly associated with sexual abuse followed by preexisting bipolar disorder, alcohol dependence, antisocial personality, childhood separation anxiety disorder, being victim of crime, witnessing violence, Neuroticism and Problem-focused coping strategies. After adjustment for these characteristics, female sex was no longer found to be significantly associated with the risk of PTSD. Conclusions: The risk for the development of PTSD after exposure to traumatic events is associated with several factors including the type of exposure, preexisting psychopathology, personality features and coping strategies which independently contribute to the vulnerability to PTSD.” (p. 447)
Author	Credentials: N/A Position and Institution: Department of Psychiatry, Center for Research in Psychiatric Epidemiology and Psychopathology (CEPP) at University Hospital of Lausanne, Prilly, Switzerland Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Peer-reviewed Journal Publisher: Springer Link Other: Journal of Social Psychiatry and Psychiatric Epidemiology
Date and Citation History	Date of publication: March 2014 Cited By: 126
Stated Purpose or Research Question	“Using a population-based sample, the aims of the present paper were to determine: (1) the lifetime prevalence of exposure both to traumatic events and PTSD, and (2) simultaneously assess the effects of a large array of factors potentially involved in the development of PTSD including socio-demographic characteristics, the specific type of exposure, preexisting psychiatric disorders, family history of disorders, personality features and coping style.” (p. 450)
Author’s Conclusion	“The risk for the development of PTSD after exposure to traumatic events is associated with several factors including the type of exposure, preexisting psychopathology, personality features and coping strategies which independently contribute to the vulnerability to PTSD” (p. 447).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: This study discusses several social determinants that impact developing PTSD, which goes along with our question. However, the participant sample is from Switzerland and 92% Caucasian, which reduces its’ external validity.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: This study has a large sample and uses an effective statistical analysis software. Limitations include using a low reliability personality measure and it being cross-sectional, which prohibits the ability to determine causation. As stated above, it also has a lowered external validity due to its participants. As it was survey research, it is also hard to determine the accuracy because people might not self-report entirely accurately (especially if they are experiencing avoidance symptoms.)

	Overview of Article
Type of article	Overall Type: Primary research Study Specific Type: Survey and descriptive research
APA Reference	Perrin, M., Vandeleur, C. L., Castelao, E., Rothen, S., Glaus, J., Vollenweider, P., & Preisig, M. (2014). Determinants of the development of post-traumatic stress disorder, in the general population. <i>Social Psychiatry & Psychiatric Epidemiology</i> , 49 (3), 447-457.
Abstract	“Purpose: To assess (1) the lifetime prevalence of exposure both to trauma and post-traumatic stress disorder (PTSD); (2) the risk of PTSD by type of trauma; and (3) the determinants of the development of PTSD in the community. Methods: The Diagnostic Interview for Genetic Studies was administered to a random sample of an urban area (N = 3,691). Results : (1) The lifetime prevalence estimates of exposure to trauma and PTSD were 21.0 and 5.0 %; respectively, with a twice as high prevalence of PTSD in women compared to men despite a similar likelihood of exposure in the two sexes; (2) Sexual abuse was the trauma involving the highest risk of PTSD; (3) The risk of PTSD was most strongly associated with sexual abuse followed by preexisting bipolar disorder, alcohol dependence, antisocial personality, childhood separation anxiety disorder, being victim of crime, witnessing violence, Neuroticism and Problem-focused coping strategies. After adjustment for these characteristics, female sex was no longer found to be significantly associated with the risk of PTSD. Conclusions: The risk for the development of PTSD after exposure to traumatic events is associated with several factors including the type of exposure, preexisting psychopathology, personality features and coping strategies which independently contribute to the vulnerability to PTSD” (p. 447).
Author	Credentials: Unknown Position and Institution: Department of Psychiatry, Center for Research in Psychiatric Epidemiology and Psychopathology (CEPP), University Hospital of Lausanne Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: Springer Nature Other: Journal of Social Psychiatry and Psychiatric Epidemiology
Date and Citation History	Date of publication: September 11 2013 Cited By: 126
Stated Purpose or Research Question	“Using a population-based sample, the aims of the present paper were to determine: (1) the lifetime prevalence of exposure both to traumatic events and PTSD, and (2) simultaneously assess the effects of a large array of factors potentially involved in the development of PTSD including socio-demographic characteristics, the specific type of exposure, preexisting psychiatric disorders, family history of disorders, personality features and coping style” (p. 450).
Author’s Conclusion	“The risk for the development of PTSD after exposure to traumatic events is associated with several factors including the type of exposure, preexisting psychopathology, personality features and coping strategies which independently contribute to the vulnerability to PTSD” (p. 447).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: Discusses several risk factors for developing PTSD, however the participant sample is from Switzerland and 92% Caucasian, which can reduce external validity.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: Study has a large sample, along with using an effective statistical analysis software. Limitations include using a low reliability personality measure, along with this study being cross-sectional, therefore causation cannot be determined.

	Overview of Article
Type of article	Overall Type: Survey Research Specific Type: Empirical Study, Quantitative Study
APA Reference	Pieterse, A., Carter, R., Evans, S., & Walter, R. (2010). An exploratory examination of the associations among racial and ethnic discrimination, racial climate, and trauma-related symptoms in a college student population. <i>Journal of Counseling Psychology</i> , 57(3), 255-263.
Abstract	“In this study, we examined the association among perceptions of racial and/or ethnic discrimination, racial climate, and trauma-related symptoms among 289 racially diverse college undergraduates. Study measures included the Perceived Stress Scale, the Perceived Ethnic Discrimination Questionnaire, the Posttraumatic Stress Disorder Checklist-Civilian Version, and the Racial Climate Scale. Results of a multivariate analysis of variance (MANOVA) indicated that Asian and Black students reported more frequent experiences of discrimination than did White students. Additionally, the MANOVA indicated that Black students perceived the campus racial climate as being more negative than did White and Asian students. A hierarchical regression analysis showed that when controlling for generic life stress, perceptions of discrimination contributed an additional 10% of variance in trauma-related symptoms for Black students, and racial climate contributed an additional 7% of variance in trauma symptoms for Asian students.” (p. 255)
Author	Credentials: PhD Position and Institution: University at Albany, State University of New York Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly, peer-reviewed Publisher: American Psychological Association
Date and Citation History	Date of publication: 2010 Cited By: 170
Stated Purpose or Research Question	“Our primary research question focused on whether racial and/or ethnic discrimination would be predictive of trauma-related symptoms.” (p. 256)
Author’s Conclusion	“The findings offer tentative support for the suggestion that experiences of racial and/or ethnic discrimination can be viewed from the perspective of psychological trauma.” (p. 260)
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: The population is directly relevant to the EBP question. Perception as racism as trauma is significant to prevalence.
Overall Quality of Article	Overall Quality of Article: Good Rationale: Established author. High impact. Small sample size, but reflects outcomes of similar studies.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Survey Research
APA Reference	Rebbe, R., Nurius, P. S., Courtney, M. E., & Ahrens, K. R. (2018). Adverse childhood experiences and young adult health outcomes among youth aging out of foster care. <i>Academic Pediatrics, 18</i> (5), 502–509. doi:10.1016/j.acap.2018.04.011
Abstract	“OBJECTIVE: To provide an updated prevalence estimate of adverse childhood experiences (ACEs) in the United States using a large, diverse, and representative sample of adults in 23 states. DESIGN, SETTING, AND PARTICIPANTS: Data were collected through the Behavioral Risk Factor Surveillance System (BRFSS), an annual, nationally representative telephone survey on health-related behaviors, health conditions, and use of preventive services, from January 1, 2011, through December 31, 2014. Twenty-three states included the ACE assessment in their BRFSS. Respondents included 248 934 noninstitutionalized adults older than 18 years. Data were analyzed from March 15 to April 25, 2017. MAIN OUTCOMES AND MEASURES: The ACE module consists of 11 questions collapsed into the following 8 categories: physical abuse, emotional abuse, sexual abuse, household mental illness, household substance use, household domestic violence, incarcerated household member, and parental separation or divorce. Lifetime ACE prevalence estimates within each subdomain were calculated (range, 1.00-8.00, with higher scores indicating greater exposure) and stratified by sex, age group, race/ethnicity, annual household income, educational attainment, employment status, sexual orientation, and geographic region. RESULTS: Of the 214 157 respondents included in the sample (51.51% female), 61.55% had at least 1 and 24.64% reported 3 or more ACEs. Significantly higher ACE exposures were reported by participants who identified as black (mean score, 1.69; 95% CI, 1.62-1.76), Hispanic (mean score, 1.80; 95% CI, 1.70-1.91), or multiracial (mean score, 2.52; 95% CI, 2.36-2.67), those with less than a high school education (mean score, 1.97; 95% CI, 1.88-2.05), those with income of less than \$15 000 per year (mean score, 2.16; 95% CI, 2.09-2.23), those who were unemployed (mean score, 2.30; 95% CI, 2.21-2.38) or unable to work (mean score, 2.33; 95% CI, 2.25-2.42), and those identifying as gay/lesbian (mean score 2.19; 95% CI, 1.95-2.43) or bisexual (mean score, 3.14; 95% CI, 2.82-3.46) compared with those identifying as white, those completing high school or more education, those in all other income brackets, those who were employed, and those identifying as straight, respectively. Emotional abuse was the most prevalent ACE (34.42%; 95% CI, 33.81%-35.03%), followed by parental separation or divorce (27.63%; 95% CI, 27.02%-28.24%) and household substance abuse (27.56%; 95% CI, 27.00%-28.14%). CONCLUSIONS AND RELEVANCE: This report demonstrates the burden of ACEs among the US adult population using the largest and most diverse sample to date. These findings highlight that childhood adversity is common across sociodemographic characteristics, but some individuals are at higher risk of experiencing ACEs than others. Although identifying and treating ACE exposure is important, prioritizing primary prevention of ACEs is critical to improve health and life outcomes throughout the lifespan and across generations” (p. 502).
Author	Credentials: PhD, MSW, EdM Position and Institution: Assistant Professor, University of Southern California School of Social Work Publication History in Peer-Reviewed Journals: 7 peer-reviewed publications
Publication	Type of publication: scholarly peer-reviewed journal Publisher: Academic Pediatric Association Other: Official journal of the Academic Pediatric Association
Date and Citation History	Date of Publication: 2018 Cited By: 3
Stated Purpose or Research Question	“[T]o evaluate whether these patterns of adversity exposures are associated with differences in physical and sexual health risk outcomes over time among youth aging out of the foster care system. We included markers of overall health as well as several specific physical and sexual health risk indicators which: 1) have been previously found to be disproportionately represented among youth aging out of foster care, 1–2 and/or 2) have potential to become chronic health conditions that affect lifelong quality of life” (p. 3).
Author’s Conclusion	“[T]his study both demonstrates health erosion among child welfare system-involved youth even for those with the lowest levels of exposure relative to general population youth and highlights specific subgroups of youth in care who are at risk for criminal and economic outcomes (Environmental Class) and physical and sexual health outcomes (Complex Class)” (p. 8).
Overall Relevance to your EBP Question	Overall Relevance of Article: Poor Relevance Rationale: Although this study assesses differences in health risk outcomes for youth aging out of foster care, it does not directly apply to our EBP question as it focuses on prediction of health trajectories instead of describing health inequities.
Overall Quality of Article	Overall Quality of Article: Moderate Quality Rationale: Author, journal, and publisher are credible. However, the author has a low citation history, which could be attributed to having been published last year.

Primary Research Study

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Longitudinal Epidemiological Study
APA Reference	Stein, M. B., Höfler, M., Perkonigg, A., Lieb, R., Pfister, H., Maercker, A., & Wittchen, H. (2002). Patterns of incidence and psychiatric risk factors for traumatic events. <i>International Journal of Methods in Psychiatric Research</i> , 11(4), 143-153. doi:http://dx.doi.org/10.1002/mpr.132
Abstract	<p>“Individual differences are thought to influence the propensity for exposure to trauma and the subsequent development of post-traumatic stress disorder (PTSD) symptoms. Prior research has identified pre-existing mood disorders as one such individual risk factor for traumatic events as well as for PTSD. The present study reports the incidence of traumatic events (and PTSD) and examines psychiatric risk factors for trauma exposure in a prospective community sample. Data come from a prospective, longitudinal epidemiological study of adolescents and young adults (age 14–24) in Munich, Germany. Respondent diagnoses (N = 2,548) at baseline and at follow-up 34–50 months later were considered. Psychiatric diagnoses at baseline were examined as predictors of qualifying trauma. Baseline prevalence of persons having experienced trauma meeting DSM-IV A1 and A2 criteria (‘qualifying trauma’) was 16.7%; during the follow-up period, 20.3% persons had experienced incident (new) qualifying traumata. The prevalence of PTSD, including subthreshold cases, at baseline was 5.6%; by the end of the follow-up period this had increased to 10.3%. Presence of an anxiety disorder at baseline predicted exposure to qualifying traumas during the follow-up period (adjusted ORs ranging from 1.36 for any trauma type to 3.00 for sexual trauma); this association was apparently due to an increased tendency to report events as being particularly horrific (meeting A2 criteria). In contrast, presence of illicit drug use predicted the onset of traumatic events (specifically assaultive and sexual trauma) meeting at least A1 criteria, suggesting an actual exposure to these types of traumatic events for this class of disorders. In this prospective study of urban adolescents and young adults, certain classes of pre-existing psychiatric disorders (most notably anxiety disorders and illicit drug use disorders) were associated with increased risk for qualifying traumatic events. The mechanisms by which premorbid psychiatric disorders promote exposure to traumatic events are unknown. Better understanding of these pathways may lead to novel strategies for primary and secondary prevention of PTSD” (p. 143).</p>
Author	<p>Credentials: MD, MPH Position and Institution: Professor, Clinical Researcher at the University of California San Diego and a staff Psychiatrist at the VA San Diego Healthcare System Publication History in Peer-Reviewed Journals: Extensive</p>
Publication	<p>Type of publication: Scholarly peer-reviewed journal Publisher: International Journal of Methods in Psychiatric Research</p>
Date and Citation History	<p>Date of Publication: 2002 Cited By: 58</p>
Stated Purpose or Research Question	<p>“The purpose of the present study was to prospectively examine the role of pre-existing mental disorders as risk factors for traumatic events in a representative community sample of adolescents and young adults. As part of this investigation, we will report incidence rates of traumatic events and PTSD in this sample.” (p. 144)</p>
Author’s Conclusion	<p>“Our findings suggest that persons with certain pre-existing mental disorders – anxiety disorders and illicit drug-use disorders, in particular, are at increased risk for exposure to traumatic stressors (and/or increased likelihood of experiencing traumatic events as inherently life threatening). The mechanism by which these premorbid psychiatric disorders promote exposure to traumatic events (that have the potential to lead to PTSD) is unclear.” (p.151)</p>
Overall Relevance to your EBP Question	<p>Overall Relevance of Article: Moderate Relevance Rationale: This article does look at patterns of incidence and psychiatric risk factors, however since the publication is a longitudinal study from 2002 it may not reflect current research.</p>
Overall Quality of Article	<p>Overall Quality of Article: Moderate Quality Rationale: Established author. Reputable journal and author. Publication is not within the last 10 years.</p>

Primary Research Study

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Predictive study
APA Reference	Shalev, A. Y., Gevonden, M., Ratanatharathorn, A., Laska, E., van der Mei, W. F., Qi, W. International consortium to predict PTSD (2019). Estimating the risk of PTSD in recent trauma survivors: results of the international consortium to predict PTSD (ICPP). <i>World Psychiatry: Official Journal of the World Psychiatric Association (WPA)</i> , 18(1), 77–87. doi:10.1002/wps.20608
Abstract	“A timely determination of the risk of post-traumatic stress disorder (PTSD) is a prerequisite for efficient service delivery and prevention. We provide a risk estimate tool allowing a calculation of individuals’ PTSD likelihood from early predictors. Members of the International Consortium to Predict PTSD (ICPP) shared individual participants’ item-level data from ten longitudinal studies of civilian trauma survivors admitted to acute care centers in six countries. Eligible participants (N=2,473) completed an initial clinical assessment within 60 days of trauma exposure, and at least one follow-up assessment 4-15 months later. The Clinician-Administered PTSD Scale for DSM-IV (CAPS) evaluated PTSD symptom severity and diagnostic status at each assessment. Participants’ education, prior lifetime trauma exposure, marital status and socio-economic status were assessed and harmonized across studies. The study’s main outcome was the likelihood of a follow-up PTSD given early predictors. The prevalence of follow-up PTSD was 11.8% (9.2% for male participants and 16.4% for females). A logistic model using early PTSD symptom severity (initial CAPS total score) as a predictor produced remarkably accurate estimates of follow-up PTSD (predicted vs. raw probabilities: $r=0.976$). Adding respondents’ female gender, lower education, and exposure to prior interpersonal trauma to the model yielded higher PTSD likelihood estimates, with similar model accuracy (predicted vs. raw probabilities: $r=0.941$). The current model could be adjusted for other traumatic circumstances and accommodate risk factors not captured by the ICPP (e.g., biological, social). In line with their use in general medicine, risk estimate models can inform clinical choices in psychiatry. It is hoped that quantifying individuals’ PTSD risk will be a first step towards systematic prevention of the disorder” (p. 77)
Author	Credentials: MD Position and Institution: Professor of Psychiatry, NYU Grossman School of Medicine Publication History in Peer-Reviewed Journals: extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: World Psychiatric Association Other: Official journal of the World Psychiatric Association
Date and Citation History	Date of Publication: 2019 Cited By: 10
Stated Purpose or Research Question	“[W]e used the ICPP IPD to develop a prediction function that estimates the probability of PTSD given a set of early, observable risk indicators. Following replicated demonstrations of their predictive yield in classification models, we positioned PTSD symptoms as a key predictor, subsequently enriching the predictive models by including other previously documented and clinically-obtainable risk indicators available in the ICPP dataset (e.g., gender, trauma type, lifetime trauma history)” (p. 78).
Author’s Conclusion	“The results of this study demonstrate that the probability of meeting PTSD diagnostic criteria 4 to 15 months after acute care admission is reliably modeled by a logistic function of initial PTSD symptom severity. Added to this model, female gender, having less than secondary education, and prior interpersonal trauma were associated with higher likelihood of endpoint PTSD” (p. 84).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Relevance Rationale: The article looks at predictive factors and risk indicators for PTSD and addresses differences in gender and education. These relate to the EBP topic, however, they are missing information on health disparities.
Overall Quality of Article	Overall Quality of Article: Good Quality Rationale: Credible author, journal, and publication. Citation history is small, however, this is explained by having been published this year.

	Overview of Article
Type of article	Overall Type: Review of Research Specific Type: Systematic Review
APA Reference	Greene, T., Neria, Y., & Gross, R. (2016). Prevalence, detection and correlates of PTSD in the primary care setting: A systematic review. <i>Journal of Clinical Psychology in Medical Settings</i> , 23(2), 160-180. doi: http://dx.doi.org.pearl.stkate.edu/10.1007/s10880-016-9449-8
Abstract	“Abstract: Research suggests that posttraumatic stress disorder (PTSD) is common, debilitating and frequently associated with comorbid health conditions, including poor functioning, and increased health care utilization. This article systematically reviewed the empirical literature on PTSD in primary care settings, focusing on prevalence, detection and correlates. Twenty-seven studies were identified for inclusion. Current PTSD prevalence in primary care patients ranged widely between 2 % to 39 %, with significant heterogeneity in estimates explained by samples with different levels of trauma exposure. Six studies found detection of PTSD by primary care physicians (PCPs) ranged from 0 % to 52 %. Studies examining associations between PTSD and sociodemographic variables yielded equivocal results. High comorbidity was reported between PTSD and other psychiatric disorders including depression and anxiety, and PTSD was associated with functional impairment or disability. Exposure to multiple types of trauma also raised the risk of PTSD. While some studies indicated that primary care patients with PTSD report higher levels of substance and alcohol abuse, somatic symptoms, pain, health complaints, and healthcare utilization, other studies did not find these associations. This review proposes that primary care settings are important for the early detection of PTSD, which can be improved through indicated screening and PCP education” (p.160).
Author	Credentials: PhD, MPH Position and Institution: Professor at the University of Haifa, Israel Publication History in Peer-Reviewed Journals: Moderate
Publication	Type of publication: Scholarly Peer Reviewed Publisher: Clinical Psychology in Medical Settings Other: Journal of Clinical Psychology in Medical Settings
Date and Citation History	Date of Publication: 2016 Cited By: 61
Stated Purpose or Research Question	“The current study conducts a systematic literature review that seeks to answer three questions: i) what is the prevalence of PTSD in primary care settings?; ii) is PTSD well-detected by PCPs?; and iii) what are the correlates of PTSD in primary care patients?” (p.161).
Author’s Conclusion	“This review highlights the issue of the high rates of undetected PTSD cases in primary care” (p.176).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Relevance Rationale: This article highlights the prevalence of PTSD in primary care settings, but it also brings attention to the low rates of detection by primary care providers, so this may be more closely linked to assessment validity.
Overall Quality of Article	Overall Quality of Article: Good Quality Rationale: This article was published by an established author from a reputable journal within the last 10 years.

	Overview of Article
Type of article	Overall Type: Primary Research Specific Type: Epidemiological research/survey
APA Reference	Goldstein, R., Smith, S., Chou, S., Saha, T., Jung, J., Zhang, H., . . . Grant, B. F. (2016). The epidemiology of DSM-5 posttraumatic stress disorder in the united states: Results from the national epidemiologic survey on alcohol and related conditions-III. <i>Social Psychiatry & Psychiatric Epidemiology</i> , 51(8), 1137-1148. doi:10.1007/s00127-016-1208-5
Abstract	“Abstract: Objectives: To present current, nationally representative US findings on the past-year and lifetime prevalences, sociodemographic correlates, psychiatric comorbidity, associated disability, and treatment of DSM-5 posttraumatic stress disorder (PTSD). Methods: Face-to-face interviews with 36,309 adults in the 2012–2013 National Epidemiologic Survey on Alcohol and Related Conditions-III. PTSD, alcohol and drug use disorders, and selected mood, anxiety, and personality disorders were assessed using the Alcohol Use Disorder and Associated Disabilities Interview Schedule-5. Results: Past-year and lifetime prevalences were 4.7 and 6.1 %, higher for female, white, Native American, younger, and previously married respondents, those with high school education and lower incomes, and rural residents. PTSD was significantly associated with a broad range of substance use, mood, anxiety, and personality disorders, and past-month disability. Among respondents with lifetime PTSD, 59.4 % sought treatment; an average of 4.5 years elapsed from disorder onset to first treatment. Conclusion: DSM-5 PTSD is prevalent, highly comorbid, disabling, and associated with delayed help seeking. Additional research is needed to elucidate relationships identified herein, estimate PTSD-related costs, investigate hypotheses regarding etiology, course, and treatment, and support decisions about resource allocation to service delivery and research. Initiatives are needed to destigmatize PTSD, educate the public about its treatment, and encourage affected individuals to seek help” (p. 1137).
Author	Credentials: PhD, MPH Position and Institution: Social and Behavioral Sciences Branch, Division of Intramural Population Health Research, Eunice Kennedy Shriver National Institute of Child Health and Human Development, National Institutes of Health. Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer-reviewed Publisher: Springer Nature Other: The National Epidemiologic Survey on Alcohol and Related Conditions-III
Date and Citation History	Date of publication: April 22 2016 Cited By: 127
Stated Purpose or Research Question	“Accordingly, we report the first nationally representative findings on prevalences, sociodemographic correlates, psychiatric comorbidity, disability, and treatment of DSM5 PTSD from the 2012–2013 National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARCIII) [29]” (p. 1138).
Author’s Conclusion	“In conclusion, consistent with studies based on prior diagnostic systems, NESARC-III findings identify DSM-5 PTSD as a prevalent, highly comorbid, and disabling condition affecting millions of Americans and associated with long delays in treatment seeking” (p. 1146).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: EBP question aims to examine prevalence of trauma, which was one of the main goals of this research. However, it also focuses on the after effects of experiencing trauma which is not what our group is investigating.
Overall Quality of Article	Overall Quality of Article: Good Rationale: Reputable author with over 100 publications in epidemiology. Article is within the past 10 years.

	Overview of Article
Type of article	Overall Type: Review of Research Study & Conceptual Article Specific Type: Scoping Review and Framework
APA Reference	Mikhail, J. N., Nemeth, L. S., Mueller, M., Pope, C., & NeSmith, E. G. (2018). The social determinants of trauma: A trauma disparities scoping review and framework. <i>Journal of Trauma Nursing</i> , 25(5), 266-281. doi:10.1097/JTN.0000000000000388
Abstract	“The drivers of trauma disparities are multiple and complex; yet, understanding the causes will direct needed interventions. The aims of this article are to (1) explore how the injured patient, his or her social environment, and the health care system interact to contribute to trauma disparities and examine the evidence in support of interventions and (2) develop a conceptual framework that captures the socioecological context of trauma disparities. Using a scoping review methodology, articles were identified through PubMed and CINAHL between 2000 and 2015. Data were extracted on the patient population, social determinants of health, and interventions targeting trauma disparities and violence. Based on the scoping review of 663 relevant articles, we inductively developed a conceptual model, The Social Determinants of Trauma: A Trauma Disparities Framework, based on the categorization of articles by: institutional power (n = 9), social context—place (n = 117), discrimination experiences (n = 59), behaviors and comorbidities (n = 57), disparities research (n = 18), and trauma outcomes (n = 85). Intervention groupings included social services investment (n = 54), patient factors (n = 88), hospital factors (n = 27), workforce factors (n = 31), and performance improvement (n = 118). This scoping review produced a needed taxonomy scheme of the drivers of trauma disparities and known interventions that in turn informed the development of The Social Determinants of Trauma: A Trauma Disparities Framework. This study adds to the trauma disparities literature by establishing social context as a key contributor to disparities in trauma outcomes and provides a road map for future trauma disparities research.” (p. 266)
Author	Credentials: PhD, MBA, RN Position and Institution: Program Manager, Michigan Trauma Quality Improvement Program; Department of Surgery, University of Michigan, Ann Arbor Publication History in Peer-Reviewed Journals: Moderate
Publication	Type of publication: Scholarly peer-reviewed journal Publisher: Wolters Kluwer Other: Journal of Trauma Nursing
Date and Citation History	Date of publication: September 1, 2018 Cited By: 2
Stated Purpose or Research Question	“The research question guiding this review was the following: What are the drivers of trauma disparities and violence, and what are the potential interventions that determine future research priorities?” (p. 268)
Author’s Conclusion	“This study adds to the trauma disparities literature by establishing social context as a key contributor to disparities in trauma outcomes and provides a road map for future trauma disparities research.” (p. 266)
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: The article discusses the importance of health disparities' role in trauma and how a lot of trauma can be explained and/or prevented through a public health stance. It creates a conceptual framework for understanding the social determinants of trauma from which easily to comprehend all of the factors that go into trauma. It does focus some on trauma surgery issues near the end but the overall framework developed is extremely relevant to our question.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: As it is a scoping review, data synthesis is limited and many of the classifications and themes they developed could be subject. However, it does find similar themes to other research so these seems to be trustworthy. This scoping review looked at 663 studies and included a broad range of categories/key-terms when searching.

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Survey Research
APA Reference	McLaughlin, K. A., Koenen, K. C., Bromet, E. J., Karam, E. G., Liu, H., Petukhova, M., ... Kessler, R. C. (2017). Childhood adversities and post-traumatic stress disorder: evidence for stress sensitisation in the World Mental Health Surveys. <i>The British Journal of Psychiatry: The Journal of Mental Science</i> , 211(5), 280–288. doi:10.1192/bjp.bp.116.197640
Abstract	“Background: Although childhood adversities are known to predict increased risk of post-traumatic stress disorder (PTSD) after traumatic experiences, it is unclear whether this association varies by childhood adversity or traumatic experience types or by age. Aims: To examine variation in associations of childhood adversities with PTSD according to childhood adversity types, traumatic experience types and life-course stage. Method: Epidemiological data were analysed from the World Mental Health Surveys (n = 27 017). Results: Four childhood adversities (physical and sexual abuse, neglect, parent psychopathology) were associated with similarly increased odds of PTSD following traumatic experiences (odds ratio (OR) = 1.8), whereas the other eight childhood adversities assessed did not predict PTSD. Childhood adversity-PTSD associations did not vary across traumatic experience types, but were stronger in childhood-adolescence and early-middle adulthood than later adulthood. Conclusions: Childhood adversities are differentially associated with PTSD, with the strongest associations in childhood-adolescence and early-middle adulthood. Consistency of associations across traumatic experience types suggests that childhood adversities are associated with generalised vulnerability to PTSD following traumatic experiences.” (p. 280)
Author	Credentials: Ph.D. Position and Institution: Assistant Professor of Psychology, Harvard University Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: Royal College of Psychiatrists Other: professional organization for psychiatrists
Date and Citation History	Date of Publication: 2017 Cited By: 31
Stated Purpose or Research Question	“In the current study, we analyse the general population epidemiological data in the World Health Organization (WHO) World Mental Health (WMH) Surveys, a cross-national series of community epidemiological surveys of the prevalence and correlates of common mental disorders, to examine whether childhood adversities are associated with increased risk of PTSD after exposure to traumatic events” (p. 3).
Author’s Conclusion	“These results build on a growing body of evidence indicating that early experiences of adversity increase vulnerability to psychopathology following stressors later in development and suggest that childhood adversities involving child maltreatment and parental psychopathology are associated with heightened risk for PTSD following a traumatic event” (p. 8).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Relevance Rationale: This article analyzes epidemiology data to examine the relationship between adverse childhood experiences and PTSD, but it does not address specific populations.
Overall Quality of Article	Overall Quality of Article: Good Quality Rationale: The review was conducted within the last 5 years by highly credible authors via a professional publication. Citation history is not extensive.

	Overview of Article
Type of article	Overall Type: Review of research Specific Type: Systematic review
APA Reference	Oh, D.L., Jerman, P., Silvério Marques, S. et al. (2018). Systematic review of pediatric health outcomes associated with childhood adversity. <i>BMC Pediatrics</i> , 18, 83. doi:10.1186/s12887-018-1037-7
Abstract	“Early detection of and intervention in childhood adversity has powerful potential to improve the health and well-being of children. A systematic review was conducted to better understand the pediatric health outcomes associated with childhood adversity. PubMed, PsycArticles, and CINAHL were searched for relevant articles. Longitudinal studies examining various adverse childhood experiences and biological health outcomes occurring prior to age 20 were selected. Mental and behavioral health outcomes were excluded, as were physical health outcomes that were a direct result of adversity (i.e. abusive head trauma). Data were extracted and risk of bias was assessed by 2 independent reviewers. After identifying 15940 records, 35 studies were included in this review. Selected studies indicated that exposure to childhood adversity was associated with delays in cognitive development, asthma, infection, somatic complaints, and sleep disruption. Studies on household dysfunction reported an effect on weight during early childhood, and studies on maltreatment reported an effect on weight during adolescence. Maternal mental health issues were associated with elevated cortisol levels, and maltreatment was associated with blunted cortisol levels in childhood. Furthermore, exposure to childhood adversity was associated with alterations of immune and inflammatory response and stress-related accelerated telomere erosion. Childhood adversity affects brain development and multiple body systems, and the physiologic manifestations can be detectable in childhood. A history of childhood adversity should be considered in the differential diagnosis of developmental delay, asthma, recurrent infections requiring hospitalization, somatic complaints, and sleep disruption. The variability in children’s response to adversity suggests complex underlying mechanisms and poses a challenge in the development of uniform diagnostic guidelines. More large longitudinal studies are needed to better understand how adversity, its timing and severity, and the presence of individual genetic, epigenetic, and protective factors affects children’s health and development.” (p. 1)
Author	Credentials: N/A. Position and Institution: Center for Youth Wellness, San Francisco, CA Publication History in Peer-Reviewed Journals: Limited
Publication	Type of publication: Scholarly peer-reviewed Publisher: BioMed Central Other: Center for Youth and Wellness https://centerforyouthwellness.org/our-story/
Date and Citation History	Date of publication: 2018 Cited By: 42
Stated Purpose or Research Question	“The present systematic review, therefore, was focused on longitudinal studies in children to better understand the biological mechanisms linking exposure to childhood adversity with pediatric health outcomes” (p. 2)
Author’s Conclusion	“... adds to the growing evidence on the relationship between childhood adversity and children’s health. In particular, this review provides support for two important concepts: 1. Childhood adversity affects brain development and multiple body systems, and the physiologic manifestations are detectable in childhood.... The variability in children’s response to adversity suggests complex underlying mechanisms, including the timing and severity of adversity, the experience of cumulative adversity, and the presence of protective factors (i.e. resilience, genetic and epigenetic constitution, individual socioeconomic status) that mitigate or exacerbate the impact of the exposure.” (p. 16)
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate relevance Rationale: While this article does provide good background information about links between adverse childhood events and delays in cognitive development and risk of childhood illness, it provides little specific information about epidemiology.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: Credentials of the author are unclear, but sound research methods and large sample size. Recent publication.

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Critical review
APA Reference	Palma-Gudiel, H., Córdova-Palomera, A., Leza, J., & Fañanás, L. (2015). Glucocorticoid receptor gene (NR3C1) methylation processes as mediators of early adversity in stress-related disorders causality: A critical review. <i>Neuroscience and Biobehavioral Reviews</i> , 55, 520-535. doi.org/10.1016/j.neubiorev.2015.05.016
Abstract	“Early life stress (ELS) is a known risk factor for suffering psychopathology in adulthood. The hypothalamic–pituitary–adrenal (HPA) axis has been described to be deregulated in both individuals who experienced early psychosocial stress and in patients with a wide range of psychiatric disorders. The NR3C1 gene codes for the glucocorticoid receptor, a key element involved in several steps of HPA axis modulation. In this review, we gather existing evidence linking NR3C1 methylation pattern with either ELS or psychopathology. We summarize that several types of ELS have been frequently associated with NR3C1 hypermethylation whereas hypomethylation has been continuously found to be associated with post-traumatic stress disorder. In light of the reported findings, the main concerns of ongoing research in this field are the lack of methodological consensus and selection of CpG sites. Further studies should target individual CpG site methylation assessment focusing in biologically relevant areas such as transcription factor binding regions whereas widening the examined sequence in order to include all non-coding first exons of the NR3C1 gene in the analysis.” (p. 521)
Author	Credentials: PhD Position and Institution: Department of Animal Biology, University of Barcelona, Spain Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer-reviewed. Publisher: Elsevier Other: Science Direct: Neuroscience and Biobehavioral reviews.
Date and Citation History	Date of publication: 2015 Cited By: 136
Stated Purpose or Research Question	“(i) to ascertain which methodology should be used to assess DNA methylation in the NR3C1 gene; (ii) to determine which CpG sites within the NR3C1 gene are definitely relevant for the etiology of stress-related disorders, according to Published data; and (iii) to discuss the rationale driving current research on this topic in order to address future analysis of subjects suffering from stress-related disorders.” (p. 521)
Author’s Conclusion	“Even when accounting for moderate differences, early life adversity has been repeatedly shown to be associated with hypermethylation at several CpG sites located in the non-coding first exons of the NR3C1 gene. Such epigenetic modifications may impair HPA axis functioning and further predispose early stress-exposed subjects to a wide range of psychiatric conditions, such as major depression or borderline personality disorder in adulthood.” (p. 528)
Overall Relevance to your EBP Question	Overall Relevance of Article: Poor Rationale: Pathophysiology linking early life adversity with psychiatric conditions in adulthood is important in understanding the impact of trauma on future psychological conditions.
Overall Quality of Article	Overall Quality of Article: Good Rationale: Established author. High impact. Reputable journal and publisher.

	Overview of Article
Type of article	Overall Type: Primary Research Specific Type: Mediation analysis
APA Reference	Peng, H., Zhu, Y., Strachan, E., Fowler, E., Bacus, T., Roy-Byrne, P., ... Zhao, J. (2018). Childhood trauma, DNA methylation of stress-related genes, and depression: Findings from two monozygotic twin studies. <i>Psychosomatic Medicine</i> , 80(7), 599–608. doi:10.1097/PSY.0000000000000604
Abstract	“OBJECTIVE:DNA methylation has been associated with both early life stress and depression. This study examined the combined association of DNA methylation at multiple CpG probes in five stress-related genes with depressive symptoms and tested whether these genes methylation mediated the association between childhood trauma and depression in two monozygotic (MZ) twin studies. METHODS: The current analysis comprised 119 MZ twin pairs (84 male pairs [mean = 55 years] and 35 female pairs [mean = 36 years]). Peripheral blood DNA methylation of five stress-related genes (BDNF, NR3C1, SLC6A4, MAOA, and MAOB) was quantified by bisulfite pyrosequencing or 450K BeadChip. We applied generalized Poisson linear-mixed models to examine the association between each single CpG methylation and depressive symptoms. The joint associations of multiple CpGs in a single gene or all five stress-related genes as a pathway were tested by weighted truncated product method. Mediation analysis was conducted to test the potential mediating effect of stress gene methylation on the relationship between childhood trauma and depressive symptoms. RESULTS: Multiple CpG probes showed nominal individual associations, but very few survived multiple testing. Gene-based or gene-set approach, however, revealed significant joint associations of DNA methylation in all five stress-related genes with depressive symptoms in both studies. Moreover, two CpG probes in the BDNF and NR3C1 mediated approximately 20% of the association between childhood trauma and depressive symptoms. CONCLUSIONS: DNA methylation at multiple CpG sites are jointly associated with depressive symptoms and partly mediates the association between childhood trauma and depression. Our results highlight the importance of testing the combined effects of multiple CpG loci on complex traits and may unravel a molecular mechanism through which adverse early life experiences are biologically embedded.” (p. 3)
Author	Credentials: PhD Position and Institution: Research Scholar, Department of Epidemiology, College of Public Health and Health Professions, College of Medicine, University of Florida, Gainesville Publication History in Peer-Reviewed Journals: Extensive history
Publication	Type of publication: Scholarly peer-reviewed. Publisher: Psychosom Med. 2018 Sep; 80(7): 599-608
Date and Citation History	Date of publication: 2018 Cited By: 10
Stated Purpose or Research Question	“Mediation analysis was conducted to test the potential mediating effect of stress gene methylation on the relationship between childhood trauma and depressive symptoms.” (p. 2)
Author’s Conclusion	“Twins exposed to childhood trauma had a significantly higher BDI-II score than those unexposed in both studies (P <0.001). Moreover, exposed twins smoked more cigarettes and had lower physical activity level than unexposed twins in the MMS (all P <0.05).” (p. 16)
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: This study links ACE with rates of smoking and risk of depression. Helpful information as we look at childhood trauma and rates of health-compromising behaviors.
Overall Quality of Article	Overall Quality of Article: Good Rationale: Established author, strong research method and recently published.

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Practitioner Review of Research
APA Reference	Smith, P., Dalgleish, T., & Meiser, S. R. (2019). Practitioner review: Posttraumatic stress disorder and its treatment in children and adolescents. <i>Journal of Child Psychology & Psychiatry</i> , 60(5), 500–515.
Abstract	“Important advances in understanding traumatic stress reactions in children and young people have been made in recent years. The aim of this review is to synthesise selected recent research findings, with a focus on their relevance to clinical practice. We therefore address: findings on the epidemiology of trauma exposure and PTSD; recent changes to diagnostic classification; implications for screening and assessment of traumatic stress reactions; and treatment outcome studies including interventions for acute and chronic PTSD, dissemination of effective treatments into community settings, and early interventions. We conclude with recommendations for clinical practice, and suggestions for future areas of research”(p. 500).
Author	N/A
Publication	Type of publication: scholarly peer-reviewed journal Publisher: Journal of child psychology & psychiatry
Date and Citation History	Date of Publication: 2019 Cited By: 8
Stated Purpose or Research Question	“The key question about treatment is whether these additional symptom domains require the addition of new treatment components. Specifically, do individuals who have difficulties with affect dysregulation require intervention to improve emotional regulation, prior to engaging in trauma-focused work?” (p. 508)
Author’s Conclusion	“While trauma exposure is common, persistent PTSD occurs in a minority of exposed young people, many of whom will recover without any professional help. Cognitive models help us to understand why some children develop persistent PTSD. Key changes have been made recently to the diagnosis of PTSD for young people, and the development and testing of assessment instruments is catching up with these changes: practitioners will benefit from using broad-based, multi informant, developmentally appropriate tools that are practical to use and acceptable to children and families. Theory-based, trauma-focused psychological therapies are efficacious for treating persistent PTSD, and recent work has shown how these treatments can be used by practitioners in community clinics without loss of effectiveness. Despite this, health-care providers often do not have capacity to offer these effective treatments at the level required. Few trials of face to face therapy for preschool children with PTSD have been completed, but developmentally adapted trauma-focused interventions are likely to be helpful. Progress towards developing early interventions to prevent persistent PTSD among trauma-exposed children and young people has been slow. There is a lack of compelling evidence for pharmacotherapy for PTSD in children and young people” (p. 509).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Relevance Rationale: This is a review that covers epidemiology of PTSD and PTSD. It covers the prevalence of PTSD. In their survey of over 6,700 Swiss adolescents, Landolt, Schnyder, Maier, Schoenbuecher, and Mohler-Kuo found that 56% of 15–16-year olds had experienced at least one traumatic event that involves ‘actual or threatened death or injury, or a threat to the physical integrity of self or others’, and that more than a third had experienced multiple traumas.
Overall Quality of Article	Overall Quality of Article: Good Quality Rationale: This is a good journal because it is recent studies with in 2019 there is not much information on the author. However, the was well researched and developed.