

Appendix 1. Examples of Tools to Assess Resilience

| Screening Tool | Self or Provider Administered | Number of Items | Used in Perinatal Setting | Benefits | Limitations | Key References |
|---|-------------------------------|--------------------------------------|---------------------------|---|--|---|
| Conversation | Provider | Varies according to patient response | Yes | <ul style="list-style-type: none"> Assesses a range of strengths. May deepen trust and strength of relationship between patient and clinician. May assist in developing a more comprehensive understanding of patient strengths and resources. | <ul style="list-style-type: none"> Strengths may not be systematically assessed (e.g., not all patients will answer the same questions). Administration may require greater clinician skill and training. Varied administration time may impact workflow. | UCSF TRIADS Framework ¹ |
| Connor-Davidson Resilience Scale (CD-RISC) | Self | 25, 10, and 2 item forms available | Yes | <ul style="list-style-type: none"> Widely used and researched. Excellent psychometric properties. Long and short forms available. Assesses resilience as the capacity to adapt to change, cope with stress, and persist toward goals. 10-item scale developed for clinical practice as a measure of stress coping ability. Language translations available. | <ul style="list-style-type: none"> License and fee required for use. May be better suited to research than clinical practice. | Connor and Davidson, 2003 ¹³ Campbell-Sills and Stein, 2007 ¹⁴ |
| Brief Resilience Scale | Self | 6 items | Yes | <ul style="list-style-type: none"> Brief and simple. Freely available. Excellent psychometric properties. Designed as an outcome measure to assess the ability to ‘bounce back’ or recover from stress. | <ul style="list-style-type: none"> Assesses one dimension of resilience only. Does not assess factors associated with resilience (e.g., social support). Limited use in clinical practice. | Smith et al., 2008 ¹⁵ |
| Resilience Scale for Adults (RSA) | Self | 33 items | Yes | <ul style="list-style-type: none"> Includes both intra- and inter-personal protective factors associated with adaptation to adversity. Assesses resilience along five dimensions: personal strength, social competence, structured style, family cohesion, social resources. Excellent psychometric properties. | <ul style="list-style-type: none"> Long. Response scale may be difficult for some patients to complete. Limited language translations available. | Friborg et al., 2003 ¹⁶ Friborg et al., 2005 ¹⁷ |

Johnson S, Kasparian NA, Cullum AS, Flanagan T, Ponting C, Kowalewski L, et al. Addressing adverse childhood and adult experiences during prenatal care. *Obstet Gynecol* 2023;141.

The authors provided this information as a supplement to their article.

©2023 American College of Obstetricians and Gynecologists.

| | | | | | | |
|--------------------------------|------|------------------------------------|-----|--|---|---|
| Social Provisions Scale | Self | 24, 10, and 5 item forms available | Yes | <ul style="list-style-type: none"> • 24-item form assesses perceptions of social support along 6 domains: guidance, reassurance of worth, social integration, attachment, opportunities for nurturance, reliable alliance. • Long and short forms available. | <ul style="list-style-type: none"> • Assesses social support only. • Limited language translations available. | Cutrona and Russell, 1987 ¹⁸ Caron, 2013 ¹⁹ Orpana et al., 2019 ²⁰ |
|--------------------------------|------|------------------------------------|-----|--|---|---|

This is not an exhaustive list of measures to assess resilience or social resources; rather, these are examples only.

Appendix 2. Examples of Tools to Assess Adverse Childhood Experiences (ACEs) and Adverse Adulthood Experiences (AAEs)

| Screening Tool | Self or Provider Administered | Number of Items | Assessment of Past or Present Trauma | Used in Perinatal Setting | Benefits | Limitations | Example References |
|---|-------------------------------|--------------------------------------|--------------------------------------|--|---|--|--|
| Conversation | Provider | Varies according to patient response | Past and present | Yes | <ul style="list-style-type: none"> Assesses adversity and distress (physical and emotional). Assesses present and past adverse experiences. May deepen trust and strength of relationship between patient and clinician. May assist in developing a more comprehensive understanding of ACEs and AAEs experienced by the patient. | <ul style="list-style-type: none"> ACEs and AAEs may not be systematically assessed (e.g., not all patients will answer the same questions). Administration may require greater clinician skill and training. Varied administration time may impact workflow. | UCSF TRIADS Framework ¹ |
| Behavioral Risk Factor Surveillance System Questionnaire | Self | 8 items | Past | Yes, in modified format | <ul style="list-style-type: none"> Brief. Tested in prenatal outpatient setting. | <ul style="list-style-type: none"> Assesses a limited number of ACEs ($n=8$). Does not assess ACE severity, frequency, duration, or timing. | Centers for Disease Control and Prevention ² Flanagan et al., 2018 ³ |
| ACE Questionnaire for Adults | Self or provider | 10 items | Past | Yes | <ul style="list-style-type: none"> Brief. Widely used and researched. Available in identified and de-identified formats. Available in English and Spanish language. Acceptability and feasibility data available in prenatal setting. | <ul style="list-style-type: none"> Assesses a limited number of ACEs ($n=10$). Does not assess ACE severity, frequency, duration, or timing. May lead to under-representation of childhood physical neglect. | Felitti et al., 1998 ⁴ Nguyen et al., 2019 ⁵ Rariden et al., 2021 ⁶ |
| Enhanced ACE Questionnaire for Adults | Self or provider | 14 items | Past | Has been used with parents in pediatric settings | <ul style="list-style-type: none"> Brief. Includes 4 additional ACEs (repeated bullying; discrimination based on ethnicity, skin color, or sexual orientation; exposure to | <ul style="list-style-type: none"> Does not assess ACE severity, frequency, duration, or timing. Does not assess exposure to traumatic migration, food insecurity, or poverty. | Finkelhor et al., 2013 ⁷ Gillespie & Folger, 2017 ⁸ |

Johnson S, Kasparian NA, Cullum AS, Flanagan T, Ponting C, Kowalewski L, et al. Addressing adverse childhood and adult experiences during prenatal care. *Obstet Gynecol* 2023;141.

The authors provided this information as a supplement to their article.

©2023 American College of Obstetricians and Gynecologists.

| | | | | | | | |
|---|------------------|----------|------------------|--------------------------|---|---|---|
| | | | | | community violence; foster care). • Available in identified and de-identified formats. | | |
| Childhood Trauma Questionnaire (CTQ) | Self or provider | 28 items | Past | Yes | <ul style="list-style-type: none"> Assesses frequency of five maltreatment subtypes. Includes three additional items to assess respondents' tendencies to minimize, deny, or idealize childhood experiences. | <ul style="list-style-type: none"> Greater administration time than the ACE Questionnaire. May be considered more complex or burdensome to complete. Repetitive and unpredictable questioning. | Bernstein & Fink, 1998 ⁹ Bernstein et al., 2003 ¹⁰ |
| PTSD Checklist for DSM-5 (PCL-5) | Self | 20 items | Present symptoms | Several studies underway | <ul style="list-style-type: none"> Assesses frequency and severity of traumatic stress symptoms in relation to a specific stressor. Symptoms assessed along five dimensions: intrusion, avoidance, arousal or hyperactivity, mood, cognition changes. | <ul style="list-style-type: none"> Does not assess a range of ACEs or AAEs. | Weathers et al., 2013 ¹¹ Blevins et al., 2015 ¹² |

This is not an exhaustive list of measures to assess adversity and trauma; rather, these are examples only.

Note: If the **ACE Questionnaire for Adults** is used, we strongly recommend revision to include a more diverse list of adverse experiences.

Appendix 3. Case Studies Illustrating Trauma-Informed Clinical Responses in the Prenatal Care Setting

CASE STUDY 1

**Joanne has a history of physical abuse and neglect
and experiences depression and chronic pain during pregnancy.**

Joanne is a White woman who was adopted at age 2 years out of a home where she reportedly experienced physical abuse and neglect. She does not remember these early experiences. She had a positive early childhood experience with her adoptive family. Over the course of her life, she has managed depression and chronic pain. In this pregnancy, fetal movements evoke a sensation of anger, followed by guilt and fear that she will not be a good mother and will not be able to bond with her baby. Joanne sees a psychologist, takes anti-depressive medication, and is in a supportive relationship. She worries that exercise may be dangerous to her pregnancy.

The plan for Joanne's care includes: (1) continuing with mental health treatment, (2) offering guidance about safe exercise during pregnancy, (3) exploring the belief that she needs to be a “perfect mother”, (4) explore ideas and concerns about infant care, and (5) referral to parenting classes and supportive parent-infant intervention programs. Joanne is also encouraged to bring her partner to prenatal visits and parenting classes.

Johnson S, Kasparian NA, Cullum AS, Flanagan T, Ponting C, Kowalewski L, et al. Addressing adverse childhood and adult experiences during prenatal care. *Obstet Gynecol* 2023;141.

The authors provided this information as a supplement to their article.

©2023 American College of Obstetricians and Gynecologists.

CASE STUDY 2

**Jada was sexual abused as a child and in early adulthood and
is uncomfortable with sexual intimacy**

Jada is an African American woman who experienced sexual abuse as a child and was sexually assaulted in her early twenties. She felt shame and humiliation and did not disclose the sexual abuse to anyone at the time. Jada finds intimate contact difficult, including sexual intercourse and pelvic examinations. She finds relaxation and joy through gardening and cooking, which allow her to experience nature and connect with others.

The plan for Jada's care includes: The clinician asks Jada what would help to make her feel safe during vaginal examinations. She (1) refers Jada to childbirth education classes, and (2) helps her create a birth plan that involves minimizing vaginal examinations and choosing her own birthing position. She documents and communicates this plan with the hospital delivery team. Jada chooses a soundtrack that includes sounds of nature to help with grounding during birth. The clinician reinforces how connecting with others and with nature and eating nutritious food can help balance the health effects of adversity and positively influence both Jada's and her child's life.

CASE STUDY 3

Veronica has chronic health conditions,

Johnson S, Kasparian NA, Cullum AS, Flanagan T, Ponting C, Kowalewski L, et al. Addressing adverse childhood and adult experiences during prenatal care. *Obstet Gynecol* 2023;141.

The authors provided this information as a supplement to their article.

©2023 American College of Obstetricians and Gynecologists.

experienced abuse as a child and her mother misused alcohol.

Veronica is an immigrant from Mexico who experienced physical abuse as a child and whose mother drank heavily. She experienced a sense of abandonment and believed she was alone in the world.

Veronica has stress-associated health conditions, including obesity and Type 2 diabetes, and experiences social isolation related to being a new immigrant. She reports overeating as a way of coping with stress. She gets strength from prayer and her connection with church. She is motivated to engage in healthy behaviors by her desire to give her baby a good start.

The plan for Veronica's care includes: The clinician enrolls Veronica in a local prenatal group to reduce her sense of isolation. The clinician also (1) treats the diabetes, (2) explores culturally-appropriate healthy eating options during pregnancy, and (3) connects Veronica with a primary care doctor after birth to continue to address long-term health risks.

REFERENCES

1. Lieberman A, Kuo A, Machtinger E, Lightfoot M. The TRIADS Framework (Trauma and Resilience-informed Inquiry for Adversity, Distress, and Strengths) UCSF Center to Advance Trauma-informed Health Care and UCSF Child Trauma Research Program. Published 2021. Accessed November, 2021.
2. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Questionnaire. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. <https://www.cdc.gov/brfss/questionnaires/index.htm>. Published 2016. Accessed November, 2021.
3. Flanagan T, Alabaster A, McCaw B, Stoller N, Watson C, Young-Wolff KC. Feasibility and Acceptability of Screening for Adverse Childhood Experiences in Prenatal Care. *J Womens Health (Larchmt)*. 2018;27(7):903-911.

Johnson S, Kasparian NA, Cullum AS, Flanagan T, Ponting C, Kowalewski L, et al. Addressing adverse childhood and adult experiences during prenatal care. *Obstet Gynecol* 2023;141.

The authors provided this information as a supplement to their article.

©2023 American College of Obstetricians and Gynecologists.

4. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med*. 1998;14(4):245-258.
5. Nguyen MW, Heberlein E, Covington-Kolb S, Gerstner AM, Gaspard A, Eichelberger KY. Assessing adverse childhood experiences during pregnancy: evidence toward a best practice. *American Journal of Perinatology Reports*. 2019;9:e54-e59.
6. Rariden C, Smith-Battle L, Yoo JH, Cibulka N, Loman D. Screening for Adverse Childhood Experiences: Literature Review and Practice Implications. *The Journal for Nurse Practitioners*. 2021;17:98-104.
7. Finkelhor D, Shattuck A, Turner H, Hamby S. Improving the Adverse Childhood Experiences Study Scale. *JAMA Pediatrics*. 2013;167(1):70-75.
8. Gillespie RJ, Folger AT. Feasibility of Assessing Parental ACEs in Pediatric Primary Care: Implications for Practice-Based Implementation. *Journal of Child and Adolescent Trauma*. 2017;10:249–256.
9. Weathers FW, Litz BT, Keane TM, Palmieri PA, Marx BP, Schnurr PP. The PTSD Checklist for DSM-5 (PCL-5). Scale available from the National Center for PTSD at www.ptsd.va.gov. 2013.
10. Blevins CA, Weathers FW, Davis MT, Witte TK, Domino JL. The Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *J Trauma Stress*. 2015;28:489-498.
11. Connor KM, Davidson JRT. Development of a new resilience scale: the Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*. 2003;18:71-82.
12. Campbell-Sills L, Stein MB. Psychometric analysis and refinement of the Connor–Davidson Resilience Scale (CD-RISC): Validation of a 10-item measure of resilience. *J Trauma Stress*. 2007;20(6):1019-1028.
13. Smith BW, Dalen J, Wiggins K, Tooley E, Christopher P, Bernard J. The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*. 2008;15(3):194-200.
14. Friborg O, Hjemdal O, Rosenvinge JH, Martinussen M. A new rating scale for adult resilience: What are the central protective resources behind healthy adjustment? *International Journal for Methods in Psychiatric Research*. 2003;12(2):65-76.
15. Friborg O, Barlaug D, Martinussen M, Rosenvinge J, Hjemdal O. Resilience in relation to personality and intelligence. *International Journal Of Methods In Psychiatric Research*. 2005;14(1):29-42.
16. Cutrona C, Russell D. The provisions of social relationships and adaptation to stress. *Advances in Personal Relationships*. 1987;1:37-67.
17. Caron J. Une validation de la forme abrégée de l'Échelle de provisions sociales: l'ÉPS-10 items. *Santé Ment Qué*. 2013;38(1):297-318.
18. Orpana HM, Lang JJ, Yurkowski K. Validation of a brief version of the Social Provisions Scale using Canadian national survey data. *Health Promotion and Chronic Disease Prevention in Canada*. 2019;39(12):323-332.
1. The TRIADS Framework (Trauma and Resilience-informed Inquiry for Adversity, Distress, and Strengths) UCSF Center to Advance Trauma-informed Health Care and UCSF Child Trauma Research Program, 2021. (Accessed November, 2021, at <https://cthc.ucsf.edu/triads/what-is-triads/>.)
2. Behavioral Risk Factor Surveillance System Survey Questionnaire. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2016. (Accessed November, 2021, at <https://www.cdc.gov/brfss/questionnaires/index.htm>.)

Johnson S, Kasparian NA, Cullum AS, Flanagan T, Ponting C, Kowalewski L, et al. Addressing adverse childhood and adult experiences during prenatal care. *Obstet Gynecol* 2023;141.

The authors provided this information as a supplement to their article.

©2023 American College of Obstetricians and Gynecologists.

3. Flanagan T, Alabaster A, McCaw B, et al. Feasibility and Acceptability of Screening for Adverse Childhood Experiences in Prenatal Care. *J Womens Health (Larchmt)* 2018;27:903-11.
4. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med* 1998;14:245-58.
5. Nguyen MW, Heberlein E, Covington-Kolb S, et al. Assessing adverse childhood experiences during pregnancy: evidence toward a best practice. *American Journal of Perinatology Reports* 2019;9:e54-e9.
6. Rariden C, Smith-Battle L, Yoo JH, et al. Screening for Adverse Childhood Experiences: Literature Review and Practice Implications. *The Journal for Nurse Practitioners* 2021;17:98-104.
7. Finkelhor D, Shattuck A, Turner H, et al. Improving the Adverse Childhood Experiences Study Scale. *JAMA Pediatrics* 2013;167:70-5.
8. Gillespie RJ, Folger AT. Feasibility of Assessing Parental ACEs in Pediatric Primary Care: Implications for Practice-Based Implementation. *Journal of Child and Adolescent Trauma* 2017;10:249–56.
9. Bernstein DP, Fink L. *Childhood Trauma Questionnaire: A retrospective self-report*. San Antonio, TX: The Psychological Corporation; 1998.
10. Bernstein DP, Stein JA, Newcomb MD, et al. Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect* 2003;27:169-90.
11. Weathers FW, Litz BT, Keane TM, et al. The PTSD Checklist for DSM-5 (PCL-5). Scale available from the National Center for PTSD at www.ptsd.va.gov. 2013.
12. Blevins CA, Weathers FW, Davis MT, et al. The Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *J Trauma Stress* 2015;28:489-98.
13. Connor KM, Davidson JRT. Development of a new resilience scale: the Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety* 2003;18:71-82.
14. Campbell-Sills L, Stein MB. Psychometric analysis and refinement of the Connor–Davidson Resilience Scale (CD-RISC): Validation of a 10-item measure of resilience. *J Trauma Stress* 2007;20:1019-28.
15. Smith BW, Dalen J, Wiggins K, et al. The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine* 2008;15:194-200.
16. Friberg O, Hjemdal O, Rosenvinge JH, et al. A new rating scale for adult resilience: What are the central protective resources behind healthy adjustment? *International Journal for Methods in Psychiatric Research* 2003;12:65-76.
17. Friberg O, Barlaug D, Martinussen M, et al. Resilience in relation to personality and intelligence. *International Journal Of Methods In Psychiatric Research* 2005;14:29-42.
18. Cutrona C, Russell D. The provisions of social relationships and adaptation to stress. *Advances in Personal Relationships* 1987;1:37-67.
19. Caron J. Une validation de la forme abrégée de l'Échelle de provisions sociales: l'ÉPS-10 items. *Santé Ment Qué* 2013;38:297-318.
20. Orpana HM, Lang JJ, Yurkowski K. Validation of a brief version of the Social Provisions Scale using Canadian national survey data. *Health Promotion and Chronic Disease Prevention in Canada* 2019;39:323-32.

Johnson S, Kasparian NA, Cullum AS, Flanagan T, Ponting C, Kowalewski L, et al. Addressing adverse childhood and adult experiences during prenatal care. *Obstet Gynecol* 2023;141.

The authors provided this information as a supplement to their article.

©2023 American College of Obstetricians and Gynecologists.