## **Research Using the Difficult Life Circumstances**

The Difficult Life Circumstances (DLC) is primarily used as a clinical tool for needs assessment, but it is also used in research to quantify difficult life circumstances among different populations (see Table 1). Reviewing the literature base helps us understand how difficult life circumstances relate to other functioning domains. In Table one we list a recent review of studies using the DLC.

Author Population **Study Description** Barboza-Longitudinal study of 682 first-time A study examining predictors of parenting stress Salerno 2020 mothers, average age 21 in South and for young mothers across the first three years of Southeastern United States. child's life. Community-based sample (N=2020) e.g. An examination of threat exposure predicts the Byrd et al., 2021 Pittsburgh Girls Study. risk of depression, anxiety, borderline and antisocial personality disorders and if socialemotional deficits mediate the prediction. Conrad-Spanish speaking caregivers receiving A study designed to measure resiliency in a Hiebner et parenting services (N =133). sample of Spanish speaking families. al., 2015 Conrad-Sample of Spanish (N=148) speaking A study aiming at validating a protective factor Hiebner et participants receiving parenting scale developed for Spanish speaking families. al., 2015 services. Elliott et al., First time young (~ 20 years) mother, Pilot test to evaluate psychosocial and 2014 lower ed/income, 60% White (N = 33). environmental risk on infants and caregivers. Hash et al., A sample of 247 parents under A study of the impact of adversity on child's 2019 investigation for child maltreatment sleep. DLC was used as a measure of child's and their children 10-24 months of age. current experience of adversity. Jakubowski Young adults who drink alcohol aged Stress in young adults and psychosocial et al., 2022 21-30 (N = 114). outcomes pre and post COVID-19 pandemic. Jirikowic et Infants aged 6-15 months and their A study of infant regulation and stress reactivity biological mothers (N=18). al., 2016 in a sample of infants at high-risk for fetal alcohol spectrum disorders.

Table 1. Articles Using DLC Published 2010–2023: Author, Study Population, and Description\*

Keenan et al., 2014	Pregnant African American women 16– 21 weeks gestation (N = 64).	A study testing the effect of receiving docosahexaenoic acid (DHA) supplement, cortisol, and perceived stress.
Keenan et al., 2017	A community-based sample (N = 151 biological mothers) e.g. the Pittsburgh Girls Study.	Testing the accuracy of maternal recall of prenatal complications.
Letourneau et al., 2013	Mothers in Canada currently exposed to interpersonal violence, 84% White (N = 49).	Mother and infant/toddler response to interpersonal violence.
Moses-Kolko et al., 2021	Young mothers (N= 137) enrolled in the Pittsburg Girls study.	An examination of Early Life Stress and human neurobiological prediction of maternal caregiving behaviors via hippocampal GM volume.
Nast et al., 2013	Review of tools to measure stress (depression, anxiety, daily hassles, life events, environmental stressors, and pregnancy related stressors).	Review of 115 studies that identified 43 measures of stress for pregnant women. DLC was one of the tools in the review.
Quick et al., 2023	Longitudinal study of Black and White women during the perinatal period (N = 175).	A study of psychological well-being during the perinatal period.
Scott et al., 2015	A longitudinal cohort study of (N=2450) adolescent girls aged 10-21 in a low- income neighborhood e.g. Pittsburgh Girls Study	The aim of the study was designed to predict suicide attempts in adolescent girls.
Secco et al., 2014	Lower education mothers (N=12) with children aged 1-5.	A description of stress and strengths of mothers in methadone maintenance treatment
Sroka, et al., 2023	A sample of pregnant African American (N= 45)	A study of prenatal stress and high depression.
Stepp et al., 2016	Adolescent girls (N=113) at risk for borderline personality disorder (BPD) e.g. Pittsburgh Girls Study	A study of negative emotionality as a marker of risk to developing BPD. DLC was used in a composite as a measure of family adversity.

Tsao et al., 2015	Pregnant Vietnamese women in Taiwan (N = 44).	A study of the health and wellbeing of Vietnamese foreign brides who recently immigrated to southern Taiwan.
Tsao et al., 2016	Pregnant Taiwanese women (n = 236) and Immigrant women (n=44).	A comparison of Life Stress and Depression between Taiwanese and Immigrant women.
Tung et al., 2020	A sample of (N = 191) pregnant women (79% Black) e.g. Pittsburgh Girls Study.	A study of how life stress and emotional support influence heart rate variability.
Tung et al., 2020	Community-based sample of 200 pregnant women aged 18–24 e.g. the Pittsburgh Girls Study.	An investigation of intimate partner violence during pregnancy and childhood adversity and prenatal emotional distress.

## **References:**

Barboza-Salerno, G. E. (2020). Cognitive readiness to parent, stability and change in postpartum parenting stress and social-emotional problems in early childhood: A second order growth curve model. *Children and Youth Services Review*, *113*, 104958.

Byrd, A. L., Tung, I., Manuck, S. D., Vine, V., Horner, M., Hipwell, A. E., & Stepp, S. D. (2021). An interaction between early threat exposure and the oxytocin receptor in females: Disorder-specific versus general risk for psychopathology and social–emotional mediators. *Development and psychopathology*, *33*(4), 1248-1263.

Conrad-Hiebner, A., Schoemann, A. M., Counts, J. M., & Chang, K. (2015). The development and validation of the Spanish adaptation of the Protective Factors Survey. *Children and youth services review*, *52*, 45-53.

Conrad-Hiebner, A., Schoemann, A. M., Counts, J. M., & Chang, K. (2015). The development and validation of the Spanish adaptation of the Protective Factors Survey. *Children and youth services review*, *52*, 45-53.

Elliott, M. Ruth and Demianczuk, Nestor and Robertson, Charlene, Infants at Psychosocial Risk and their Caregivers: Selection for Early Intervention - Results of the Pilot Study (August 27, 2014). Available at SSRN: <u>https://ssrn.com/abstract=2488161</u> or <u>http://dx.doi.org/10.2139/ssrn.2488161</u>

Hash, J. B., Oxford, M. L., Fleming, C. B., Ward, T. M., Spieker, S. J., & Lohr, M. J. (2019). Impact of a home visiting program on sleep problems among young children experiencing adversity. *Child abuse & neglect*, *89*, 143-154.

Jakubowski, K., Wallace, M., Pedersen, S., & Hasler, B. (2022). 0243 Relationships Between Pre-Pandemic Trauma and Stress with Sleep During the COVID-19 Pandemic in Young Adults. *Sleep*, *45*(Supplement\_1), A109-A110. Jirikowic, T., Chen, M., Nash, J., Gendler, B., & Carmichael Olson, H. (2016). Regulatory behaviors and stress reactivity among infants at high risk for fetal alcohol spectrum disorders: an exploratory study. *Journal of Mental Health Research in Intellectual Disabilities*, *9*(3), 171-188.

Keenan, K., Hipwell, A. E., Bortner, J., Hoffmann, A., & McAloon, R. (2014). Association between fatty acid supplementation and prenatal stress in African Americans: a randomized controlled trial. *Obstetrics and gynecology*, *124*(6), 1080.

Keenan, K., Hipwell, A., McAloon, R., Hoffmann, A., Mohanty, A., & Magee, K. (2017). Concordance between maternal recall of birth complications and data from obstetrical records. *Early human development*, *105*, 11-15.

Letourneau, N., Morris, C. Y., Secco, L., Stewart, M., Hughes, J., & Critchley, K. (2013). Mothers and infants exposed to intimate partner violence compensate. *Violence and victims*, *28*(4), 571-586.

Moses-Kolko, E. L., Banihashemi, L., & Hipwell, A. E. (2021). Reduced postpartum hippocampal volume is associated with positive mother-infant caregiving behavior. *Journal of affective disorders*, *281*, 297-302.

Nast, I., Bolten, M., Meinlschmidt, G., & Hellhammer, D. H. (2013). How to measure prenatal stress? A systematic review of psychometric instruments to assess psychosocial stress during pregnancy. *Paediatric and perinatal epidemiology*, *27*(4), 313-322.

Quick, A. D., Tung, I., Keenan, K., & Hipwell, A. E. (2023). Psychological Well-Being Across the Perinatal Period: Life Satisfaction and Flourishing in a Longitudinal Study of Young Black and White American Women. *Journal of happiness studies*, *24*(3), 1283-1301.

Scott, L. N., Pilkonis, P. A., Hipwell, A. E., Keenan, K., & Stepp, S. D. (2015). Non-suicidal self-injury and suicidal ideation as predictors of suicide attempts in adolescent girls: A multi-wave prospective study. *Comprehensive psychiatry*, *58*, 1-10.

Secco, L., Letourneau, N., Campbell, M. A., Craig, S., & Colpitts, J. (2014). Stresses, strengths, and experiences of mothers engaged in methadone maintenance treatment. *Journal of Addictions Nursing*, *25*(3), 139-147.

Sroka, A. W., Mbayiwa, K., Ilyumzhinova, R., Meyer, W., Fowle, J., Gipson, C. J., ... & Keenan, K. (2023). Depression screening may not capture significant sources of prenatal stress for Black women. *Archives of Women's Mental Health*, *26*(2), 211-217.

Stepp, S. D., Scott, L. N., Jones, N. P., Whalen, D. J., & Hipwell, A. E. (2016). Negative emotional reactivity as a marker of vulnerability in the development of borderline personality disorder symptoms. *Development and Psychopathology*, *28*(1), 213-224.

Tsao, Y., Creedy, D. K., & Gamble, J. (2015). Emotional well-being of Vietnamese immigrant women during the transition to motherhood: A descriptive cohort study. *Nursing & Health Sciences*, *17*(1), 49-56.

Tsao, Y., Creedy, D. K., & Gamble, J. (2016). A comparison of life stress and depressive symptoms in pregnant Taiwanese and immigrant women. *Journal of Nursing Research*, *24*(3), 272-281.

Tung, I., Keenan, K., Stepp, S. D., & Hipwell, A. E. (2020). The moderating effects of traumatic stress on vulnerability to emotional distress during pregnancy. *Development and psychopathology*, *32*(2), 673-686.

Tung, I., Krafty, R. T., Delcourt, M. L., Melhem, N. M., Jennings, J. R., Keenan, K., & Hipwell, A. E. (2021). Cardiac vagal control in response to acute stress during pregnancy: Associations with life stress and emotional support. *Psychophysiology*, *58*(6), e13808.

Tung, I., Keenan, K., & Hipwell, A. E. (2021). Adolescent mothers' psychological wellbeing during pregnancy and infant emotional health. *Journal of Clinical Child & Adolescent Psychology*, 1-17.

Wright, R. J., Visness, C. M., Calatroni, A., Grayson, M. H., Gold, D. R., Sandel, M. T., ... & Gern, J. E. (2010). Prenatal maternal stress and cord blood innate and adaptive cytokine responses in an inner-city cohort. *American journal of respiratory and critical care medicine*, *182*(1), 25-33.