It is well documented that problematic sleep patterns in children are related to maternal mental health issues, such as stress, depression and anxiety. Although it is not clear whether it is the sleep patterns that predict maternal mental health or vice versa. Studies have called for the use of transactional models to allow for the contextual representation of the complexities of the interaction between mother and child. The current paper examines the potential bi-directional relationship between infant sleep patterns and maternal negative affect. Maternal negative affect was measured using the Edinburgh Postnatal Depression Scale and the Depression Anxiety Stress Scales. Infant sleep was measured using the Brief Infant Sleep Questionnaire (BISQ) and maternal ratings of infant sleep. Structural equation modeling suggests relationships are bi-directional but appear to weaken after 8 weeks, although there is some re-emergence of the relationship again at 9-12 months. Moreover, the results indicate poor maternal negative affect during pregnancy predicts poorer infant sleep at birth to eight weeks and two to six months, and poor infant sleep at birth to eight weeks predicts poorer maternal negative affect at 8 weeks old. The results indicate the relationship between maternal negative affect and infant sleep is bi-directional. Clinically, this has important implications for assessment and treatment, advocating the need for both constructs to be considered in the context of each other. They also highlight the importance of screening and treatment for maternal mental health during pregnancy and potential intervention for infant sleep problems in the early postnatal period.