# Parental stress and bedtime routines in toddlerhood

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## Abstract

**Objectives.** Main purposes of our study were to explore: a) the relationship between paternal and maternal perceptions of their interactions with the child during bedtime routines; b) the possible relationship among context dimensions (social support, marital satisfaction, parenting stress and bedtime routines). We examined both parents' subjective experience toward children's bedtime routines and their personal relationship with going to sleep.
**Material and methods.** 41 parents (34 % fathers) of toddlers 18 to 36 months old took part in this study. All parents completed Parent-Child Sleep Interaction Scale (PSIS; Alfano et al., 2013), Parent-Stress Index-Short Form (PSI-SF; Abidin, 1995), Social Provisions Scale (SPS; Cutrona and Russell, 1987), Dyadic Adjustment Scale (DAS-4; Sabourin et al., 2005) and *ad-hoc* semi-structured interview.
**Results.** Correlations outcome evidenced positive relationships between maternal PSIS global score and paternal PSI "Difficult Child" ($r$ = .31 p = 0.05), maternal subscale PSIS, "Sleep Reinforcement" score and maternal PSI "Parental distress" ($r$ = .38 p= 0.05) score, paternal PSIS "Sleep Conflict" and maternal PSI "Difficult Child" score ($r$ = .47 p = 0.05), maternal PSIS "Sleep Conflict" score and PSI "Difficult Child" reported by both parents (mothers $r$ = .40 p = 0.01; fathers $r$ = .47, p = 0.05, respectively). Examining parent's answers to the brief semi-structured interview, putting children to sleep is considered a positive and intimate moment (mothers = 80%; fathers = 46%) and children's sleep doesn't represent a problem (mothers = 76%; fathers = 61%). 56% of mothers and 38% of fathers wrote about their bedtime routines as a positive and relaxed moment spent with parents.
**Conclusions.** A good concordance between mothers' and fathers' perceptions about children's bedtime routines was detected. Proximal context can influence bedtime routine, specifically parental stress can lead to critic bedtime routines. Primary care practitioners can play an instrumental role in helping families institute positive sleep practices and improving sleep in toddlers.

**Keywords**: bedtime routines, parent-child interactions, father's involvement.

## Introduction

The evolution of adequate sleep-wake regulation patterns is a complex developmental process, challenging parents during the first years of children's life. Sleep disturbances such as bedtime resistance, prolonged night awakenings or nighttime fears are frequently brought to the attention of pediatricians or other child-care professionals (Mindell et al., 2009). Nevertheless, the origin of sleep disturbances in infancy is still unclear; early in life, the comprehension of factors contributing to the disruption of sleep patterns has implications for both research and clinical practice (Alfano et al., 2013). Variability of sleep-wake patterns is conditioned by the interaction of numerous elements (Galland et al., 2012) such as child's temperamental patterns, cultural, social, and familial factors. Parental routine practices and their expectations about bedtime strongly influence sleep, establishing with it a bidirectional link (Sadeh et al., 2010; Galland et al., 2012).

To date, research highlights connections between these variables, analyzing the patterns of children's sleep in the familiar context; the parent-child relationship is described as one of the main determinants of children's quality of sleep. Thus, children's sleep disturbances acquire social correlations, such as other behavioral problems (Dahl and El-Sheikh, 2007; El-Sheikh, 2011).

Large theoretical framework suggests that onset and maintenance of adequate periods of sleep require an environment free of threat, with a decrease of attentiveness and responsiveness (Dahl, 1996); according to the emotional security model (Cummings and Davies, 1996), the feelings of safety and emotional security, conditioning the quality of infant sleep, stems from stable family relationships. Children react with emotional distress to familiar disturbances and parental personal difficulties, suggesting that parents may induce feelings of stress and anxiety, unfavorable to a good quality of sleep (El-Sheikh et al., 2007; Dahl, 1996). As reported by Alfano et al. (2013), an important feature of sleep-wake patterns, is the establishment and maintenance of regular sleep routines; Mindell (2009) defines "bedtime routine" a daily familiar attitude according to which parents, before turning off the lights, engage their children in similar activities, in the same order; the author suggests their advantage in promoting a good quality of infant sleep. Parent-child interaction shows a regulatory effect on child sleep patterns, acting as an external moderator of biological rhythms, as well as infantile self-regulation (Erath and Tu, 2011).

Recent literature underlines that positive children adjustment to the environment, as well as the amount and quality of infant sleep, are related to parental features such as emotional availability, warmth, and sensitivity. By contrast, negative parent-child relationships produce a condition of arousal and vigilance creating psychological discomfort and disrupted children's sleep. In particular, negative parent-child interactions at bedtime may induce feelings of guilt, threat, anger and sadness that may result in serious obstacles to adequate infant sleep (*ibidem*). Prior research evidenced that proximal context and parental psychosocial functioning are strictly related to child's sleeping patterns.

To date, maternal psychopathology received great attention (anxiety and depression) (Keller, Buckhalt, and El-Sheikh, 2008): the authors reported that children's sleep difficulties are related to psychological distress in mothers (Martin et al, 2007) and they are connected with an increase of marital conflict (Kelly and El-Sheikh, 2011) and of parenting stress (Morrell and Cortina-Borja, 2002).

High levels of stress are negatively related to parents' warmth and reciprocity (Haskett et al., 2006); these factors are essential for a good quality of child's sleep and they are related to the parental perception of their own children's sleep. Mothers and fathers, who describe their child's sleep as more problematic, refer higher levels of stress (Sinai and Tikotzky, 2012). It is not well

established if these associations are parent or child-driven; probably these effects are bidirectional. Sleep can alter child's attitude to regulate emotions and behaviors (Erath and Kelly, 2011).

This observation is especially true when marital satisfaction is taken into account. Marital conflict can produce physiological arousal, vigilance, and insecurity interfering with child's sleep. Child's emotional stability develops from supportive relationships; therefore, a hostile and aggressive familiar environment may induce psychological distress, interfering with child's feeling of security and sleeping attitude (El-Sheikh, Hinnant and Erath, 2015).

Recognizing the influence of proximal context, we suppose that also the parental perception of social support could impact on child's sleep. Global perception of social support is related to mental and physical health and promotes adaptation to a variety of life stressors (Cutrona and Russell, 1987). According to Bernier and colleagues (2013) maternal perceived social support predicts child sleep consolidation at 2 years, as well as changes in sleep between 18 months and 2 years of age; higher paternal and maternal perceived social support is related to higher sleep consolidation and great enhancement in sleep consolidation for children living in lower socioeconomic conditions.

Maternal role on child sleep has been deeply evaluated in literature; contrariwise, paternal involvement has been scarcely investigated. Features of fathers' and father-child relationship show a connection with developmental outcomes throughout childhood (Barker, Iles and Ramchandani, 2017). Several authors underlined that a few paternal-specific aspects may influence children's sleep patterns (Tikotzky, Sadeh and Glickman-Gravieli, 2010; Sadeh, Tikotzky and Scher, 2010; Palmstierna, Sepa and Ludvigsson, 2008). For example, Titotzky and Glickman-Gavrieli (2010) found that higher paternal involvement was related to fewer night walkings at 1 and 6 months; Bell and Belsky (2008) find greater mother-reported sleep problems for children with absent fathers.

These findings appear of great interest. Most studies examined sleep in early infancy or middle childhood, not considering the child's sleep development occurring in the second year of life (Bernier et al., 2013). Later in childhood parents meet new challenges, such as organizing consistent sleep routines or alleviating bedtime resistance; thus, their involvement in childcare show a significant increase (Bernier et al., 2013).

Toddlerhood is the age of exploration; toddlers, increasing their own motion skills and language abilities, may develop bedtime resistance, as coming to their parents' room in the middle of the night or in the early morning (Johnson and Mindell, 2011). Along toddlerhood, child's rapid cognitive development may lead to changes in bedtime habits: in this period, nighttime fears may increase and, consequently, children may refuse to go to sleep alone. Furthermore, social and emotional development, at this age, leads to a natural desire for independence and autonomy, which may be also accompanied by difficulties in remaining alone, but, when toddlers are stressed, they regress behaviorally probably showing a desire for co-sleeping.

On the basis of ecological research perspective, the main aim of our study was to explore parental perceptions of parent-child interactions at bedtime. In order to verify the possible role of proximal context in child sleep, some variables such as parenting stress, perceived social support and marital satisfaction were considered, evaluating their connection with the bedtime routines. By the employment of ad hoc semi-structured interview, both maternal and paternal perceptions of the children bedtime routines were taken into account; parents were asked to recall and describe their own personal sleep habits during childhood, in order to enlighten possible connections between the two over mentioned dimensions.

## Materials and Methods

Forty-one parents of toddlers 18 to 36 months old ($M$ = 25.8 months), (17 boys and 24 girls) living in Rome participated in this study. Criteria for participation were: full-term pregnancy and the absence of any known physical or mental disability. Mothers were between 24 and 44 years old ($M$ = 35.8) and fathers between 27 and 53 years old ($M$ = 37). As regards the education level, 63.4% of mothers and 60% of fathers hold a college degree, while 29.3% of mothers and 27.4 % of fathers hold a bachelor degree.

All parents completed a questionnaire pertaining to the demographic characteristics of the family (birth rank, mother's age, father's age marital status and parental education, etc.) as well as the child's medical and developmental history. The questionnaire included a dichotomous-scored item assessing whether the child had sleeping problems during the first 2 years of life.

The Parent-Child Sleep Interaction Scale (PSIS; Alfano et al., 2013), a 12-item parent report, was completed by both parents in order to assess parental behaviors and parent-child interactions related to sleep that might induce problematic sleep patterns/disorders in young children. PSIS is formed by three subscales, each consisting of 4 items: Sleep Reinforcement, Sleep Conflict and Sleep Dependence; a Likert-type response format require parents to indicate how frequently each behavior/interaction occurred during the past month: 0 = never; 1 = rarely; 2 = sometimes; 3 = frequently; 4 = always/almost always. Moreover, a "Total Score" index represents the parental perception of hyper-involvement in sleep routines, children's non-independent sleep patterns and need to be reassured and praised at bedtime; the abovementioned variables can represent meaningful elements that lead to the stabilization of dysfunctional sleep-wake patterns.

Parents' individual degree of satisfaction with their current romantic relationship was assessed by the Dyadic Adjustment Scale (DAS; Spanier, 1976; DAS–4; Sabourin, Valois, and Lussier, 2005), a 4-item questionnaire with a 1–6 Likert scale. Total scores can vary from 4 to 24.

The Parenting Stress Index (PSI–Short Form; Abidin, 1995) assessed parents' subjective level of stress perceived toward their child and their parenting role. Its 36 items are rated on a 0–5 Likert scale. PSI yields a Total Parenting Stress Score from three subscales, each consisting of 12 items: Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child. The subscale scores range from 12 to 60, and the total score from 36 to 180. High scores on the subscales and high PSI-SF total score indicate greater levels of stress.

The 24-item self-report Social Provisions Scale (SPS; Cutrona and Russell, 1987) was used to assess individuals' global perceptions of social support. Parents were asked to indicate, on a 1–4 Likert scale, the extent in which they agreed with items describing the social support available to them.

A brief semi-structured interview examined fantasies, fears, anxieties and, more in general, the subjective experience of parents who are putting their child to sleep. It takes about 10 minutes to be completed and it is composed of three questions: 1. "What is like for you putting your child to sleep?"; 2. "Can you remind how it was going to bed when you were a child?"; 3. "Do you consider your child's sleep a problem?".

Data were analyzed using PASW Statistic version 17.0 (SPSS, Chicago, IL). Spearman correlations were performed to examine associations between parent-child sleep interaction at bedtime (PSIS total score and subscales scores), parenting stress (PSI-SF total score and subscales scores), marital satisfaction, perceived social support in both parents.

## Results

Intercorrelations among the key variables are displayed in Table 1. Results indicate that maternal and paternal scores for bedtime routines, perceived social support, marital satisfaction, parenting stress show small to moderate correlations ($r$ = .71, $r$ = .28, $r$ = .69 and $r$ = .79, respectively).

**Table 1. Bivariate correlations between paternal and maternal PSIS total scores, SPS total scores, DAS total scores and PSI total scores.**

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1.Pat.PSIS_Tot | 1 | | | | | | | |
| 2.Mat.PSIS_Tot | .71** | 1 | | | | | | |
| 3.Pat.SPS_Tot | -.06 | .11 | 1 | | | | | |
| 4.Mat.SPS_Tot | -.03 | -.07 | .28* | 1 | | | | |
| 5.Pat.DAS_Tot | -.17 | -.10 | .23* | -.02 | 1 | | | |
| 6.Mat.DAS_Tot | -.20 | -.13 | .15 | 0.18 | .69** | 1 | | |
| 7.Pat.PSI_Tot | .20 | .09 | -.14 | -.10 | -.22* | -.36** | 1 | |
| 8.Mat.PSI_Tot | .13 | .08 | .03 | -.31** | -.14 | -.28** | .79** | 1 |

**Table 2. Bivariate correlations between paternal and maternal PSIS scales scores and paternal and maternal PSI scales scores.**

| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14 15 16** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.Pat.PSIS_Tot | 1 | | | | | | | | | | | | | |
| 2.Mat.PSIS_Tot | .70** | 1 | | | | | | | | | | | | |
| 3.Pat_PSIS_SR | .86** | .57** | 1 | | | | | | | | | | | |
| 4.Mat_PSIS_SR | .53** | .77** | .58** | 1 | | | | | | | | | | |
| 5.Pat.PSIS_SC | .68** | .70** | .42* | .48* | 1 | | | | | | | | | |
| 6.Mat.PSIS_SC | .34 | .70** | .22 | .38* | .79** | 1 | | | | | | | | |
| 7.Pat.PSIS_SD | .60** | .31 | .36 | .22 | -.02 | -.32 | 1 | | | | | | | |
| 8.Mat.PSIS_SD | .46* | .58** | .28 | .26 | -.06 | .00 | .88** | 1 | | | | | | |
| 9.Pat.PSI_PD | -.08 | .01 | .28 | .21 | -.16 | -.04 | -.17 | -.18 | 1 | | | | | |
| 10.Mat.PSI_PD | .02 | .19 | .35 | .38* | -.10 | .20 | -.11 | -.19 | .88** | 1 | | | | |
| 11.Pat.PSI_PCDI | -.04 | -.01 | .38 | .19 | -.05 | .02 | -.24 | -.29 | .88** | .81** | 1 | | | |
| 12.Mat.PSI_PCDI | -.13 | .05 | .29 | .16 | -.13 | .13 | -.26 | -.20 | .87** | .76** | .96** | 1 | | |
| 13.Pat.PSI_DC | .08 | .31* | -.01 | .28 | .27 | .47** | -.11 | -.16 | -.04 | .30 | -.06 | .09 | 1 | |
| 14.Mat.PSI_DC | .25 | .11 | .17 | -.03 | .47* | .40* | -.20 | -.24 | -.19 | -.05 | -.07 | -.11 | .59** | 1 |
| 15.Pat.PSI_Tot | -.00 | .02 | .38 | .20 | .00 | .08 | -.26 | -.31 | .92** | .85** | .96** | .92** | .07 | .09 1 |
| 16.Mat.PSI_Tot | -.03 | .21 | .30 | .34* | -.03 | .31* | -.23 | -.24 | .84** | .91** | .86** | .86** | .50** | .08 .09 1 |

Table 2 indicates that several indicators of parenting stress were related in consistent ways to problematic bedtime routines with the child.

We found positive relationships between maternal PSIS global score that reassumes sleep-related behaviors and parent-child interactions that may promote problematic sleep patterns, and paternal PSI "Difficult Child" ($r$ = .31, p = 0.05), maternal subscale PSIS, "Sleep Reinforcement" score and maternal PSI " Parental distress " ($r$ = .38, p = 0.05) score, paternal PSIS "Sleep Conflict" and maternal PSI "Difficult Child" score ($r$ = .47, p = 0.05), maternal PSIS "Sleep Conflict" score and PSI "Difficult Child" reported by both parents (respectively mothers $r$ = .40, p = 0.01; fathers $r$ = .47, p = 0.05).

Examining parent's answers to the brief semi-structured interview (Figs. 1-2), putting children to sleep is considered a positive and intimate moment (mothers = 80%; fathers = 46%) and children's sleep doesn't represent a problem (mothers = 76%; fathers = 61%). 56% of mothers and 38% of fathers wrote about their bedtime routines as a positive and relaxed moment spent with parents.

**Fig. 1** - Percentages of mothers' and fathers' answers to the brief semi-structured interview

**Question n. 1:** "What is like for you putting your child to sleep?"

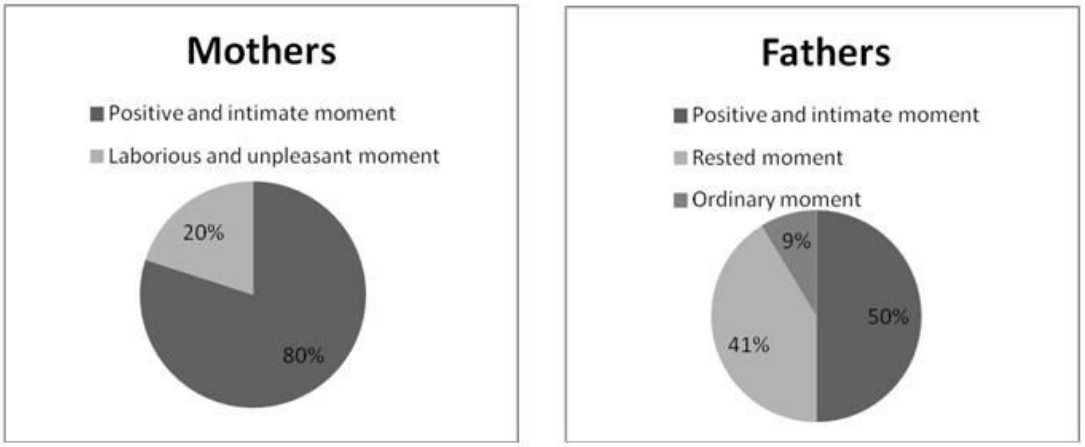
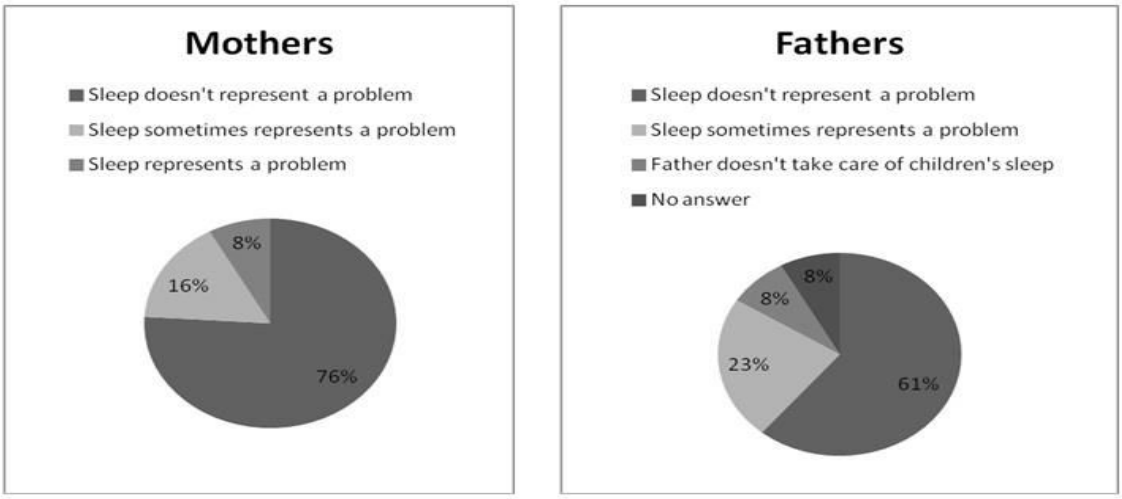



**Fig. 2** - Percentages of mothers' and fathers' answers to the brief semi-structured interview

**Question n. 3:** "Do you consider your child's sleep a problem?"



## Discussions

In the current study, we aimed to contribute to the growing field of knowledge about connections between parenting dimensions and toddlers' sleep, notably by studying a non-clinical sample, including both parents, and examining the conditions under which parental psychosocial functioning was related to bedtime routines in toddlerhood. Lower parental functioning (higher parenting stress reported by both parents) was generally related to more critical bedtime routines in toddlers and this result emerged across different indices of functioning. Mothers and fathers who report higher levels of parenting stress were more likely to rate their infants' bedtime routines as more problematic. These findings suggest that the parenting stress reported by both parents may contribute to more critical bedtime routines with their children. Sleep scholars have often noted that the direction of associations between child sleep and family factors was unclear (Keller and El-Sheikh, 2011; Meltzer and Mindell, 2007). However, because of the correlational nature of our study, it is impossible to infer about the direction of these links. The findings suggest that at least some of the associations are probably due to family processes influencing children's bedtime routines and consequently their sleep. How, precisely, parental psychosocial functioning may impact young children's sleep consolidation remains a matter for further investigation.

Analyzing parental psychological functioning, we also found a negative relationship between parenting stress and marital satisfaction. The results showed that mothers and fathers with a higher level of stress also reported a lower level of marital satisfaction. Considering this variable, a parent finding gratification in the parental role, perceiving a supportive environment, and living a satisfying marital relationship appears able to create a stable and emotional secure family environment, often considered leading to quality sleep in children (Dahl, 1996). Children's emotional security derives from relationships perceived by them as secure, predictable and stable; therefore, we can expect that marital conflict related to increased psychological distress may interfere with children's sense of security and consequently to sleep consolidation (El-Sheikh, Hinnant and Erath, 2015).

In line with our initial purpose to verify the possible role of proximal context in child sleep, the influence between the above-mentioned links has been recently evaluated and described by El-Sheikh and colleagues (2015). More in-depth, authors illustrated as in families where levels of marital conflict were low, children's sleep appeared to be more stable; by contrast, a hostile and aggressive familiar environment induced psychological distress, interfering with child's feeling of security and sleeping attitude. These results relate to conceptual frameworks which proposes that secure family conditions, in contrast to threatening ones, enable children sleep (Dahl, 1996) and that feelings of emotional security derive from safe and supportive perceived family relationships. Children experiencing marital conflict and threats to security may show arousal and vigilance, conditions proposed to be conducive to disrupted sleep (El-Sheik et al., 2015), confirming the need of considering parenting dimensions in relation to toddlers' sleep.

Simultaneously, children's sleep problems can negatively influence marital relationship. Meijer and van den Wittenboer (2007) examined interactions between parental self-efficacy, couple's problem-solving ability and children's sleep and crying in 107 first-time parent couples in the Netherlands: crying of the child would affect couple's relationship and marital satisfaction. This study also shows that increase of paternal self-efficacy contributed to the more marital satisfaction of mothers, confirming that husband's involvement in childcare may improve couple's relationship and marital satisfaction (Meijer and van den Wittenboer, 2007). Considering marital satisfaction and

parent-child sleep interactions, Smith and colleagues (2014) found correlations between parental report of high “sleep conflict” and lower levels of perceived marital satisfaction.

Examining parent’s answers to the brief semi-structured interview, to the questions “What is like for you to put your child to sleep?” and “Do you consider your child’s sleep a problem?” the 80% of mothers and 46% of fathers described the bedtime moment as a positive and intimate one and for the 76% of mothers and 61% of fathers children’s sleep doesn’t represent a problem. By the question "Can you remind how it was going to bed when you were a child?", instead, the semi-structured interview investigated parents' memories about their own experience about bedtime routines: the 56% of mothers reminded it as a positive experience, while 12% of them described it as negative; the 38% of the fathers interviewed described it as positive situation whereas the 8% of them, as negative. Referring to the Transactional Model (Sadeh and Anders, 1993; De Stasio and Traverso, 2014), parents' memories may modify parental beliefs on children's sleep habits, which show a direct effect on parent-child interactions at bedtime. To date, research showed how the internal working models, shaped by the attachment bond with the caregiver, may be passed down between different generations. Attachment and sleep are two complex systems and their development proceeds simultaneously; the interaction between them lasts throughout the entire life (Adams, Stoops, and Skomro, 2014). As reported by Dahl (1996), individuals need to perceive a sense of protection and safety in order to fall asleep, reducing their responsiveness to external environment; According to Bronfenbrenner's Ecological Perspective (with reference to the incisive role recognized to the immediate context) and according to others well-known developmental researchers, children's sense of safety takes origin from both familial context and parent-child relationship (Bélanger et al.., 2015). Even if this subject has to be still thoroughly examined, the strong link between parental beliefs and children's disrupted sleep-wake patterns is well described in literature (Sadeh, 2010); Morrell and Steele (2003) suggest that children's sleep problems reported by parents may be specifically related to the maternal perception of the setting as fixed, to a decrease of mother's self-efficacy and to the amount of anger shown against child's solicitations.

## Conclusions

Overall, this study evidenced a good concordance between the perceptions of mothers and fathers about bedtime routines with their children.

We found that the different dimensions of proximal context can influence bedtime routine specifically parental stress can lead to critic bedtime routines. Primary care practitioners can play an instrumental role in helping families institute positive sleep practices and improving sleep in infants and toddlers.

## Bibliography

1. Abidin, R.R., 1995. *Parenting Stress Index*. 3rd edition. Odessa, FL: Psychological.
2. Adams G.C., Stoops M.A., Skomro R.P., 2014. Sleep tight: exploring the relationship between sleep and attachment style across the life span. *Sleep Medicine Review*, 18(6), pp.495-507.
3. Alfano C.A., Smith V.C., Reynolds K.C., Reddy R., Dougherty L.R., 2013. The Parent-Child Sleep Interactions Scale (PSIS) for preschoolers: factor structure and initial psychometric properties. *Journal of Clinical Sleep Medicine*, 9(11), pp.1153-1160.

4. Barker, B., Iles, J.E., and Ramchandani, P.G, 2017. Fathers, fathering and child psychopathology. *Current opinion in psychology*, 15, pp.87-92. https://doi.org/10.1016/j.copsyc.2017.02.015.
5. Bélanger M.È., Bernier A., Simard V., Bordeleau S., Carrier J., 2015. Attachment and sleep among toddlers: disentangling attachment security and dependency. *Monographs of the Society for Research in Child Development,* 80(1), pp.125-40.
6. Bell, B.G., and Belsky, J., 2008. Parents, parenting, and children's sleep problems: Exploring reciprocal effects. *British Journal of Developmental Psychology*, 26(4), pp.579-593.
7. Bernier, A., Bélanger, M.È., Bordeleau, S., and Carrier, J.2013. Mothers, fathers, and toddlers: Parental psychosocial functioning as a context for young children's sleep. *Developmental Psychology*, 49(7), pp.1375-84.
8. Cummings, E.M., and Davies, P., 1996. Emotional security as a regulatory process in normal development and the development of psychopathology. *Development and Psychopathology*, 8(1), pp.123–139.
9. Cutrona, C.E., and Russell, D.W., 1987. The provisions of social relationships and adaptation to stress. *Advances in personal relationships*, 1(1), pp.37-67.
10. Dahl, R.E., 1996. The regulation of sleep and arousal: Development and psychopathology. *Development and Psychopathology*, 8(1), pp.3–27.
11. Dahl, R.E., and El-Sheikh, M., 2007. Considering sleep in a family context: Introduction to the special issue [Special issue]. *Journal of Family Psychology*, 21(1), pp.1–3.
12. De Stasio, S. and Traverso, P., 2014. Il sonno e le routine di addormentamento nei primi anni di vita di un bambino: la prospettiva interattiva genitore– bambino. *Corpo Narrante*, 7, pp. 1-9.
13. El-Sheikh, M., Buckhalt, J.A., Cummings, E.M., and Keller, P., 2007. Sleep disruptions and emotional insecurity are pathways of risk for children. *Journal of Child Psychology and Psychiatry*, 48(1), pp.88–96.
14. El-Sheikh, M., 2011. *Sleep and development: Familial and socio-cultural considerations*. New York, NY: Oxford University Press.
15. El-Sheikh, M., Hinnant, J.B., and Erath, S.A., 2015. Marital Conflict, Vagal Regulation, And Children's Sleep: A Longitudinal Investigation. Monographs of the Society for Research in Child Development, 80(1), pp.89-106.
16. Erath, S.A., and Tu, K.M., 2011. The parenting context of children's sleep. In: M. El-Sheikh, ed. *Sleep and development: Familial and sociocultural considerations*. New York, NY: Oxford University Press. pp.29-47.
17. Galland, B.C., Taylor B.J., Elder D.E., Herbison P., 2012. Normal sleep patterns in infants and children: a systematic review of observational studies. *Sleep Medicine Reviews*, 16(3), pp.213-22.
18. Haskett, M.E., Ahern, L.S., Ward, C.S., and Allaire, J.C., 2006. Factor structure and validity of the parenting stress index-short form. *Journal of Clinical Child and Adolescent Psychology*, 35(2), pp.302–312.
19. Johnson, C. and Mindell, J.A., 2011. Family based interventions for sleep problems of infants and children. In: M. El-Sheikh, ed. *Sleep and development: Familial and sociocultural considerations.* New York, NY: Oxford University Press. pp.373–395.
20. Keller, P.S., Buckhalt, J.A., and El-Sheikh, M., 2008. Links between family functioning and children's sleep. In: A. Ivanenko, ed. *Sleep and psychiatric disorders in children and adolescents.* New York, NY: Informa Health Care. pp.49–59.

21. Kelly, R.J., and El-Sheikh, M., 2011. Marital conflict and children's sleep: Reciprocal relations and socioeconomic effects. *Journal of Family Psychology*, 25(3), pp.412–422.
22. Martin, J., Hiscock, H., Hardy, P., Davey, B., and Wake, M., 2007. Adverse associations of infant and child sleep problems and parent health: An Australian population study. *Pediatrics*, 119(5), pp.947–955.
23. Meijer A.M. and van den Wittenboer G.L.H., 2007. Contribution of infants' sleep and crying to marital relationship of first-time parent couples in the 1st year after childbirth. *Journal of Family Psychology*, 21(1), pp.49–57.
24. Meltzer, L.J., and Mindell, J.A., 2007. Relationship between child sleep disturbances and maternal sleep, mood, and parenting stress: A pilot study. *Journal of Family Psychology*, 21(1), pp.67–73.
25. Mindell, J.A., Telofski L.S., Wiegand B., Kurtz E.S., 2009. A nightly bedtime routine: impact on sleep in young children and maternal mood. *Sleep*, 32(5), pp.599-606.
26. Morrell, J., and Steele, H., 2003. The role of attachment security, temperament, maternal perception, and care-giving behavior in persistent infant sleeping problems. *Infant Mental Health Journal*, 24(5), pp.447-468.
27. Morrell, J., and Cortina-Borja, M., 2002. The developmental change in strategies parents employ to settle young children to sleep, and their relationship to infant sleeping problems, as assessed by a new questionnaire. *Infant and Child Development*, 11(1), pp.17–41.
28. Palmstierna, P., Sepa, A. and Ludvigsson, J., 2008. Parent perceptions of child sleep: a study of 10 000 Swedish children. *Acta Pædiatrica*, 97(12), pp.1631–1639.
29. Sabourin, S., Valois, P., and Lussier, Y., 2005. Development and validation of a brief version of the dyadic adjustment scale with a nonparametric item analysis model. *Psychological Assessment*, 17(1), pp.15-27.
30. Sadeh, A., and Anders, T. F., 1993. Infant Sleep Problems: Origins, Assessment, Interventions. *Infant Mental Health Journal*, 14(1), pp.17-34.
31. Sadeh, A., Flint-Ofir, E., Tirosh, T., and Tikotzky, L., 2007. Infant sleep and parental sleep-related cognitions. *Journal of Family Psychology*, 21(1), pp.74–87.
32. Sadeh, A., Tikotzky, L., and Scher, A., 2010. Parenting and infant sleep. *Sleep Medicine Reviews*, 14(2), pp.89-96.
33. Sinai, D., and Tikotzky, L., 2012. Infant sleep, parental sleep and parenting stress in families of mothers on maternity leave and in families of working mothers. *Infant Behavior and Development*, 35(2), pp.179-186.
34. Smith, V. C., Leppert, K. A., Alfano, C. A., and Dougherty, L. R., 2014. Construct validity of the Parent–Child Sleep Interactions Scale (PSIS): associations with parenting, family stress, and maternal and child psychopathology. *Sleep Medicine,* 15(8), pp.942-951.
35. Spanier, G.B., 1976. Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, 38(1), pp.15-28.
36. Tikotzky, L., Sadeh, A., and Glickman-Gavrieli, T., 2010. Infant sleep and paternal involvement in infant caregiving during the first 6 months of life. *Journal of Pediatric Psychology*, 36(1), pp.36–46.
37. Troxel, W.M., Robles, T.F., Hall, M., and Buysse, D.J., 2007. Marital quality and the marital bed: Examining the covariation between relationship quality and sleep. *Sleep Medicine Reviews*, 11(5), pp.389–404.