
“GHOSTS IN THE NURSERY:” INFANT SLEEP AND SLEEP-RELATED COGNITIONS OF PARENTS RAISED UNDER COMMUNAL SLEEPING ARRANGEMENTS

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ABSTRACT: In an experiment of nature, a normal cohort of parents who were raised under communal sleeping arrangements (CSA) in Israeli kibbutzim are raising their infants at home under home-based family sleeping arrangements. The present study focused on exploring the links between the early sleep experiences of CSA parents and their present sleep-related beliefs and behaviors. In particular, the study assessed whether the cognitions of CSA parents regarding infant sleep differ from cognitions of parents who were raised under home-based family sleeping arrangements. Furthermore, parental soothing methods and infant sleep patterns were compared. One hundred forty-one families participated in this study. The children's ages ranged between 4.5 to 30 months. Parental cognitions were evaluated by two questionnaires. Infant sleep was assessed by a questionnaire and by daily parental reports. As expected, CSA parents were more likely than were control parents to: (a) interpret infant night wakings as a sign of distress and (b) actively soothe their infants at bedtime, co-sleep with them, and report more night wakings of their infants. These findings support the hypothesis that early childhood sleep-related experiences of parents (“Ghosts in the Nursery”) influence their parental sleep-related cognitions that in turn affect infant sleep patterns.

RESUMEN: En un experimento de naturaleza, un grupo normal de padres que habían sido criados bajo arreglos comunales para dormir (CSA) en los kibutz israelíes, está criando a sus infantes en casa bajo arreglos para dormir basados en casa. El presente estudio se enfoca en la exploración de las conexiones entre las anteriores experiencias de dormir de los padres (CSA) y sus actuales creencias y conductas que se relacionan con el dormir. En particular, el estudio evaluó si los aspectos cognitivos de los padres CSA acerca del dormir del infante difieren de los aspectos cognitivos de los padres que fueron criados bajo arreglos de dormir basados en casa. Adicionalmente, los métodos para calmar usados por los padres y los

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patrones de dormir de los infantes fueron comparados. Ciento cuarentayuna familias participaron en el estudio. Las edades de los niños variaron entre los 4.5 y los 30 meses de edad. Los aspectos cognitivos de los padres fueron evaluados por medio de dos cuestionarios. El sueño del infante fue evaluado por medio de un cuestionario y los reportes diarios de los padres. Tal como se esperaba, los padres CSA se mostraron más propensos que los padres del grupo de control a: (a) interpretar los desvelos nocturnos del niño como signos de malestar; (b) calmar activamente a sus infantes a la hora de ir a la cama, dormir con ellos y reportar más desvelos nocturnos de sus infantes. Estos resultados apoyan la hipótesis de que las experiencias de los padres relacionadas con el dormir en la temprana niñez (“Fantasmas en la habitación”) influyen sus aspectos cognitivos que como padres tienen sobre el dormir, lo cual afecta, por tanto, los patrones de dormir del infante.

RÉSUMÉ: Dans une expérience de nature, un groupe normal de parents ayant été élevés selon des arrangements de sommeil communal (ici abrégé ASC) dans des kibbutz israéliens élève leurs enfants à la maison en suivant des arrangements de sommeil basés sur la famille. Cette étude s’est attachée à explorer les liens entre les expériences précoces de sommeil des parents ASC et leurs convictions et comportements actuels pour ce qui concerne le sommeil. Plus particulièrement, l’étude a évalué si les cognitions des parents ASC en ce concerne le sommeil des bébés diffère des cognitions de parents qui ont été élevés en suivant des arrangements de sommeil basés sur la famille, à la maison. De plus, les méthodes parentales d’apaisement et les patterns de sommeil des bébés ont été comparés. Cent une familles ont participé à cette étude. L’âge des enfants allait de 4,5 à 30 mois. Les cognitions parentales ont été évaluées par deux questionnaires. Le sommeil du bébé a été évalué par une questionnaire et des rapports parentaux journaliers. Comme prévu, les parents ASC avaient moins tendance que les parents du groupe de contrôle à: (1) interpréter les réveils la nuit du bébé comme un signe de détresse; (b) à activement apaiser leurs bébés à l’heure de se coucher, à les faire dormir avec eux dans le même lit et à faire état de réveil de leurs bébés la nuit. Ces résultats soutiennent l’hypothèse que les propres expériences liées au sommeil des parents durant leur enfance (“Fantômes dans la Chambre d’Enfant”) influencent leurs cognitions parentales liées au sommeil qui à leur tour affecte les patterns du sommeil de l’enfant.

ZUSAMMENFASSUNG: In einem Naturexperiment wurde eine gewöhnliche Population von Eltern untersucht, die in kommunalen Schalfarrangements (CSA) in israelischen Kibbuzen aufgewachsen sind und deren Säuglinge heute Zuhause innerhalb der Familie aufwachsen. Die vorliegende Studie untersucht den Zusammenhang zwischen den frühen Schlaferfahrungen von CSA Eltern und deren jetzigen Meinungen und Glaubenssätze sowie deren Schlafverhalten. Speziell wird untersucht, ob sich die Kognitionen von CSA Eltern bezüglich kindlichem Schlaf von den Kognitionen von Eltern die Zuhause innerhalb der Familie aufgewachsen sind unterscheiden. Darüber hinaus wurden die elterlichen Methoden um Kindern bei Einschlafen zu helfen mit den kindlichen Schlafmustern verglichen. Einhunderteinundvierzig Familien nahmen an der Studie teil. Die Kinder waren im Alter von 4,5–30 Monate. Die elterlichen Kognitionen wurden mittels zwei Fragebögen erfasst. Das kindliche Schlafverhalten wurde durch Fragebögen und täglichen Elternauskünften ermittelt. Wie erwartet, neigten die CSA Eltern im Gegensatz zu den Kontrolleltern: (a) nächtliches Aufwachen des Kindes als Zeichen von Stress zu interpretieren; (b) die Kinder bewusst beim Einschlafen zu unterstützen, sich vermehrt zu den Kindern dazuzulegen und berichteten von mehr nächtlichen Wachphasen ihrer Säuglinge. Die Ergebnisse unterstützten die Annahme, dass Erfahrungen der eigenen Schlafsituation als Kind heutige Eltern (“Gespenster im Kinderzimmer”) in ihren elterlichen Annahmen über Schlafsituationen beeinflusst, was sich auf das Schlafverhalten der Säuglinge auswirkt.

抄録：自然の実験として、イスラエルのキブツで共同の睡眠状況 communal sleeping arrangements (CSA)のもとで育てられた正常な親のコホートが、在宅の家族の睡眠状況 home-based family sleeping arrangementsのもとに、自分の乳児を家庭で育てている。この研究は、CSAの親の早期の睡眠の経験と、彼らの現在の睡眠に関連した信念と行動との関係を探ることに焦点を当てる。特に、本研究では、乳児の睡眠に関するCSAの親の認知が、在宅の家族の睡眠状況のもとで育てられた親の認知と異なるかどうかを、評価した。さらに、親が子どもをなだめる方法と乳児の睡眠パターンが比較された。141家族がこの研究に参加していた。子どもの月齢は4.5ヶ月から30ヶ月だった。親の認知は二つの質問紙によって評価された。乳児の睡眠は質問紙と毎日の親からの報告によって、評価された。予測されたように、CSAの親は対照群の親よりも(a)乳児の夜間覚醒を苦痛の兆候と解釈しがちであり、(b)就眠時間に積極的に乳児をなだめ、添い寝し、乳児の夜間覚醒をより多く報告しがちであった。この所見は、親の早期児童期の睡眠に関係した経験（「赤ちゃん部屋のお化け」）が、親の睡眠に関係した認知に影響し、それが今度は乳児の睡眠パターンに影響するという仮説を支持する。

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The links between parent-child relationships and the early childhood experiences of the parent have been vividly described by Fraiberg, Adelson, and Shapiro (1975) in their classic article “Ghosts in the Nursery.” In this article, they postulated that even when the bonds between parent and child are strong, “there are a number of transient ghosts who take up residence in the nursery on a selective basis” (p. 388). These ghosts interfere in such areas as feeding and sleep, depending on the vulnerabilities of the parental past. Focusing on infant sleep, Daws (1989) stated that the background of parents’ lives and their personal histories and relationships influence infant development, of which sleep is an important component. Stressful memories parents have about sleep and separation may influence such an apparently simple act as putting a baby to bed.

The present study focuses on exploring the links between early sleep experiences of parents and their present cognitions regarding infant sleep in a group of parents who experienced unique sleeping arrangements as infants and children, but were raising their own infants at home with home-based family sleeping arrangements. These parents grew up in Israeli kibbutzim, where communal sleeping arrangements (CSA; infants sleeping together in groups with minimal adult supervision) was a common child-rearing practice for many years. Note that although the early development of these parents diverged from the “ordinary” path, this did not occur because of trauma, social disruption, or psychopathology but because of a strong ideology of communal child rearing (Sharabany & Wiseman, 1997).

We were interested in understanding whether the special childhood experiences of these parents could explain their beliefs about infant sleep and their interactions with their own infant around sleep. This is an important question to explore from different theoretical and scientific perspectives: (a) from the ecological perspective, which deals with the ways external environmental events influence the functioning of families (Bronfenbrenner, 1986); (b) from the psychodynamic perspective, asking in what way is the experience of parents as children repeated toward their own offsprings, and in what way is it modified and reworked (Bretherton, Lambert, & Golby, 2006; Fraiberg et al., 1975); and (c) from the children’s sleep research perspective, which is interested in the possible influences of parental behaviors and perceptions on the development of infant sleep (Sadeh & Anders, 1993).

COMMUNAL SLEEPING ARRANGEMENT IN THE ISRAELI KIBBUTZ

Until the 1990s, the kibbutz used to be a small agricultural community characterized by a high level of interdependence in everyday life. This was manifested, among other things, in communal responsibility for childcare (Lev-Wiesel, 2000; Sharabany, Mayseless, Edri, & Lulav, 2001). Most of the kibbutzim practiced CSA for their children. Thus, from infancy, children spent only a few afternoon hours with their parents, staying most of their day and night in special children's homes in groups of about six to eight children. Parents were allowed to put their children to bed and mothers were allowed to come for breastfeeding, but as a rule, had to leave during the night. Caregiving was provided by two watchwomen, who were responsible for all the children. Since these women were rotating on a weekly basis, they were often unfamiliar to the infants. Under these conditions, it was difficult for them to respond sensitively and steadily to the needs of all children (Aviezer, van IJzendoorn, Sagi, & Schuengel, 1994; Oppenheim, 1998; Sharabany et al., 2001).

The different life conditions created by CSA have attracted the attention of many investigators. Numerous studies have been conducted to study the effects of children's sleeping arrangements on the family unit and on the personality of the communally raised children (for a comprehensive review, see Aviezer et al., 1994; Sharabany & Wiseman, 1997). Research focusing on the impact of sleeping arrangement on family cohesion has suggested that these conditions may have far-reaching effects on interactive patterns within the family (Palgi & Raviv, 1985). For example, Lev-Wiesel (2000) focused on the effects of collective sleeping on fatherhood, and found that fathers of children sleeping at home were more involved with their children's lives and showed higher levels of satisfaction from fatherhood than were fathers of children sleeping under communal settings. Research focusing on child attachment and personality has demonstrated that infants raised in kibbutzim with CSA were less securely attached to their mothers than were infants raised in home-based kibbutzim. These findings were interpreted in terms of the impact of the ecology of collective sleeping, which created an inconsistent environment of maternal care (Oppenheim, Sagi, & Lamb, 1988; Sagi, van IJzendoorn, Aviezer, Donnell, & Mayseless, 1994; Sagi et al., 1997). Moreover, children raised under CSA were found to have, as adolescents, restricted emotional expression in their close relationships (Regev, Beit-Hallahmi, & Sharabany, 1980) and restricted self disclosure compared with children raised in familial sleeping kibbutzim and city children (Sharabany & Wiseman, 1997).

An important question rising in this context is whether there are long-term effects of sleeping arrangements in childhood on adults' attachment and parenting. In general, the few studies examining the long-term effects have indicated that kibbutz children grow up to be well-functioning adults. For instance, in contrast to the findings on children, married couples in the kibbutz did not differ from city couples on a measure of intimacy with their spouses (Sharabany & Wiseman, 1997); however, these studies also have raised questions regarding more specific aspects of emotional development and attachment relationships (Oppenheim, 1998). For example, Sharabany et al. (2001) studied the long-term effects of variations in childhood sleeping arrangements (communal vs. familial sleeping arrangement in kibbutzum) on attachment styles of mothers. No differences in attachment security or in the reported availability of significant others in childhood were found between the groups. However, women who were raised communally tended toward the caretaker style (Mayseless, 1996), which reflects a combination of being insecure and dismissive as far as the needs of the self are considered while also being highly socially connected by providing care and helping others. This pattern may evolve in

situations where the original caregiver was not able to provide protection. In addition, Sharabany et al. (2001) found that mothers who were raised under CSA and raised their own infants under CSA had negative evaluations of their infants' sleeping arrangements. In particular, these mothers described the CSA as providing less security, arousing more depression, and causing more delay in development. Mothers who were raised similarly under CSA, but were raising their infants under familial sleeping arrangements, were just as satisfied with their child's familial sleeping as were mothers who did not experience CSA; however, they had a negative view of being raised under CSA themselves.

During the last decades, the kibbutz has undergone vast socioeconomic changes. Among other things, these changes resulted in a movement promoting home-based sleeping arrangements. Most of the proponents for discontinuing CSA were women who themselves were raised according to this method, but did not want their children to experience possible painful aspects of their own childhood (Oppenheim, 1998). In the late 1990s, CSA was completely abolished after a collective policy decision.

In the present study, we were interested in examining how parents who experienced CSA as an integral part of their childhood would react to the complex and sensitive situation of nighttime separation from their infants, and whether the sleep of their infants would be different from the sleep of control infants. Before discussing these questions, we briefly review the literature on infant sleep development and on the links between parent–infant interaction, parental sleep-related cognitions, and infant sleep problems.

INFANT SLEEP AND PARENT–INFANT INTERACTION

The evolution of sleep consolidation and sleep regulation at night is one of the major psychobiological developmental tasks of infancy (Anders & Keener, 1985; Mirmiran, Baldwin, & Ariagno, 2003). Brief awakenings during the night are a natural phenomenon characterizing the sleep of most infants and children. However, failures in the process of nighttime sleep consolidation, manifested in prolonged and repeated night wakings and in the inability to resume sleep without parental help, constitute a significant developmental problem for infants and their parents (Anders, 1994; Mindell, Kuhn, Lewin, Meltzer, & Sadeh, 2006). Studies have demonstrated that as many as 20 to 30% of all infants do not develop the ability to “sleep through the night” or to self-soothe after awakening (Anders, Halpern, & Hua, 1992; Burnham, Goodlin-Jones, Gaylor, & Anders, 2002; Mindell et al., 2006). The importance of early intervention in this domain is highlighted by findings from longitudinal research that has demonstrated that sleep disturbances can be very persistent (Kataria, Swanson, & Trevathan, 1987; Zuckerman, Stevenson, & Bailey, 1987) and that disturbed infant sleep may have a deleterious impact on child behavior, family functioning, and parent–child relationships (Daws, 1989; Hiscock & Wake, 2002; Siskind, 1997).

Numerous physiological and psychosocial factors have been found to be associated with infant sleep problems (Mindell, 1993; Mindell, Owens, & Carskadon, 1999; Morrell, 1999; Sadeh & Anders, 1993). For example, sleep problems are sometimes related to infant factors such as health problems and temperament (Carrol & Louglin, 1995; Sadeh, Lavie, & Scher, 1994), and to parental and family factors such as maternal depression, mother–infant separation, and insecure attachment in the child and in the mother (Anders, 1994; Benoit, Zeanah, Boucher, & Minde, 1992; Dennis & Ross, 2005; Field, 1991; Moore, 1989; Morrell & Steele, 2003; Sadeh,

1996a; Scher & Blumberg, 1999). Perhaps the most consistent findings regarding the origins of sleep problems in infancy are related to the links between night wakings and parental interactive behaviors around bedtime and at night, such as cuddling to sleep and feeding (Adair, Bauchner, Philipp, Levenson, & Zuckerman, 1991; Johnson, 1991; Morrell & Cortina-Borja, 2002; Sadeh, 2005).

The influence parents may have on their infants' sleep patterns has been demonstrated in behavioral intervention studies for sleep problems. These interventions have consistently shown that infant's sleep can improve dramatically when parents succeed in changing their bedtime involvement and reducing their active or physical soothing patterns at night (Kuhn & Elliott, 2003; Mindell et al., 2006; Sadeh, 2005). Moreover, prevention studies have demonstrated that increasing parental knowledge of infant sleep prior to the child's birth can prevent infant sleep problems (Kerr, Jowett, & Smith, 1996; Wolfson, Lacks, & Futterman, 1992). However, note that there is a theoretical debate regarding the consequences of these interventions for the infants' development. Researchers have argued that solitary sleeping and expecting infants to self-soothe runs counter to the infant's basic biological and emotional needs (McKenna, Ball, & Gettler, 2007; McKenna & Volpe, 2007). Moreover, parental practices (e.g., solitary sleeping vs. co-sleeping) vary vastly according to culturally based values, ethnic background, and socioeconomic status (Jenni & O'Connor, 2005; Lozoff, 1995; McKenna & Volpe, 2007).

INFANT SLEEP AND PARENTAL COGNITIONS

Parental cognitions refer to an array of attitudes, attributions, expectations, interpretations, and beliefs parents have regarding their children (Bugental & Johnston, 2000). Parental cognitions and child-rearing attitudes may be influenced by a variety of factors including parental personality, psychopathology, and cultural values as well as by early personal experiences and memories (Bugental, Johnston, New, & Silvester, 1998; Crowell & Feldman, 1989; Holden & Edwards, 1989; Main, Kaplan, & Cassidy, 1985; McKenna, 2000; Miller, 1995; Morrell, 1999; Ricks, 1985).

The role of parental cognitions in family relationships and in child development has received increasing attention during the last 2 decades (Bugental & Johnston, 2000; Holden & Edwards, 1989; Miller, 1995). Parental cognitions regarding child behavior have been significantly associated with the way parents respond to their children and have been associated with child development and parent-child interactions (Bugental, 2000; Hastings & Grusec, 1998; Miller, 1995; Slep & O'Leary, 1998).

A few studies have directly examined the links between parental cognitions and infant sleep. These studies have demonstrated that parental sleep-related cognitions are significantly associated with infant sleep problems (Morrell & Steele, 2003; Morrell, 1999; Sadeh, Flint-Ofir, Tirosh, & Tikotzky, 2007; Tikotzky & Sadeh, 2009; Toselli, Farneti, & Salzarulo, 1995). Morrell (1999) found that infant sleep problems are significantly correlated with maternal cognition related to difficulty with limit-setting, increased doubts about parenting competence, and increased anger at the infant's demands. A follow-up study demonstrated that the most relevant factors for concurrent sleeping problems were maternal cognition reflecting concerns about setting limits and fussy-difficult temperament (Morrell & Steele, 2003). Morrell (1999) suggested that in the stressful situation of infant night waking, it may be that problematic cognitions lead to intrusive or rejecting parental interactions which further maintain the problem.

In a study assessing the links between infant sleep and parental sleep-related cognitions in clinical and control samples, significant group differences with regard to the parental cognitions were found (Sadeh et al., 2007). For example, parents of sleep-disturbed infants reported more concerns and difficulties with limit-setting than did control parents. Significant differences also were found between fathers and mothers on the Cognitions scale. Given hypothetical examples of infants with sleep problems, fathers were more likely than were mothers to endorse a limit-setting approach (Sadeh et al., 2007). In a longitudinal study (from pregnancy through the first year) aimed at assessing maternal sleep-related cognitions and infant sleep, significant predictive and concomitant links between maternal cognitions and infant sleep were demonstrated. Specifically, maternal cognitions (already present during pregnancy) emphasizing infants' distress and the need to directly soothe them predicted and were associated with more disturbed infant sleep at 6 and 12 months of age while maternal cognitions emphasizing the importance of limiting parental nighttime involvement predicted and were associated with more consolidated sleep. In addition, parental soothing techniques served as a mediating variable between maternal cognition and infant sleep: When mothers put more emphasis on infants' distress, they were more likely to be actively involved in soothing their infants to sleep, and increased use of active soothing was related to more disturbed sleep (Tikotzky & Sadeh, 2009).

STUDY GOALS AND HYPOTHESES

It has been argued that parents' childhood nighttime experiences may explain to some degree the developing sleep patterns of their infants (Anders, 1994; Daws, 1989); however, to our knowledge there are no studies that have directly assessed these links.

The aim of the present study was to explore the links between parents' early experiences, their present sleep-related beliefs and behaviors, and their infants' sleep. We assumed that because parents who experienced CSA as children were deprived of parental availability or stable caretaking during night waking (Aviezer et al., 1994; Sharabany et al., 2001), they would differ from control parents in their interpretations of the meaning of infant awakening and crying at night and in their nighttime behavior. In particular, we hypothesized that: (a) Parents who were raised under CSA would be more inclined to interpret infants' night wakings as a sign of distress and need for help, and would emphasize less the importance of infant self-soothing; and (b) parents who were raised under CSA would use more active soothing at night than would control parents, and their infants would demonstrate more fragmented sleep (i.e., more night wakings) than would control infants.

Because the CSA families included those in which both parents were raised communally as well as those in which only one parent experienced CSA, we also were interested in understanding whether parental soothing behaviors and infant sleep patterns would vary depending on the degree of parental CSA exposure. Specifically, we wanted to examine the possibility that couples who were both raised under CSA would be more actively involved in nighttime soothing and would have infants with more fragmented sleep than would couples in which only one parent experienced CSA.

Finally, regardless of the differences between the groups, we tested the hypothesis that in the general sample (CSA and control), parental sleep-related cognitions would be significantly associated with parental soothing behavior and patterns of infant sleep: Parental cognitions emphasizing the infant's distress at night would be associated with higher levels of active soothing and with more fragmented sleep.

A special effort was made to study both mothers' and fathers' cognitions. Although most studies in the field of parenting and child development have been based on mothers, research has suggested that fathers have a significant role in child development in general, and in infant sleep problems in particular (Connell & Goodman, 2002; Lamb, 1997; Montague & Walker-Andrews, 2002; Sadeh et al., 2007; Winsler, Madigan, & Aquilino, 2005).

METHOD

One hundred forty-one infants, toddlers, and their parents from two-parent families participated in this study. The CSA sample consisted of 42 families, and the control sample consisted of 99 families.

Infant Characteristics

The infants in both groups were between the ages of 4.5 to 30 months. Mean age of infants in the CSA group was 15.2 ± 5.9 months. In this group, 47.6% were boys, and 59.5 were first-born. Mean age of infants in the control group was 15.6 ± 6.4 months. In this group, 60.6 were boys, and 56.6 were first-born. Children with suspected medical problems, including breathing-related sleep problems, were excluded from the study.

Parents' Characteristics

The CSA group included 20 couples in which both parents were raised under CSA, 10 couples in which only the mother experienced CSA, and 12 couples in which only the fathers were raised under CSA; therefore, there were 30 CSA mothers and 32 CSA fathers. CSA mothers were raised 14.08 years, on average, under CSA. Fathers experienced CSA for 16.30 years, on average. Parents in this group were recruited mainly through announcements in kibbutzim throughout the country or on Internet forums.

All CSA parents raised their infants at home with home-based family sleeping arrangements. Note that the change from communal sleeping arrangements to home-based child sleeping arrangements was not a result of intervening individual decisions and variables of the parents but rather a global ecological-political evolution. For this generation of parents, the change has occurred in all kibbutzim in the country.

Control parents grew up in home-based family sleeping arrangements, most of them in the city. They were recruited for the study in the companies where they were employed. Approximately half of the sample participated as a normal control group in an earlier study (Sadeh et al., 2007). Only two-parent families, with both parents willing to participate, were included in this study.

Both samples were comprised of middle-upper socioeconomic class families. No significant group differences were found in any of the demographic variables. Mean age of CSA mothers was 32.9 ± 3.4 (range = 23–40) years and of fathers, 33.6 ± 3.5 (range = 27–49) years. Mean years of mothers' education was 15.4 ± 2 (range = 12–20) years and of fathers, 14.7 ± 1.9 (range = 12–18) years. Mean age of control mothers was 31.4 ± 3.5 (range = 22–40) years and of fathers, 33.9 ± 4.3 (range = 26–49) years. Mean years of mothers' education was 15.8 ± 2.4 (range = 12–23) years and of fathers, 15.6 ± 2.4 (range = 12–22) years.

Procedure

The study was approved by the University Institutional Ethical Committee. Parents signed informed consent. Parental cognitions were assessed by two questionnaires: the Infant Sleep Vignettes Interpretation Scale (ISVIS; Sadeh et al., 2007) and the translated version of Morrell's (1999) questionnaire, the Maternal Cognitions about Infant Sleep Questionnaire (MCISQ). Both questionnaires were completed independently by fathers and mothers. Infant sleep was assessed by daily parental reports for 5 consecutive days and by the Brief Infant Sleep Questionnaire (BISQ; Sadeh, 2004). In addition, parents were asked to complete a family background questionnaire. All questionnaires were completed at home.

Instruments

Assessment of Parental Sleep-Related Cognitions. The ISVIS was described in detail and validated in a previous study (Sadeh et al., 2007). The ISVIS includes 14 hypothetical vignettes about infants who display sleep problems (i.e., find it difficult to fall asleep and resume sleep by themselves). Following each vignette, parents are asked to rate their agreement with each of three different assertions reflecting possible interpretations for addressing the problem [on a Likert-type scale from 1 (*highly disagree*) to 6 (*highly agree*)]. These three interpretations represent the following categories: (a) *Distress*: assertions that represent the parental belief that while awake in bed, infants experience distress or anxiety and parents should therefore directly help or soothe them; (b) *Limits*: assertions that emphasize the importance of limiting parental involvement and focus on encouraging the infant to learn self-soothing without or with minimal parental assistance; and (c) *Temperament*: assertions that emphasize the role of the child's character or temperament in explaining the sleep problem, regardless of what parents do. Parents are asked to rate their agreement on these scales on all 14 vignettes. The different items are then averaged across the vignettes on the three scales (Distress, Limits, and Temperament). Good internal reliability based on Cronbach's α of above .90 was found for the three scales.

The Parental Cognitions about Infant Sleep Questionnaire (PCISQ) (Sadeh et al., 2007) is a translated version of Morrell's (1999) MCISQ. Morrell's questionnaire is aimed at directly assessing cognitions that mothers have about their infant's sleep. The questionnaire is a Likert-type scale ranging from 1 to 6 with 20 items. The parents are asked to rate their agreement with different assertions reflecting difficulties or concerns with the following five domains/scales: (a) Limit setting (difficulties setting limits or resisting the infant's demands at night), (b) Anger (negative feelings toward the infant at night), (c) Doubt (doubts about parental competency), (e) Feeding (concerns about feeding issues during the night), and (f) Safety (concerns about the child's safety during the night). High scores represent negative concerns and doubts on all these scales. Internal consistency (based on Cronbach's α) for the different scales ranged between .80 and .84 (Morrell, 1999). In the present study, we administered the Hebrew version of the questionnaire to both mothers and fathers. The Hebrew version was validated in a previous study (Sadeh et al., 2007). The internal reliability obtained in that study ranged between .65 and .72.

Assessment of Sleep and Soothing Patterns. The sleep diary has been developed for clinical and developmental research on infant sleep (Sadeh, 1994, 1996b, 2004). To assess infants' sleep from the parental perspective, parents are asked to complete a daily report on their infant's sleep

patterns. In this study, we used only the Night-Wakings measure (number of wakings, of any length, during nocturnal sleep).

The BISQ is a sleep questionnaire aimed at assessing the infant's averaged sleep patterns. The questionnaire was validated in a previous study, and its measures were found to be highly correlated with the sleep diary and actigraphic measures (Sadeh, 2004). The derived measures are (a) sleep latency, (b) nocturnal sleep duration, (c) daytime sleep duration, (d) total sleep duration, (e) nocturnal wakefulness, and (f) number of night wakings.

Two of the BISQ measures were used to assess sleep ecology and soothing patterns: (a) sleep location (infant's crib in a separate room, infant's crib in parents' room, infant in parents bed); and (b) method of falling asleep [level of parental involvement at bedtime (active help: infant falls asleep while feeding or being rocked or in parents' bed, falls asleep with parental assistance in crib; no help: infant falls asleep by himself/herself)].

RESULTS

Data analysis included three major components: (a) group comparisons of parental cognitions, (b) group comparisons of soothing methods and sleep measures, and (c) assessment of the correlations between sleep measures and parental cognitions in the total sample.

Group and Parent-Related Differences on Parental Cognitions

For group comparisons of parental cognitions, sleep-related cognitions of CSA mothers were compared to the cognitions of control mothers, and sleep-related cognitions of CSA fathers were compared to those of control fathers. We did not assess the cognitions of CSA spouses who were not raised themselves under CSA.

Multivariate Analysis of Covariance (MANCOVA) with group and sex (of the infant) as independent measures was performed on the Parental Cognitions scales. Infant age was entered as a covariate because of the relatively large age range of the sample (4.5–30 months). No significant infant sex or Sex \times Group interaction effects were found; therefore, results are reported for the group differences only.

Significant group differences were found on all the ISVIS subscales, and on one of the PCISQ subscales (see Table 1). On the ISVIS Distress subscale, both mothers and fathers in the CSA group rated higher than did parents in the control group, indicating that they were more concerned with the possibility that upon awakening at night, infants experience distress. On the ISVIS Limits subscale, fathers in the CSA group emphasized less the importance of limit-setting at night than did fathers in the control group. No significant differences were found for mothers on this scale. On the ISVIS Temperament subscale, mothers in the CSA group emphasized more the role of the infant's nature in explaining infant sleep-related behaviors than did control mothers.

Regarding the PCISQ subscales, fathers in the CSA group rated higher than did control fathers on the Doubts about Parenting subscale. The difference between the mothers on the Limits subscale approached significance, $F(1, 123) = 3.72, p = .056$, indicating that mothers in the CSA group tended to experience more difficulties with setting limits for their infant than did control mothers.

TABLE 1. Differences Between CSA Parents and Controls in Cognitions About Infant Sleep (Analyses Were Performed Separately for Mothers and Fathers) (Means, SDs, and F Values)

| Scales | | CSA | Control Group | F Group |
|----------|--------|-------------|---------------|---------|
| ISVIS | | | | |
| Distress | Mother | 4.64 ± .86 | 4.22 ± .80 | 6.14* |
| | Father | 4.50 ± .99 | 4.08 ± .81 | 5.26** |
| Limits | Mother | 2.82 ± 1.0 | 3.11 ± .93 | 2.06 |
| | Father | 2.82 ± 1.17 | 3.40 ± .90 | 7.09** |
| Temp | Mother | 3.44 ± .87 | 2.98 ± .91 | 5.75* |
| | Father | 3.33 ± .90 | 3.01 ± 1.00 | 2.32 |
| PCISQ | | | | |
| Anger | Mother | 2.27 ± .40 | 2.31 ± .61 | 0.11 |
| | Father | 2.32 ± .53 | 2.24 ± .57 | 0.42 |
| Limits | Mother | 3.49 ± .67 | 3.26 ± .53 | 3.72 |
| | Father | 3.41 ± .47 | 3.27 ± .56 | 1.6 |
| Doubt | Mother | 2.43 ± .60 | 2.44 ± .66 | 0.00 |
| | Father | 2.74 ± .62 | 2.36 ± .57 | 9.01*** |
| Safety | Mother | 2.10 ± 1.06 | 2.02 ± 1.08 | 0.12 |
| | Father | 2.22 ± 1.03 | 1.93 ± 1.24 | 1.69 |
| Feed | Mother | 2.84 ± 1.48 | 2.68 ± 1.16 | 0.39 |
| | Father | 2.77 ± 1.40 | 2.56 ± 1.18 | 0.68 |

CSA = Communal Sleeping Arrangement; ISVIS = Infant Sleep Vignettes Interpretation Scale; PCISQ = Parental Cognitions about Infant Sleep Questionnaire; Temp = temperament. The ISVIS was completed by 95 control mothers and 94 control fathers; the PCISQ was completed by 98 control mothers and 94 control fathers. Both questionnaires were completed by 30 CSA mothers and 32 CSA fathers.

* $p < .05$. ** $p < .01$. *** $p < .005$.

Group Comparison on Soothing Measures and Infant Sleep

For group comparisons of soothing methods and sleep measures, we examined the differences between three types of groups: (a) full CSA (both parents experienced communal sleeping), (b) mixed CSA [only one of the parents (mother or father) were raised communally], and (c) a control group (no parents with a history of communal sleeping; this type of grouping was not used for the comparison of parental cognitions because the cognitions scales measure an individual parental measure and not a familial measure).

MANCOVA with group and infant sex as independent measures and age as a covariate was performed on the BISQ and sleep diary sleep measures. No significant sex or Sex × Group interaction effects were found; therefore, the results are reported for the group differences only.

A chi-square test revealed significant differences in bedtime soothing and in infant sleep location between the three groups (Table 2). According to a post hoc analysis, parents who were raised under CSA were more likely to actively soothe their infants at bedtime, as compared to the control group, whereas infants in the control group were more frequently self-soothers at bedtime compared to both CSA groups. Parents who were both raised under CSA were more likely to have their infants co-sleep with them than were the control parents.

Significant differences were found on the number of night wakings according to the parental diaries (Table 3). As expected, as compared to control infants, infants in the CSA group had an

TABLE 2. *Frequencies of Soothing Methods at Bedtime and Sleep Location in the CSA and Control Groups*

| | CSA Both Parents <i>n</i> = 20 | CSA One Parent <i>n</i> = 22 | Control Group <i>n</i> = 88 |
|---|-----------------------------------|---------------------------------|--------------------------------|
| Method of bedtime soothing | % | % | % |
| By himself/herself in crib | 25.00 | 18.18 | 53.45 |
| With parental assistance in crib | 15.00 | 40.91 | 15.52 |
| With active help (feeding, cuddling) or in parent's bed | 60.00 | 40.91 | 31.03 |
| Location of night sleep | % | % | % |
| In crib in separate room | 50.00 | 68.18 | 71.59 |
| In crib in parents room | 10.00 | 9.09 | 19.32 |
| In parent's bed | 40.00 | 22.00 | 9.09 |

CSA = Communal Sleeping Arrangement.
 Bedtime soothing: $\chi^2 = 10.47, p < .01$. Sleep location: $\chi^2 = 10.71, p < .005$.

increased number of night wakings. A post hoc (Tukey) analysis indicated that the statistically significant difference was between infants of parents who were both raised under CSA (i.e., full CSA) and infants in the control group.

Correlations Between Parental Cognitions and Infant Sleep Measures

Table 4 presents Pearson correlations between the Parental Cognition subscales and between the soothing measures and infant night wakings for the total sample. Significant correlations were found between the diary night-waking measure and between the Maternal Distress subscale, the parental PCISQ Limits subscale, and the paternal PCISQ Feeding and Doubts subscales. In general, these findings indicate that increased reported difficulty in limit-setting and a stronger emphasis on the infant's distress at night are associated with more night wakings.

TABLE 3. *Infant Sleep Measures in the CSA and the Control Groups (Means ± SDs and F Values)*

| | CSA Both Parents <i>n</i> = 20 | CSA One Parent <i>n</i> = 22 | Control Group <i>n</i> = 99 | <i>F</i> |
|----------------------------|-----------------------------------|---------------------------------|--------------------------------|----------|
| BISQ Sleep Measures | | | | |
| Sleep latency (hr) | 0.51 ± .45 | 0.39 ± .27 | 0.39 ± .32 | 1.04 |
| Sleep duration-night (hr) | 9.80 ± .92 | 9.85 ± .91 | 9.67 ± .98 | 0.53 |
| Napping (hr) | 2.68 ± 1.36 | 2.32 ± .67 | 2.35 ± .76 | 1.44 |
| Nocturnal wakefulness (hr) | 0.21 ± .42 | 0.19 ± .61 | 0.37 ± .80 | 0.74 |
| Total sleep duration (hr) | 12.58 ± 1.19 | 12.17 ± 1.09 | 12.03 ± 1.13 | 1.30 |
| Night wakings (no.) | 2.37 ± 1.38 | 2.41 ± 2.30 | 1.88 ± 1.66 | 1.24 |
| Parental Diary Measures | | | | |
| Night wakings (no.) | 2.57 ± 2.02 | 1.60 ± 1.62 | 1.56 ± 1.47 | 3.43* |

CSA = Communal Sleeping Arrangement.
 **p* < .05.

TABLE 4. Pearson Correlations Between Parental Cognition Scales, Infant Sleep, and Soothing Measures

| Parental Cognitions | | NW-Diary | NW-BISQ | Sleep Latency | Bedtime Soothing | Sleep Location |
|---------------------|--------|----------|---------|---------------|------------------|----------------|
| ISVIS | | | | | | |
| Distress: | Mother | .23* | .05 | .13 | .46*** | .42*** |
| | Father | -.02 | -.12 | .16 | .30** | .14 |
| Limits: | Mother | -.19 | -.08 | -.06 | -.42*** | -.41*** |
| | Father | -.09 | -.17 | -.19* | -.36*** | -.23* |
| Temp: | Mother | .16 | .15 | .02 | .34** | .20* |
| | Father | .09 | .19* | .16 | .20 | -.02 |
| PCISQ | | | | | | |
| Limits: | Mother | .21* | .14 | .09 | .14 | .15 |
| | Father | .21* | .18* | .06 | .10 | .07 |
| Anger: | Mother | .06 | .06 | .05 | .03 | .01 |
| | Father | .04 | .00 | .08 | .07 | .07 |
| Doubt: | Mother | .05 | .04 | .09 | -.12 | .01 |
| | Father | .08 | .17* | .07 | -.13 | .09 |
| Feeding: | Mother | .05 | .02 | .19* | .38** | .24* |
| | Father | .23* | .12 | .16 | .25* | .13 |
| Safety: | Mother | -.14 | -.09 | .19* | .13 | -.09 |
| | Father | .06 | -.01 | .00 | .01 | -.13 |

ISVIS = Infant Sleep Vignettes Interpretation Scale; PCISQ = Parental Cognitions about Infant Sleep Questionnaire; NW-diary = Night wakings according to parental diaries; NW-BISQ = Night wakings according to the Brief Infant Sleep Questionnaire (BISQ).

* $p < .05$. ** $p < .005$. *** $p < .001$.

To assess the correlations between parental cognitions and soothing, we created a Bedtime Soothing subscale, based on the BISQ bedtime soothing measure, ordering from low involvement to high involvement. Similarly, we built a Sleep Location subscale ordering from separate sleeping to co-sleeping. The correlations between parental cognitions and soothing indicated that increased ratings on the Distress cognition subscale are associated with more parental involvement in soothing at bedtime and with a higher tendency to co-sleep at night. Increased ratings on the Limits cognition subscale are associated with lower parental involvement and with independent infant sleep location (see Table 4).

DISCUSSION

The present study afforded a special opportunity to explore the relationship between early childhood experiences of parents and their current parenting. By focusing on a group of parents who experienced CSAs as infants and children and comparing them to a matched control group of parents who experienced home-based family sleeping arrangements, we could demonstrate empirically how the “Ghosts in the Nursery” are manifested in parental present perceptions and practices. Different studies, many of them based on the attachment theory perspective, have explored the influence of parents’ own past childhood experiences and early memories

on parenting beliefs and on their capacity to provide sensitive parenting (Crowell & Feldman, 1989; Fraiberg, 1980; Main et al., 1985; Ricks, 1985). However, this is the first study to demonstrate these links in the domain of infant sleep, which is an area of major concern for many parents during the first years of life. In particular, our findings suggest that parents' early childhood sleeping experiences explain their current perceptions and beliefs regarding infant sleep. In addition, the findings show that early sleeping experiences of parents and their present cognitions are related to the sleeping patterns of their infants. However, before addressing in more detail the specific results of our study and its broader scientific and clinical implications, we would like to specify its limitations. The assessment of infant sleep was based solely on subjective reports, although research has demonstrated that parental reports on infant sleep have considerable limitations mainly related to the fact that parents are unaware of many of their infants' nighttime awakenings (Sadeh, 1994, 1996b). In addition, associations between reported sleep and maternal cognitions, which are both based on subjective perceptions, may be influenced by shared method variance. Furthermore, although we believe that the inclusion of fathers contributed significantly to the study's findings, it may have led to a somewhat biased sample of couples in which the fathers are more involved in childcare.

Despite these limitations, the results of the present study suggest that there are complex links between parents' early sleep experiences, their current beliefs regarding infant sleep, and actual infant sleep ecology and sleep quality.

Differences in Sleep-Related Cognitions Between CSA Parents and Controls

The issue of having a "ghost in the nursery" (Fraiberg et al., 1975), in the sense of presence of the parents' past in the present relationship with their offsprings, receives strong support in the findings of the present study. Significant links were found between the way CSA parents experienced their own sleep in their childhood and between their present beliefs regarding infant sleep. The findings demonstrate that both mothers and fathers who were raised under CSA rated significantly higher on the ISVIS Distress subscale than did parents in the control group. When faced with hypothetical vignettes about infants with sleep problems, parents in the CSA group emphasized more the possibility that infants experience distress upon awakening at night and that their parents should therefore directly approach them and help them to resume sleep. Moreover, in their interpretations of the vignettes, fathers in the CSA group emphasized less the importance of limit-setting at night than did fathers in the control group. Overall, these findings suggest that CSA parents are more likely to be reactive to the infant's signs of distress (Lundy, 2003) than are parents who grew up sleeping in their parents' homes. One possible explanation for these findings is that parents who were raised under CSA develop a heightened sensitivity to the affective meaning of infants' nighttime awakenings (Aviezer et al., 1994). Clinical experience has suggested that when parents interpret their infant's crying at night as a sign of anxiety or distress, then not responding immediately to the infant's crying or trying to set limits at night might be perceived as insensitive, neglectful, or even abusive to the child (Daws, 1989; Sadeh, 2005; Siskind, 1997). This is likely to be true for the CSA parents because facing these nighttime situations may echo their own early childhood experiences associated with waking at night, away from their parents, and receiving very little attention. In other words, endorsing the distress interpretations, which emphasize the need to offer comfort to the infant at night, may serve as a compensatory mechanism (Bretherton et al., 2006; Rutter, 1989; Sharabany, Scher, & Gal-Krauz, 2006) for the experience related to the little involvement they received from their

caregivers at night. An example of the painful feelings that some of these parents carry was given by a mother who responded to an open question about memories regarding communal sleeping:

I was about 8 years old. I woke up at night and vomited in bed. I was very frightened, the bed was dirty. I sat crying in bed and called for the watchwoman to come. This memory is accompanied by hard feelings of helplessness, pain and fear. Retrospectively, I feel a kind of anger about the parents who abandoned us in the “jungle” of the children’s house.

Another mother referred to her wish for reparation: “I would never agree to raise my kids under communal sleeping! Although it was fun, there were many moments of loneliness and longing.” These responses reflect the awareness of some of the parents of their wish to compensate with their own infants for the stressful distance from their parents that they had experienced. In a different study, a similar sample of mothers who experienced the change from CSA to home-based arrangement for their children were critical of their own CSA when they were infants (Sharabany et al., 2001).

Besides the stronger emphasis that CSA parents put on the distress cognitions, it was found that mothers in the CSA group rated higher than did control mothers on the ISVIS Temperament subscale, meaning that they have stronger belief in the role of temperament in explaining infant sleep-related behaviors. Why do CSA mothers stress more the importance of the infant’s temperament? Although speculative, one possibility is that temperament interpretations justify the attitude of adapting themselves to their infant’s needs. In other words, if the meaning assigned to the infant’s night wakings is that it is in the child’s nature to wake up at night, then there is no point in trying to set limits or resist the child’s demands. This internal interpretation might help the CSA mothers to deal with their own “ghost in the nursery” and with their needs to offer protection and proximity to their infant at night. This attitude resembles Raphael-Leff’s (1983, 1986) conceptualization of the *Facilitator* mother who believes the baby “knows best” (or in the study’s context, that it is in the baby’s nature), and thus, the environment should be adapted to the baby. This is in contrast to the *Regulator* mother who thinks the baby must learn to adapt him- or herself to the environment.

The findings demonstrate that fathers in the CSA group rated higher than did control fathers on the Doubts about Parenting subscale. This means that when faced with infants’ night wakings, the CSA fathers might experience more doubts about their parental abilities or feel that in some way they are being a bad parent if they try to resist the infant’s demands and set limits (Morrell, 1999). Interestingly, there were no differences between the mothers in the two groups on the Doubts about Parenting Competency cognition subscale.

Differences in Soothing Patterns Between CSA and Control Parents

The compensatory strategies that CSA parents adopt were expressed further in their reported behavior at bedtime. In comparison to the control group, parents in the CSA group were more likely to take an active role in soothing their infant to sleep at bedtime (e.g., nursing, cuddling), and their infants were less likely to fall asleep by themselves in their own bed. In addition, it was found that CSA parents were more likely to co-sleep as compared to control parents. These findings may indicate that as a group, CSA parents find it harder to separate from their infants at night (Tikotzky & Sadeh, 2009). Within Bowlby’s (1969) attachment theory, sleep-related separations are expected to be accompanied by feelings of worry and anxiety. Indeed,

when children in CSA were studied using the Strange Situation that measures attachment to parents, based upon separation and reunion episodes, they showed high frequency of insecurity, particularly anxious style which investigators attributed to their night experience (Sagi et al., 1994). Although we did not evaluate parental separation anxiety, it is plausible that separating from their infants and putting them to sleep in a different room evokes heightened anxiety and uncertainty, and is associated for some of these parents with feelings of fear, nervousness, and loneliness that they try to avoid. Under such conditions, it is natural for these parents to organize their psychological and behavioral strategies to protect the child (Solomon & George, 1986). It seems likely, then, that the tendency of CSA parents in this study to co-sleep and to actively soothe their infant to sleep reflects their wish to provide protection to their infant. It could be that because of their own past, CSA parents may perceive their infant in the situation of nighttime sleep as helpless. However, note that this is a speculative explanation and that the correlational nature of the study makes it difficult to infer causality.

Although not statistically significant (possibly because of the limited sample size), the rates of co-sleeping and of active soothing were higher in the full CSA group (where both parents experienced CSA) than they were in the mixed group (where one parent was raised under CSA). A possible explanation for this difference might be that mothers and fathers who were both raised under CSA may share the same desires about co-sleeping or concerns about separating from their infants (synergetic effect) whereas parents in the mixed group may hold more divergent attitudes (e.g., the CSA parent wants to co-sleep, but the other parent rejects the idea).

Differences in Sleep Patterns Between the Groups and Their Relations to Parental Cognitions

The comparison between the groups on infant sleep measures revealed that infants of parents who were both raised under CSA had more fragmented sleep and demonstrated more night wakings, as reported by the parents, than did infants of control parents. These differences are not very strong and were significant only when both parents shared the CSA experience.

Because sleep was not monitored objectively, we have no way to ascertain whether this difference in reported night waking was due to the fact that CSA parents were more aware of their infants' night wakings because a higher percent of infants in the CSA group slept in the parents' room or bed. Alternatively, it could be that control infants did not wake up less often but developed successful strategies for self-soothing and therefore signaled less to their parents (Sadeh et al., 2007). However, there is a possibility that the infants of CSA parents indeed had more night wakings and that these night wakings are related to parental cognitions and parental handling at night. Previous studies, using similar measures, have demonstrated that parental cognitions reflecting difficulties about limiting parental involvement at night are related to infant sleep problems (Morrell, 1999; Sadeh et al., 2007) and that the link between parental cognitions and infant sleep is mediated by the soothing methods of the parents (Tikotzky & Sadeh, 2009). Examination of the correlations between infant sleep and parental cognitions in the general sample in this study revealed that infant night wakings were related to parental soothing and cognitions. Specifically, parental cognitions were found to be associated with soothing patterns at bedtime and with sleep location. Parents who (cognitively) emphasized more the infant's distress at night and less the importance of limiting parental involvement were more involved in soothing their infants at bedtime and were more inclined to co-sleep. Moreover, maternal cognitions emphasizing the infant's distress and need for help at night were moderately correlated with more reported night wakings, and increased reported difficulty in

limit setting was moderately associated with more night wakings as well. Although the design of the study precludes inferring causality, these findings support the hypothesis that the differences in reported night wakings between the full CSA and control groups in the present study are explained at least partially by their different cognitive tendencies and soothing patterns.

In summary, the findings of this study supported the two main hypotheses. (a) Parents who were raised under CSA were found to have more concerns regarding infant sleep. Specifically, they were more attuned to the possibility that infants experience distress upon awakening at night and that one should therefore soothe night-waking infants and help them to resume sleep. These findings are understood in light of these parents' early experiences of communal upbringing. (b) Parents who experienced CSA were more involved in active soothing and were more inclined to co-sleep with their infants. Moreover, infants of parents who were both raised under CSA had more night wakings than did control infants. These differences are attributed mainly to parental cognitions and soothing behaviors that were found to be related to infant night wakings (Tikotzky & Sadeh, 2009).

CONCLUSIONS

Fraiberg et al (1975) described how the "Ghosts in the Nursery" may interfere with mothers' ability to take care of their own infants. However, they also described how some parents who had experienced early neglect or abuse are responsive to the child's need and are motivated to provide their children better caregiving than they had experienced in their past. Lieberman, Padrón, Van Horn, and Harris (2005) suggested that these parents have access to memories of nurturing and caring experiences ("Angels") which make this change possible. Our findings demonstrate that CSA parents did not reenact their early troubled nighttime experiences with their infants. Their past seemed to express itself in their present by showing an increased sensitivity to infants' feelings, needs, and possible distress during the night and by presenting a greater involvement in night soothing and co-sleeping. In other words, these parents who experienced "regulating" parenthood (with emphasis on limit-setting) with regard to sleep moved into the direction of being more facilitators (tuned and led by their child's perceived needs) (Raphael-Leff, 1983, 1986). Relying on the importance of "Angel" moments to implement change (Lieberman et al., 2005), the tendency of CSA parents to compensate or repair, as opposed to reenact or duplicate the past (Bretherton et al., 2006; Sharabany et al., 2006), may have become possible because CSA parents experienced deprivation of parental availability "only" during the nights, but not during the days. As children, these parents were not exposed to overwhelming trauma. They grew up in a supportive kibbutz environment, and their parents were available and responsive during the afternoon hours (Sagi et al., 1997). Notwithstanding the importance of the parents' willingness and ability to repair, note that their tendency to be "facilitators" may have interfered to some degree with the acquisition of infant self-soothing capacities necessary for consolidated sleep (Morell, 1999; Tikotzky & Sadeh, 2009).

Although our study focused on a unique group of parents (Aviezer et al., 1994), we believe that the findings have important implications beyond the CSA population. Having the opportunity to use this natural laboratory or experiment of nature (i.e., having been raised under CSA) allowed us to test empirically broader questions regarding the influence of ecological changes and the importance of parental early experiences in shaping their current parenting beliefs and practices. Therefore, we believe that the importance of our study lies mainly in: (a) demonstrating

how a change in the ecology of family that came about by social and political processes has implications for parental cognition and behavior toward the child and for the sleep of their children (Bronfenbrenner, 2005); (b) providing an empirical support to the theory that parents' early childhood experiences play an important role in guiding their future parenting attitudes, beliefs, concerns, and behaviors (Fraiberg et al., 1975); (c) supporting the compensation model (Bretherton et al., 2006; Sharabany et al., 2006), suggesting that parents who are highly involved with caregiving may be compensating for the little involvement they received from their caregivers; (d) demonstrating how the links between the parents' past and their present parenting may manifest in infant sleep; and (e) supporting the growing, but still limited, literature about the role of parental cognitions in the development of infant sleep (Morell, 1999; Morell & Steele, 2003; Sadeh et al., 2007; Tikotzky & Sadeh, 2009).

Clinical Implications

Even though this study did not focus on a sample of sleep-disturbed infants, its findings may have important clinical implications. Specifically, we believe that the findings underscore the importance of clinically addressing early experiences and sleep-related perceptions of parents who, similarly to parents who were raised under CSA, experienced deprivation of parental availability or other formative experiences, especially during the night. One interesting finding of the present study demonstrated that CSA parents were more likely to co-sleep with their infants than were control parents. Studies about motives parents have for co-sleeping have revealed that whereas some parents choose co-sleeping voluntarily and intentionally as their preferred arrangement, other parents may feel ambivalent about this arrangement and choose it mainly as a reaction to existing sleep problems (Keller & Goldberg, 2004; Ramos, Youngclarke, & Anderson, 2007). We believe that in a clinical setting when parents present ambivalent feelings about co-sleeping, it is especially important to ask about past sleeping experiences that may have led to a choice that is in conflict with their present personal or familial needs. The following clinical case demonstrates the importance of inquiring about parental early experiences to understand the sleep-related behavior of parents and the development of a sleep problem.

In one of the clinical cases that we encountered, a mother described her ambivalent feeling about the sleeping arrangement of her 12-month-old baby. The mother found it very difficult to let her daughter sleep by herself, but felt depressed and exhausted because of her infant's frequent night wakings. The infant was waking up every hour during the night, and her mother soothed her back to sleep by breastfeeding. Sometimes, the infant would not leave the breast for the entire night. The father opposed this co-sleeping arrangement and insisted on a behavioral intervention, which the mother resisted. When asking the mother about her own childhood memories regarding sleep, she uncovered a history of prolonged emotional neglect, isolation, and alienation from her own mother, who rarely even talked to her. However, she could relate to some positive memories of warmth and closeness when on some occasions her mother joined her bed at napping time. These were her "Angel" moments (Lieberman et al., 2005). When describing her relations with her own daughter, the mother told that the only way she felt she could comfort her infant was by lying near her and providing physical closeness. She felt that words were of no use and would not reach her daughter. By exploring with this mother the relations between her past experiences and her present beliefs and soothing behaviors, the mother, with the support of her spouse, could gradually regulate and balance the distance from her daughter during the night, which led to an improvement in the sleep of the infant.

Most interventions aimed at treating infant night-waking problems rely on modification and limitation of parental soothing patterns and behaviors at night (Kuhn & Elliott, 2003; Mindell et al., 2006; Sadeh, 2005). Studies assessing behavioral interventions for infant sleep difficulties have consistently demonstrated the efficacy of these interventions in improving sleep, and many parents have found the short and focused behavioral consultation very helpful. However, most intervention studies do not report on dropout and parental resistance to these interventions. Our clinical experience has suggested that parental resistance to behavioral modification could result from negative emotional reactions of the parents to interventions that are associated with infant protest and crying, and could even be perceived as neglectful or traumatic to the child (Daws, 1989; Sadeh, 2005). The findings of the present study demonstrate that parents who as children were deprived of parental caregiving and availability at night may be especially sensitive to these issues. Therefore, we believe that clinicians should explore and address the underlying perceptions, beliefs, emotions, and early memories driving parental behaviors and appropriately address these issues in clinical interventions for sleep-disturbed infants. This is especially important when parents show initial resistance to behavioral interventions (Tikotzky & Sadeh, 2009).

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