This study compared the degree to which young children were placated during a standard medical evaluation by the presence of their mother, blanket, mother plus blanket, or no supportive agent. Participating were 64 three-year-olds who underwent 4 routine medical procedures. Children were rated by their mothers as attached or nonattached to blankets. These two groups of attached and nonattached children were randomly assigned to one of four experimental conditions, mother, blanket, mother plus blanket, or no supportive agent. The dependent measures were: (1) discomfort as rated on the Observational Scale of Behavioral Distress; (2) overall behavioral distress rating; (3) heart rate; and (4) blood pressure. A multivariate analysis of variance on the behavioral and the physiological measures indicated that mothers and blankets (for children attached to them) equally mitigated distress compared to nonattached blankets and no agents. Presenting two attachment agents (mother plus blanket) detracted from the singular effects of mothers or blankets. For soothing pediatric patients during moderately upsetting medical procedures, security blankets are appropriate parental substitutes. (Author/KB)
Security Blanket or Mother: Which Benefits Linus During Pediatric Examinations?

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Abstract

Because of parental interference, some pediatricians prefer examining children without parents nearby. Can blankets placate sufficiently during standard third-year medical evaluations? Accompanied by their mother, blanket, mother plus blanket, or no supportive agent, 64 three-year olds underwent four routine medical procedures. MANOVA on two behavioral and two physiological measures showed mothers and blankets (for children attached to them) equally mitigating distress compared to nonattached blankets and no agents. Presenting two attachment agents (mother plus blanket) detracted from singular effects of mothers or blankets. For soothing pediatric patients during moderately upsetting medical procedures, security blankets are appropriate parental substitutes.
Although generally not as upsetting as invasive medical procedures involving inoculations or surgery, routine third-year pediatric examinations can be challenging for both pediatricians and young patients when the children are distressed and uncooperative. To circumvent possible difficulties, pediatricians ordinarily request that parents accompany children into examination rooms. Parents, however, occasionally become disruptive influences themselves by expressing anxiety, acting overprotectively, or preparing their children overzealously (Adams & Passman, 1981; Lumley, Melamed, & Abeles, 1993). According to O’Laughlin and Ridley-Johnson (1995), compared to such high maternal involvement, passive maternal onlooking is associated with decreased distress during immunizations. Would noninterfering inanimate sources of comfort have effects similar to parents during potentially agitating medical evaluations?

By the third year, 60% of children develop attachments to soft, nonsocial objects (Passman, 1987). One example is Charles Schultz’s blanket-clutching Linus. When such attachments exist, their presence can forestall distress and facilitate positive interactions with unfamiliar people. Under moderately arousing circumstances, security blankets’ adaptive functions are comparable to mothers’, although blankets’ effects are more susceptible to highly stressful conditions (Passman, 1987). If blankets and mothers individually are comforting, presenting both agents together should be even more salubrious. No research, however, has yet examined combinative effects of two different attachment agents.

Standard third-year pediatric examinations involve assessing weight, height, blood pressure, and heart rate. All are noninvasive procedures where discomfort should be lower than during the venipunctures or surgeries usually examined by other researchers (e.g., Lumley et al., 1993; O’Laughlin & Ridley-Johnson, 1995). The purpose of the present study was to determine whether inanimate (and thus noninterfering) security blankets could reduce distress as effectively as noninteractive mothers.

Based on maternal ratings on a 10-point scale (Passman, 1987), 64 children (M age = 37.0 months) were categorized as attached (M rating = 6.53) or nonattached (M rating = 1.47) to blankets. These two groups of attached and nonattached children were randomly assigned to one of four experimental conditions: mother, blanket, mother plus blanket, or no supportive agent present during the pediatric examination. Thus, there were eight groups, each containing eight children. Two independent observers used the Observational Scale of Behavioral Distress (OSBD; Jay & Elliott, 1984) to index discomfort (reliability = .933). An observer and the attending nurse also rated overall behavioral distress on
10-point scales (reliability = .959). Heart rate and blood pressure, assessed as part of the medical examination, were two physiological indicants of distress.

A 4 (Agent present) X 2 (Blanket attachment level) MANOVA on the two behavioral and two physiological measures yielded a significant interaction, \( F(12,155) = 2.34, p < .01 \), and main effect for Agent, \( F(12,155) = 5.01, p < .001 \). Significant univariate analyses and post hoc comparisons demonstrated that children with their mother displayed less distress than with no agent present. Because of the similarity of data across all measures, Figures 1 and 2, which depict the children's mean heart rate and overall distress as a function of blanket-attachment level and agent present, are used to exemplify the results' patterns. For children accompanied by a blanket, attachment to it was a significant factor: On all measures, blanket-attached children evidenced less distress than did nonattached children (ps < .05). Moreover, for attached children, the blanket was more soothing than having no agent. Blanket-attached children with their blanket did not react differently from children with their mother (ps > .10), except for blood-pressure readings. In contrast, blanket-nonattached children with their blanket reacted more poorly than did children with their mother on every measure (ps < .05). They never differed from children with no agent, except for having marginally lower blood pressure (p < .10).

Coupling the mother and blanket provided no additional enhancement beyond their unitary effects; contrariwise, the combination was sometimes deleterious. Whereas the mother or blanket individually mitigated distress relative to no object, blanket-attached children with their mother plus blanket had lower heart rates (p < .05) but did not differ from children with no agent on the other three measures (ps > .10). The mother plus blanket combination also resulted in elevated blood-pressure readings (p < .01) and marginally higher OSBD scores (p < .10) for attached children compared to the mother's presence alone. In all respects, however, blanket-nonattached children with their mother plus blanket adjusted no differently from those with their mother (ps > .10).

During their pediatric examination, children benefited from having access to an agent to which they were attached. Although the security blanket is known to be comforting in novel environments (as measured behaviorally, but never before physiologically; Passman, 1987), such findings have not been previously applied to medical situations. Research has demonstrated calming effects of nonintervening mothers (Lumley et al., 1993; O’Laughlin & Ridley-Johnson, 1995); however, this study is the first to show that the inanimate blanket, being less interfering than a noninteractive mother could possibly be, can function equivalently.

The strategy of allowing blanket-attached children two different attachment agents generally backfired: The combination heightened distress relative to giving
only the mother. Thus, the blanket detracted from the efficacy of the mother (or vice versa). Conversely, blanket-nonattached children accompanied by both their mother and blanket reacted like those with only their mother. To them, the blanket constituted no additional attachment agent, and it neither enhanced nor diminished the soothing effects of the mother. Like the negative effects of mothers’ overpreparations for upcoming separations (Adams & Passman, 1981) or too active ministrations during medical procedures (O’Laughlin & Ridley-Johnson, 1995), availability of two distinct attachment agents may have signaled impending danger or discomfort. Such associations may have been learned through parents’ previous tactics in which they overprepared before aversive incidents (e.g., giving a blanket while they remained nearby). More is not always better.

When parents are anxious and unwilling to remain noninteractive during medical examinations, security blankets appear to be appropriate substitutes. Nonetheless, effects of supplying blankets during invasive medical (or dental) interventions have not yet been investigated. Blankets may not be panaceas because they lose potency under high arousal (Passman, 1987). Extending the present study has limits that must still be examined.
References


Figure 1

Heart Rate (bpm)

Mother
Mother plus Blanket
Blanket
No Agent

Attached
Nonattached

Blanket Attachment Level

Figure 2

Overall Distress

Mother
Mother plus Blanket
Blanket
No Agent

Attached
Nonattached

Blanket Attachment Level
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