

ABSTRAK

Pengaruh Hidroterapi dan Stimulasi Taktil Kinestetik terhadap Penambahan Berat Badan Bayi dan Kestabilan Tanda Vital Prematur di RSUD Haji Medan Tahun 2026

Latar Belakang: Bayi prematur menghadapi berbagai risiko klinis akibat belum sempurnanya fungsi organ, termasuk ketidakstabilan tanda vital dan rendahnya berat badan lahir. Stimulasi taktil kinestetik (STK) telah terbukti efektif dalam mendukung pertumbuhan bayi prematur, namun penggabungannya dengan hidroterapi sebagai modalitas komplementer masih memerlukan bukti empiris yang lebih kuat, khususnya dalam konteks klinis Indonesia. **Tujuan:** Menganalisis pengaruh kombinasi hidroterapi dan stimulasi taktil kinestetik terhadap penambahan berat badan serta kestabilan tanda vital (suhu tubuh, frekuensi jantung, dan frekuensi pernapasan) pada bayi prematur di RSUD Haji Medan. **Metode:** Penelitian ini menggunakan desain *Quasi-Experimental* dengan rancangan *Pretest-Posttest Control Group Design*. Sampel berjumlah 30 bayi prematur yang dipilih menggunakan teknik *consecutive sampling* dan dibagi menjadi kelompok intervensi ($n=15$) yang mendapatkan kombinasi hidroterapi (10–15 menit) dan stimulasi taktil kinestetik (15 menit), serta kelompok kontrol ($n=15$) yang mendapatkan asuhan standar. Kriteria inklusi meliputi bayi prematur dengan usia gestasi < 37 minggu, berat badan lahir 1.500–2.500 gram, kondisi klinis stabil, dan toleransi minum yang baik. Analisis data menggunakan uji normalitas Shapiro-Wilk, *Paired Samples T-Test*, dan *Independent Samples T-Test* dengan tingkat kemaknaan $\alpha = 0,05$. **Hasil:** Uji normalitas Shapiro-Wilk menunjukkan seluruh data berdistribusi normal ($p > 0,05$). Hasil *Paired Samples T-Test* menunjukkan perbedaan yang signifikan antara nilai pre-test dan post-test pada kelompok intervensi untuk seluruh variabel ($p = 0,000$). Hasil *Independent Samples T-Test* menunjukkan perbedaan selisih perubahan yang signifikan antara kelompok intervensi dan kontrol pada berat badan ($\Delta = 112,00$ gram; $p = 0,000$), suhu tubuh ($\Delta = 0,23^{\circ}\text{C}$; $p = 0,000$), frekuensi jantung ($\Delta = 4,40$ x/mnt; $p = 0,007$), dan frekuensi pernapasan ($\Delta = 2,73$ x/mnt; $p = 0,002$). **Kesimpulan:** Kombinasi hidroterapi dan stimulasi taktil kinestetik terbukti secara signifikan meningkatkan berat badan dan menstabilkan tanda vital bayi prematur dibandingkan asuhan standar. Intervensi ini direkomendasikan untuk diintegrasikan ke dalam protokol asuhan kebidanan neonatus risiko tinggi di fasilitas pelayanan kesehatan.

Kata Kunci: Bayi Prematur, Hidroterapi, Stimulasi Taktil Kinestetik, Berat Badan, Tanda Vital, NICU

ABSTRACT

The Effect of Hydrotherapy and Tactile Kinesthetic Stimulation on Weight Gain and Vital Sign Stability in Premature Infants at RSUD Royal Prima Medan in 2026

Background: Premature infants face multiple clinical risks due to immature organ function, including vital sign instability and low birth weight. Tactile kinesthetic stimulation (TKS) has been shown to be effective in supporting the growth of premature infants; however, its combination with hydrotherapy as a complementary modality still requires stronger empirical evidence, particularly within the Indonesian clinical context. **Objective:** To analyze the effect of combined hydrotherapy and tactile kinesthetic stimulation on weight gain and vital sign

stability (body temperature, heart rate, and respiratory rate) in premature infants at RSU Haji Medan. **Methods:** This study employed a Quasi-Experimental design with a Pretest-Posttest Control Group Design. A total of 30 premature infants were selected using consecutive sampling and divided into an intervention group ($n=15$) receiving combined hydrotherapy (10–15 minutes) and tactile kinesthetic stimulation (15 minutes), and a control group ($n=15$) receiving standard care. Inclusion criteria included premature infants with gestational age < 37 weeks, birth weight of 1,500–2,500 grams, stable clinical condition, and adequate enteral feeding tolerance. Data were analyzed using the Shapiro-Wilk normality test, Paired Samples T-Test, and Independent Samples T-Test at a significance level of $\alpha = 0.05$. **Results:** The Shapiro-Wilk normality test confirmed that all data were normally distributed ($p > 0.05$). The Paired Samples T-Test revealed significant differences between pre-test and post-test values in the intervention group across all variables ($p = 0.000$). The Independent Samples T-Test demonstrated significant differences in mean change between the intervention and control groups for body weight ($\Delta = 112.00$ grams; $p = 0.000$), body temperature ($\Delta = 0.23^{\circ}\text{C}$; $p = 0.000$), heart rate ($\Delta = 4.40$ beats/min; $p = 0.007$), and respiratory rate ($\Delta = 2.73$ breaths/min; $p = 0.002$). **Conclusion:** The combination of hydrotherapy and tactile kinesthetic stimulation significantly improved weight gain and stabilized vital signs in premature infants compared to standard care alone. This intervention is recommended for integration into neonatal care protocols for high-risk infants in healthcare facilities.

Keywords: Premature Infant, Hydrotherapy, Tactile Kinesthetic Stimulation, Body Weight, Vital Signs, NICU