

ABSTRAK

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INOVASI PEMBUATAN TAS ASI *TRANSPORTABLE* DUAL FUNGSI “UMASI” (DINGIN-HANGAT) BAGIAN FUNGSI DINGIN

Latar Belakang: ASI merupakan sumber nutrisi terbaik bagi bayi, namun penyimpanan ASI perah sering terkendala daya tahan suhu ruang yang terbatas. Ibu menyusui, terutama yang bekerja, membutuhkan wadah praktis untuk menjaga kualitas ASI tetap optimal.

Tujuan Umum: Membuat tas ASI *Transportable* dual fungsi “UMASI” yang dapat menjaga suhu dingin ASI secara efektif.

Metode: Penelitian ini menggunakan metode *Research and Development* (R&D) dengan tahapan analisis kebutuhan melalui telaah literatur, perancangan produk, pemilihan bahan, pembuatan tas, serta uji coba fungsi dingin di laboratorium.

Hasil: Tas UMASI berhasil dirancang dengan kompartemen khusus pendingin, uji coba menunjukkan *Ice Gel* mampu menurunkan suhu ASI lebih cepat (dari 36,3°C menjadi 10,8°C dalam 5 jam), sementara *Ice Pack* lebih stabil mempertahankan suhu hingga 8 jam

Simpulan: Tas ASI *Transportable* Dual Fungsi UMASI khusus fungsi dingin efektif menjaga kualitas ASI perah pada suhu aman selama 6–8 jam.

Kata Kunci: ASI, tas ASI, pendingin, logo UMASI, inovasi keperawatan

ABSTRACT

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INNOVATION IN MANUFACTURING DUAL FUNCTION TRANSPORTABLE BREAST MILK BAG "UMASI" (COLD-WARM) COLD FUNCTION PARTS

Background: Breast milk is the best source of nutrition for babies, but the storage of expressed breast milk is often constrained by limited room temperature resistance. Breastfeeding mothers, especially those who work, need a practical container to maintain optimal breast milk quality.

General Purpose: To create a dual-function "UMASI" Transportable *breast milk bag* that can effectively maintain the cold temperature of breast milk.

Methods: This study uses *the Research and Development* (R&D) method with the stages of needs analysis through literature review, product design, material selection, bag making, and cold function trials in the laboratory.

Results: The UMASI bag was successfully designed with a special cooling compartment. The test showed *that Ice Gel* was able to lower the temperature of breast milk faster (from 36.3°C to 10.8°C in 5 hours), while *the more stable Ice Pack* maintained the temperature for up to 8 hours.

Conclusion: Dual Function Transportable Breast Milk Bag UMASI's special cold function effectively maintains the quality of breast milk at a safe temperature for 6–8 hours.

Keywords: *breast milk, breast milk bag, cooler, UMASI logo, nursing innovation*