

# Sterile Water Injections: Innovative approach for managing lower back pain among birthing women in a LMIC

## Abstract

Around 30% of women in labour experience lower back pain, a common challenge during childbirth. Sterile water injections (SWI) have proven effective in managing this pain, as shown in previous studies. However, the applicability of this approach in the context of Low/Middle Income Countries (LMIC) such as Ghana remains unexplored. Investigating the effectiveness of SWI for lower back pain in the Ghanaian context is crucial for determining its potential benefits for birthing women. A non-randomised trial was conducted to determine SWI effectiveness in comparison to standard care. The sample comprised of 73 birthing women with severe back pain (51 interventional and 22 control group). Birthing women in the intervention group received 4 intradermal injections of sterile water 0.1ml in the skin surrounding the lumbo-sacral region whereas the control group had no injection. Self-reported pre and post pain scores using a Visual Analogue Scale were obtained prior to and at specific time intervals after the injections. Secondary outcomes measured included maternal and neonatal birth outcomes. The pain reduction observed in the intervention group was statistically significant compared to the control group. More women in the SWI group reported an at least 50% reduction in pain. Women in SWI group indicated positive impacts on the overall labour experiences when their satisfaction of intervention were evaluated. The findings demonstrate that SWI is a simple and effective method in managing low-back pain during labour and has the potential to offer an inexpensive and accessible option in birth settings within LMICs.