



ABSTRACT

This study assessed the bacteriological quality of piped water and purified drinking water in Dasmariñas City and Bacoor City, Cavite. Forty-eight water samples (24 purified drinking water and 24 piped water) were collected at random from 12 different areas in Bacoor City and Dasmariñas City. The water samples were subjected to heterotrophic plate count (HPC) method. Afterwards, positive results from HPC were transferred to Salmonella-Shigella Agar (SSA) and Eosin Methylene Blue Agar (EMBA). The isolates from the SSA and EMBA were enriched to nutrient broth. In Dasmariñas City, 33.3% (4/12) were observed in purified drinking water, while no sample rendered positive in piped water. In Bacoor City, both of the samples showed positive results. In purified drinking water, 33.3% (4/12) were observed, while in piped water, 58.33% (7/12) were positive to HPC. No significant difference ($P>0.743$) was observed between piped water and purified drinking water in relation to HPC. However, there was a significant difference ($p=0.035$) between the samples obtained in Bacoor and Dasmariñas City in relation to HPC. The 4 isolates were confirmed as *S. Typhi* (one isolate) and *E. coli* (three isolates) using analytical profile index (API) 20 E identification kit. This study concluded that the purified drinking water and piped water samples collected in Dasmariñas and Bacoor Cities that showed positivity in HPC and presence of *S. Typhi* and *E. coli* are not safe for human consumption. Hence, a reassessment of water quality measures should be performed.