PURPOSE

To investigate the surface tension of commercially available contact lens solutions in Ghana.

STATEMENT OF PROBLEM

Many contact lens Multi-Purpose Solutions (MPS) and accessories are used in the fitting, wearing, and maintenance of contact lens. An in depth understanding of these solutions which include; Freshlook solution, Optifree solution, Gp fresh solution, Trufresh solution, Avizor solution, and Refresh solution commercially available in Ghana is required by eye care practitioners if they are to be used to their fullest advantage.

Problems from mild discomfort to severe ocular damage can occur if the solutions are not compatible with the lens, the eye, and other solutions, and this can lead to contact lens dropouts. Most studies have shown that surface tension may have the potential to influence patient comfort, either initially upon lens insertion or at the end of the day, through interactions between the solution, the lens, and the patient’s tear film (Tiffany, 1998; Pandit, Nagyova, Bron, & Tiffany, 1999).

Dalton et al (2008) conducted a study on the physical property of various contact lens solutions in Canada. The study reported on the effect of surface tension of various contact lens solutions (Dalton, Lakshman, Ronan, & Lyndon, 2008). However, little is known about surface tension of commercially available solutions in Africa. Therefore, this study is conducted to investigate the surface tension of the contact lens solutions listed above which are commercially available in Ghana.