

ABSTRACT

Cervical cancer is one of the deadliest diseases in the world, including in Indonesia. Therefore, effective treatment is needed through early cancer screening, which is ideally done at least once every six months. However, in Indonesia itself there is still a shortage in the availability of colposcope, which is a tool used for screening cervical cancer. Colposcopes available today tend to be large, uncomfortable to use, and expensive, thus hampering wider early detection efforts. The innovative and practical solution offered is the development of a handheld colposcope that uses additive manufacturing technology or 3D printing that uses resin material. The tools are Designed to be portable, affordable, and convenient to use. The use of 3D-printing technology allows the production of these tools at lower costs and a more ergonomic Design. This handheld colposcope has passed a Content Validitytest with a score of 0.87 showing that the results are relevant and promising to be widely applied. With a more affordable and convenient handheld colposcope, access to early detection of cervical cancer in Indonesia is expected to increase significantly. This will allow more women to undergo routine screening, so that the diagnosis and treatment of cervical cancer can be done earlier, increasing the chances of recovery and reducing the death rate from the disease.

Keywords: *additive manufacturing, cervical cancer, colposcope handheld, resin.*