

ABSTRAK

Nurmala Febriyanti Radjak. 2013 “Pengaruh Jarak *Septic tank* dan Kondisi Fisik Sumur terhadap Keberadaan Bakteri *Escherchia coli* pada Sumur Gali”. Skripsi, Jurusan Kesehatan Masyarakat, Fakultas Ilmu-Ilmu Kesehatan dan Keolahragaan, Universitas Negeri Gorontalo. Pembimbing I Dr. Hj. Herlina Jusuf. Dra., M.Kes dan Pembimbing II Ekawaty Prasetya S.Si, M.Kes.

Air sangat erat hubungannya dengan manusia karena menjadi sumber daya alam yang diperlukan untuk hajat hidup orang banyak bahkan menjadi satu sarana utama untuk dapat meningkatkan derajat kesehatan masyarakat. Sumur gali merupakan salah satu sumber penyediaan air bersih bagi masyarakat di pedesaan maupun perkotaan. Sumur gali berasal dari air tanah dangkal sehingga dengan mudah mengalami pencemaran.

Penelitian ini bertujuan untuk mengetahui pengaruh jarak *septic tank* dan kondisi fisik sumur terhadap keberadaan bakteri *Escherchia coli* pada sumur gali. Penelitian ini bersifat *Observasional* dan uji laboratorium dengan menggunakan desain *Cross Sectional study* terhadap 20 sumur yang di ambil sesuai dengan kriteria inklusi dan esklsi, selanjutnya di lakukan pengukuran terhadap jarak *septic tank* dan observasi terhadap kondisi fisik sumur kemudian pemeriksaan bakteriologis air yang di sajikan dalam bentuk tabel Univariat dan Multivariat.

Hasil penelitian menunjukkan bahwa total bakteri *E.coli* tertinggi memenuhi syarat yakni (95%) dan tidak memenuhi syarat (5%), untuk jarak *septic tank* terdistribusi tertinggi jarak kurang dari 10 m yakni (75%) dan lebih dari 10 m (25%), untuk kondisi fisik sumur tertinggi kategori baik (55%) dan buruk (45%). Hasil analisa statistik dengan menggunakan Regresi Linier Sederhana di ketahui bahwa aspek jarak *septic tank* ($r = 0,119$) memiliki pengaruh lemah atau tidak ada pengaruh dan kondisi fisik sumur ($r = 0,293$) memiliki pengaruh sedang terhadap keberadaan bakteri *Escherchia coli*.

Kata Kunci : *Septic tank*, Sumur Gali, Bakteri *Escherchia coli*

ABSTRACT

Nurmala Febriyanti Radjak. 2013 “The Effect of Septic Tank Distance and Physical Condition of Well toward Bacteria Existence *Escherchia Coli* in the Digging Well”. Skripsi, Department of Public Health, Faculty of Sports and Health Sciences, Universitas Negeri Gorontalo. The principal supervisor was Dr. Hj. Herlina Jusuf. Dra., M.Kes and the co-supervisor was Ekawaty Prasetya S.Si, M.Kes.

Water was considered to have close relationship with people in term of natural resources toward certain need of community defecation. Besides, it was able to increase community level regarding health concern. Digging well was regarded to be one of fresh water supply sources toward rural community. Digging well was from shallow ground water yet it was considered easy contaminated by pollution.

This research aimed to find out the effect of septic tank distance and physical condition of well toward bacteria existence *Escherchia coli* in the digging well. It was observational and laboratory test by applying design of cross sectional study in 20 wells which were based in the criteria of inclusion and exclusion. Further measuring activity was conducted toward septic tank distance and observation on physical condition of well and examination in water bacteriology displayed on table of univariate and bivariate.

The result of research showed that total of E. Coli bacteria considered to be qualified was (95%) and not qualified (5%), septic tank distance was categorized into less than 10m (75%) and more than 10m (25%), physical condition of well categorized into good (55%) and bad (45%). Result of statistical analysis using simple linier regression was know that aspects of *septic tank* distance ($r = 0.119$) had a weak effect or no effect and the physical conditon of the well ($r = 0.293$) had a moderate effect on the existence of *Escherchia coli* bakteria

Keywords : *Septic tank, Digging Well, Escherchia coli Bacteria*