Improving the Quality of Hospital Wastewater Management Through Supportive Supervision

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Abstract:

Background: Improper wastewater handling can put healthcare workers, patients, and the environment at risk. Although Indonesia has regulatory frameworks for hospital wastewater management, gaps remain in compliance, awareness, and enforcement, particularly in resource-constrained settings. To address these gaps, investment is needed not only in infrastructure and technology but also in supportive supervision (SS) to build sustainable compliance and awareness among staff and leadership.

Methods: This study was conducted at RSPAU dr. S. Hardjolukito, Yogyakarta, in 2025. The researcher and participants collaborated in planning, data collection, analysis, and identifying the best solutions. Participants received training on the SS method, including its tools and implementation procedures. The researcher conducted pre- and post-implementation evaluations and interviewed both managers and staff about their perceptions. We analyzed quantitative data using a paired t-test ($p < 0.05$).

Results: Quantitatively, the sample consisted of 11 participants, with males accounting for 72.7%. The dominant work unit is the environmental health unit (54.5%). The most common age range was 31–40 years (36.4%). Diploma and bachelor's degree holders were equally common, at 36.4% each. Most study participants had been employed for more than 10 years. Following the SS training, staff compliance, knowledge, engagement, and job satisfaction increased. Staff job burnout decreased. Staff engagement in wastewater management is significant (pretest vs. posttest I: 0.001; pretest vs. posttest 2: 0.008). Staff compliance with wastewater management is significant (pretest vs. posttest I: 0.003; pretest vs. posttest 2: 0.022). Following the SS training, staff compliance, knowledge, engagement, and job satisfaction increased. Staff job burnout decreased.

Conclusions and policy implications: Supportive supervision is a key strategy for improving the quality of wastewater management practices. Staff compliance and engagement changed significantly between pretest and posttests 1 and 2. Following the SS training, staff compliance, knowledge, engagement, and job satisfaction increased, while staff burnout decreased.

Keywords:
Hospital, management, supportive supervision, wastewater.