Study about using of polymeric materials for improving hand hygiene quality for healthcare staff

Eleonora Dinu [1], Angela Repanovici [2*] and Codruta Nemet [3]

[1] *Transilvania University of Brașov, Faculty of medicine, Eroilor, 29 eleonora-antoaneta.dinu@unitbv.ro*
[2] *Transilvania U,iversity of Brașov, Faculty of Produc design and environment, Eroilor, 29 arepanovici@unitbv.ro*
[3] *Transilvania Un,iversity of Brașov, Faculty of medicine, Eroilor, 29 nemet@unitbv.ro*

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Abstract.
Background and Objectives: The aim of the study was to evaluate the quality of hand hygiene for different categories of employees in the health system.
Method: An analysis of the observance of the correct hand washing steps was performed using the observation method at six hospitals in Brasov, Romania. The results were compared with those obtained by using the Semmelweis Scanner device, produced by the Hand in Scan company in Budapest; this is a digital control system, with which an immediate, objective feedback on the quality of the completion of the hand disinfection technique is obtained. The system requires UV light. The aspect regarding the presence of the polymeric materials like varnish and the nail polish on the nails of the medical staff was followed. The sample consisted of 553 volunteers.
Results: There were no statistically significant differences between the three categories healthcare staff when the compliance to the World Health Organization recommendations regarding nail hygiene was concerned (67.24% compliance in physicians compared to 66.10% in nurses and 67.60% in auxiliary staff, respectively).
Conclusion: Surprisingly, the presence of gel coated nails is a protection factor with statistically significant p value after objectivation with Semmelweis scanner.