1193. Assessing Sustainability of Hand Hygiene Adherence 5 Years after a Contest-Based Intervention in 3 Japanese Hospitals

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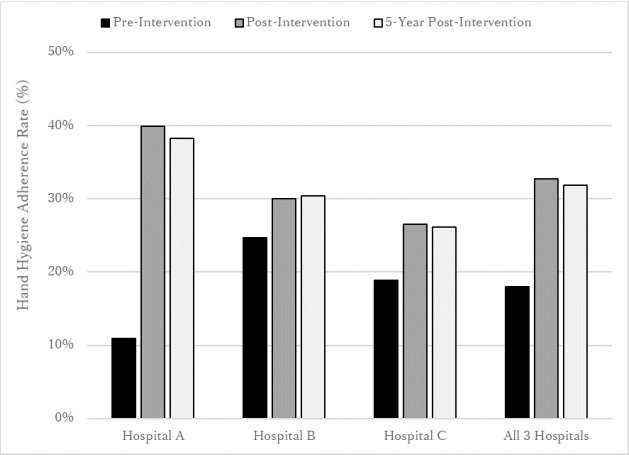
Background. To evaluate the 5-year sustainability of a multimodal intervention which included a prize to the hospital with the highest overall hand hygiene adherence rates among healthcare workers.

Methods. Design: An observational study using direct observation of hand hygiene adherence performed by a trained observer coupled with a survey of healthcare workers about their knowledge of hand hygiene practices. Setting: Three Japanese tertiary care hospitals. Study Population: Physicians and nurses working on an inpatient medical or surgical ward, an intensive care unit (ICU), or the emergency department. Outcome Measures: Hand hygiene adherence rates before patient contact using unobtrusive direct observation. Secondary outcomes were survey responses on a World Health Organization (WHO) questionnaire on hand hygiene.

Results. Data for the current study were collected between September and December 2017 at the 3 participating hospitals. An additional 2,485 observations were conducted during this 5-year post-intervention assessment. These observations were compared with 2,679 observations from the pre-intervention period, and 2,982 observations from the 6-month post-intervention period. Hand hygiene adherence rates had previously improved significantly after the introduction of a multimodal intervention – based on principles recommend by the WHO – in 2012 and 2013 in 3 Japanese hospitals (18.0% pre-intervention to 32.7% 6-months post-intervention; $P < 0.001$). No significant changes were found in hand hygiene adherence in these hospitals 5 years after the original intervention (31.9% 5-years post-intervention; $P = 0.53$); however, substantial variability in hand hygiene adherence by unit and healthcare worker type was noted.

Conclusion. A multimodal hand hygiene initiative achieved sustained improvement in hand hygiene adherence in 3 Japanese hospitals 5 years after the original intervention.



Disclosures. **All authors:** No reported disclosures.

1194. Gender Differences in Psychosocial Determinants of Hand Hygiene Among Doctors

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Background. Hand hygiene (HH) is essential in the prevention of hospital-acquired infections. It is known that there are differences in the compliance of HH between men and women but the reason for this phenomenon is unclear.

Methods. A survey on HH was conducted in July 2018 among healthcare workers at four different referral hospitals in South Korea. The differences between male and female doctors were then analyzed. The survey included a structured questionnaire with seven parts: (1) self-assessment of HH execution rate, knowledge, attitude, and behavior regarding HH, (2) internal motivation for better HH, (3) obstacles for HH, (4) emotional motivation, (5) the need for external supervision, (6) preference for alcohol gel, and (7) embarrassment due to supervision.

Results. Of the 1046 healthcare workers that replied to the survey, 201 (19.2%) were doctors, and of these, 129 (63.5%) were men. There was no significant difference between male and female doctors on the questionnaire related to knowledge, attitude, and behavior regarding HH. On the questions regarding internal motivation for better HH, male doctors had a higher tendency to agree that "I would be better at HH if it was related to getting a promotion," but the results were statistically insignificant (5.08 vs. 4.69, $P = 0.08$). For the 14 questions about the obstacles for HH, the following five categories showed significantly higher results in men: (1) HH is difficult in emergency situations (4.87 vs. 4.51, $P = 0.02$), (2) time that could be spent on something more important is wasted on HH (3.12 vs. 2.67, $P = 0.008$), (3) HH is not a habit (3.26 vs. 2.58, $P = 0.002$), (4) I often forget about HH situations (3.60 vs. 2.89, $P = 0.002$), and (5) I do not perform HH because there is no disadvantage when I do not perform it (3.06 vs. 2.42, $P = 0.008$). In the category "HH causes pain and dryness of hands," female doctors had a significantly higher tendency to agree (3.62 vs. 4.32, $P = 0.003$). Among the questions regarding emotional motivation, women had a higher tendency to agree that "Seeing a fellow employee perform bad HH angers me," but there was no statistical significance (3.73 vs. 4.10, $P = 0.07$).

Conclusion. There was a significant difference between male and female doctors regarding obstacles for HH. A campaign for HH based on these results could be helpful for increasing HH compliance.

Table 1. Male versus female doctors regarding obstacles for hand hygiene

Questions on obstacles for hand hygiene	Male	Female	*P* value
Hand hygiene causes pain and dryness of hands (Skin trouble)	**3.62±1.84**	**4.32±1.80**	**0.003**
It is hard to perform hand hygiene when a superior does not perform hand hygiene	3.41±1.83	3.11±1.63	0.16
Hand hygiene is difficult in emergency situations	**4.87±1.66**	**4.51±1.53**	**0.02**
I find it hard to tell a colleague to perform hand hygiene	3.73±1.60	3.54±1.61	0.25
Time that could be spent on something more important is wasted on hand hygiene	**3.12±1.60**	**2.67±1.32**	**0.04**
Hand hygiene is not needed if you wear gloves	2.79±1.62	2.67±1.56	0.32
There is no ethical problem with not performing hand hygiene	**2.42±1.58**	**2.15±1.50**	**0.09**
Hand hygiene is not a habit	**3.26±1.66**	**2.58±1.54**	**0.002**
I often forget about hand hygiene situations	**3.60±1.65**	**2.89±1.52**	**0.002**
I do not perform hand hygiene because there is no disadvantage when I do not perform it	**3.06±1.76**	**2.42±1.43**	**0.008**
I do not know exactly when to perform hand hygiene	2.43±1.54	2.13±1.26	0.12
I do not want to perform hand hygiene when I am being observed	3.08±1.84	2.78±1.62	0.18
Hand hygiene has no clear relation to patient safety	**2.22±1.57**	**1.86±1.24**	**0.07**
It is hard to perform hand hygiene because soap and hand towels are not prepared in every hospital room	3.12±1.65	3.06±1.57	0.43

Data was expressed mean±standard deviation, *P* value by Mann-Whitney U test

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