**Table S2. Results of scores of perception, attitude, self-reported performance, and role model (N=289)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Domain** | **Questions** | **Mean (± SD)** | Min | Max | Median  |
| **Perceptions†**(Range 11-77) |  |  | 69.3 (± 0.8) | 40.3 | 77.0 | 70.9 |
|  | B1 | In your opinion, what is the average percentage of hospitalized patients who will develop a health care-associated infection (between 0 and 100%)? | 33.2 (± 27.8) | 0.0 | 100.0 | 30.0 |
|  | B2\* | In general, what is the impact of a health care-associated infection on a patient's clinical outcome? | 3.0 (± 0.5) | 1.0 | 4.0 | 3.0 |
|  | B3\* | What is the effectiveness of hand hygiene in preventing health care-associated infection? | 3.7 (± 0.5) | 1.0 | 4.0 | 4.0 |
|  | B4\* | Among all patient safety issues, how important is hand hygiene at your institution? | 3.5 (± 0.6) | 2.0 | 4.0 | 4.0 |
|  | B5 | On average, in what percentage of situations requiring hand hygiene do health care workers in your hospital actually perform hand hygiene, either by hand rubbing or handwashing (between 0 and 100%)? | 86.0 (± 11.0) | 30.0 | 100.0 | 90.0 |
|  | B6\*\* | In your opinion, how effective would the following actions be to improve hand hygiene permanently in your institution? |  |  |  |  |
|  | B6.1 | Leaders and senior managers at your institution supporting and openly promoting hand hygiene | 6.3 (± 0.9) | 3.5 | 7.0 | 6.1 |
|  | B6.2 | The health care facility makes alcohol-based hand rub always available at each point of care | 6.6 (± 0.7) | 3.5 | 7.0 | 7.0 |
|  | B6.3 | Hand hygiene posters are displayed at point of care as reminders | 6.2 (± 1.0) | 2.6 | 7.0 | 6.1 |
|  | B6.4 | Each health care worker receives education on hand hygiene | 6.4 (± 0.9) | 1.8 | 7.0 | 7.0 |
|  | B6.5 | Clear and simple instructions for hand hygiene are made visible for every health care worker | 6.3 (± 0.9) | 2.6 | 7.0 | 7.0 |
|  | B6.6 | Health care workers regularly receive feedback on their hand hygiene performance | 6.3 (± 1.0) | 2.6 | 7.0 | 7.0 |
|  | B6.7 | Always performing hand hygiene as recommended (as a good example to colleagues). | 6.3 (± 0.9) | 2.6 | 7.0 | 7.0 |
|  | B7\*\* | What importance does the head of your department attach to the fact that you perform optimal hand hygiene? | 6.2 (± 1.0) | 0.9 | 7.0 | 6.1 |
|  | B8\*\* | What importance do your colleagues attach to the fact that you perform optimal hand hygiene? | 6.2 (± 1.0) | 0.9 | 7.0 | 6.1 |
|  | B9\*\* | What importance do patients attach to the fact that you perform optimal hand hygiene? | 6.2 (± 1.0) | 0.9 | 7.0 | 7.0 |
|  | B10\*\* | How do you consider the effort required by you to perform good hand hygiene when caring for patients? | 6.3 (± 0.9) | 3.5 | 7.0 | 6.1 |
| Performance self-report (Range 0-100) |  |  | 88.2 (± 11.0) | 36.0 | 100.0 | 90.0 |
|  | B11 | On average, in what percentage of situations requiring hand hygiene do you actually perform hand hygiene, either by hand rubbing or handwashing (between 0 and 100%)? |  |  |  |  |
|  | B11.1 | Before touching a patient. | 81.3 (± 17.6) | 10.0 | 100.0 | 80.0 |
|  | B11.2 | Before clean/aseptic procedures. | 91.4 (± 13.8) | 10.0 | 100.0 | 100.0 |
|  | B11.3 | After body fluid exposure/risk. | 96.2 (± 9.6) | 10.0 | 100.0 | 100.0 |
|  | B11.4 | After touching a patient’s surroundings. | 83.9 (± 16.4) | 20.0 | 100.0 | 90.0 |
|  | B11.5 | After touching a patient. | 88.0 (± 13.9) | 10.0 | 100.0 | 90.0 |
| Attitude\*\* (Range 8-56) |  |  | 50.5 (± 5.5) | 28.0 | 56.0 | 51.6 |
|  | C1 | Hand hygiene is essential. | 6.8 (± 0.6) | 3.5 | 7.0 | 7.0 |
|  | C2 | Hand hygiene is wise. | 6.7 (± 0.7) | 3.5 | 7.0 | 7.0 |
|  | C3 | Hand hygiene is beneficial. | 6.8 (± 0.5) | 3.5 | 7.0 | 7.0 |
|  | C4 | Hand hygiene is practical. | 6.5 (± 0.9) | 1.8 | 7.0 | 7.0 |
|  | C5 | Hand hygiene is safe. | 6.7 (± 0.7) | 0.9 | 7.0 | 7.0 |
|  | C6 | Hand hygiene is not annoying. | 6.0 (± 1.3) | 0.9 | 7.0 | 7.0 |
|  | C7 | Hand hygiene is convenient. | 5.9 (± 1.3) | 0.9 | 7.0 | 6.1 |
|  | C8 | Hand hygiene is protective. | 5.2 (± 1.9) | 0.9 | 7.0 | 5.3 |
| Role Model\*\*(Range 7-49) |  |  | 46.9 (± 3.3) | 28.0 | 55.0 | 48.0 |
|  | CR1 | I think that the charge nurse is performing hand hygiene according to the hospital’s regulations. | 6.6 (± 0.6) | 4.0 | 8.0 | 7.0 |
|  | CR2 | It is important for the charge nurse to perform hand hygiene according to the hospital's regulations. | 6.7 (± 0.6) | 2.0 | 8.0 | 7.0 |
|  | CR3 | I think that the head nurse is performing hand hygiene according to the hospital’s regulations. | 6.7 (± 0.5) | 4.0 | 8.0 | 7.0 |
|  | CR4 | It is important for the head nurse to perform hand hygiene according to the hospital's regulations. | 6.8 (± 0.5) | 2.0 | 8.0 | 7.0 |
|  | CR5 | It is important for physicians to perform hand hygiene according to the hospital's regulations. | 6.7 (± 0.7) | 2.0 | 8.0 | 7.0 |
|  | CR6 | I think that the colleague nurse is performing hand hygiene according to the hospital’s regulations. | 6.6 (± 0.6) | 4.0 | 8.0 | 7.0 |
|  | CR7 | It is important for the colleague nurse to perform hand hygiene according to the hospital's regulations. | 6.8 (± 0.5) | 4.0 | 8.0 | 7.0 |

† Questions of B2, B3, and B4 were excluded from the total score of perception because they lowered reliability (Cronbach’s alpha 0.729 with all questions; 0.932 after exclusion). Questions of B1 and B5 were excluded from the scores of perception because they were analyzed separately as performance.

\* 4-point Likert scale (1~4); \*\* 7 -point Likert scale (1~7).