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Perception of ‘Speaking Up For Hand Hygiene’ Initiative Among Nurses and Other Healthcare Professionals at Critical Care Areas of A Teaching Hospital

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Background

World Health Organization,
(2014), Karaaslan et al.
(2014)& Mahfouz, El Gamal, &
Al-Azraqi (2013)

- 50-70% of nosocomial infections are transmitted from the hands of healthcare workers
- Hand hygiene compliance among HCWs is between 40- 60%

The Joint Commission, (2018)

- Speak Up™ encourages patient participation in their treatment to prevent errors

Bell et al., (2017)

- Critically ill patients are unable to raise concerns & the nature of critical care areas – busy and fast pace

Schwappach, (2018)

- ‘Speaking up for hand hygiene’ is effective way to improve adherence to hand hygiene



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Background

Barriers of Speaking Up for Hand Hygiene

**Belela-Anacleto et al.,
(2019)**

Perceived social
pressure

Ay et al. (2019)

>Increased
workload and time
constraints

>Nurses cannot
accept such a
simple feedback

**Schwappach,
Sendlhofer, Kamolz,
Köle, & Brunner
(2019)**

Culture and
environment not
encouraging



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Study objectives

01

To identify the perception of ‘Speaking up for hand hygiene’ among nurses and other health care workers in the critical care units of Sultan Ahmad Shah Medical Centre SASMEC @IIUM

02

To determine the reasons that the nurses and other health care workers’ may be reluctant to ‘Speaking up for hand hygiene’.

03

To examine the association between demographic characteristics of the nurses and other health care workers’ and the perception of ‘Speaking up for hand hygiene’.

04

To identify the suggestions to improve hand hygiene practice among nurses and other health care workers in the critical care units.



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Significance of study

Beneficial to the Infection Control Unit of SASMEC@ IIUM to strengthen planning for infection control

Identify any potential for improvement in hand hygiene practices to minimise HAIs

Uncover the reasons for not/reluctant to speaking up

Suggestion for improvement of hand hygiene

Methods

Type & design

- Quantitative, cross-sectional study

Settings

- Critical care areas (ICU, CCU & ED, SASMEC @ IIUM)

Sampling

- Convenience

Inclusion & exclusion criteria

- Nurses & other HCPs who currently working in ICU, CCU & ED during data collection period.
- Nurses & other HCPs who are on maternity leave or other leave during the data collection period

Participants (Roasoft software: recommended sample size: 109)

- 39 nurses & 26 other health care providers (n=65)

Questionnaire

- Adapted from Kim et al. (2015), Wu et al. (2013) and Richard et al. (2017) & Noor Azizah, (2020)
- Administered via an online questionnaire and self-administered questionnaire

Approval

- Kulliyyah of Nursing Postgraduates Research Committee (KNPGRC)
- IIUM Research Committee (IREC)
- Clinical Research Centre (CRC), SASMEC @ IIUM

Data collection: Nov 2020

Data analysis

- Statistical Package for Social Science (SPSS) version 23.0.
- Descriptive : Frequency & percentage
- Nonparametric: Kruskal Wallis test & Mann-Whitney test





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Results

Characteristics	Frequency (n)	Percentage (%)
Gender		
Male	13	20
Female	52	80
Age, years		
<30	51	78.5
30-39	12	18.5
>40	2	3.1
Profession		
Nurse	39	60.0
Doctor	7	10.8
Assistant medical officer	1	1.5
Radiographers	15	23.1
Dietician	3	4.6
Current working unit		
Intensive Care Unit	30	46.2
Coronary Care Unit	10	15.4
Emergency Department	19	29.2
All critical care units	6	9.2
Length of working experience		
<2 years	38	58.5
2-<5 years	17	26.2
5-<10 years	5	7.7
10-<20 years	5	7.7

Results cont..

<p>Previous experience of being asked to perform hand hygiene by nurses/other healthcare professionals.</p> <p>Yes</p> <p>No</p>		<p>59</p> <p>6</p>	<p>90.8</p> <p>9.2</p>
<p>Previous experience of asking nurses/other healthcare professionals to perform hand hygiene.</p> <p>Yes</p> <p>No</p>		<p>47</p> <p>18</p>	<p>72.3</p> <p>27.7</p>



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Results

Overall nurses' and other HCPs perception of 'Speaking up for hand hygiene' (N= 65)
(n= 39),(n= 26)

Variable	Median (IQR)	
	Nurses	Other HCPs
Total score perception of speaking up for hand hygiene	38.51 (5.99)	36.88 (4.50)

	Statement	Strongly disagree [n (%)]	Disagree [n (%)]	Neither agree nor disagree [n (%)]	Agree [n (%)]	Strongly agree [n (%)]
1.	I usually observe if other healthcare professionals perform hand hygiene enough.	1 (2.6)	0 (0)	1 (2.6)	29 (74.4)	8 (20.5)
2.	I should be aware that whether or not other healthcare professionals wash their hands enough.	1 (2.6)	0 (0)	0 (0)	26 (66.7)	12 (30.8)
3.	I would remind other healthcare professionals to perform hand hygiene if necessary.	1 (2.6)	0 (0)	1 (2.6)	21 (53.8)	16 (41.0)
4.	I am willing to be reminded by other healthcare professionals to perform hand hygiene if I did not.	1 (2.6)	0 (0)	0 (0)	20 (51.3)	18 (46.2)
5.	I think by speaking up for hand hygiene is effective in enhancing other healthcare workers' good hand hygiene practice.	1 (2.6)	0 (0)	0 (0)	18 (46.2)	20 (51.3)
6.	I am sure that other healthcare professionals in our hospital fully comply with hand hygiene.	1 (2.6)	0 (0)	5 (12.8)	18 (46.2)	15 (38.5)
7.	If other healthcare professionals do not perform hand hygiene, I would like if other nurses could remind them.	1 (2.6)	0 (0)	1 (2.6)	20 (51.3)	17 (43.6)
8.	If I knew other healthcare professionals would appreciate a reminder to wash his or her hands, I would be more likely to remind him or her to do so.	1 (2.6%)	0 (0)	3 (7.7)	22 (56.4)	13 (33.3)
9.	I would prevent an incident from occurring by bringing up specific concerns about patient safety.	1 (2.6)	0 (0)	0 (0)	21 (53.8)	17 (43.6)

	Statement	Strongly disagree [n (%)]	Disagree [n (%)]	Neither agree nor disagree [n (%)]	Agree [n (%)]	Strongly agree [n (%)]
1.	I usually observe if nurses perform hand hygiene enough.	1 (3.8)	0 (0)	9 (34.6)	13 (50.0)	3 (11.5)
2.	I should be aware that whether or not nurses wash their hands enough.	1 (3.8)	0 (0)	2 (7.7)	15 (57.7)	8 (30.8)
3.	I would remind nurses to perform hand hygiene if necessary.	0 (0)	2 (7.7)	10 (38.5)	9 (34.6)	5 (19.2)
4.	I am willing to be reminded by nurses to perform hand hygiene if I did not.	0 (0)	1 (3.8)	2 (7.7)	11 (42.3)	12 (46.2)
5.	I think by speaking up for hand hygiene is effective in enhancing nurses' good hand hygiene practice.	0 (0)	0 (0)	3 (11.5)	12 (46.2)	11 (42.3)
6.	I am sure that nurses in our hospital fully comply with hand hygiene.	2 (7.7)	0 (0)	2 (7.7)	14 (53.8)	8 (30.8)
7.	If nurses do not perform hand hygiene, I would like if other healthcare professionals could remind them.	0 (0)	1 (3.8)	1 (3.8)	12 (46.2)	12 (46.2)
8.	If I knew nurses would appreciate a reminder to wash his or her hands, I would be more likely to remind him or her to do so.	0 (0)	2 (7.7)	2 (7.7)	10 (38.5)	12 (46.2)
9.	I would prevent an incident from occurring by bringing up specific concerns about patient safety.	0 (0)	0 (0)	1 (3.8)	18 (69.2)	7 (26.9)



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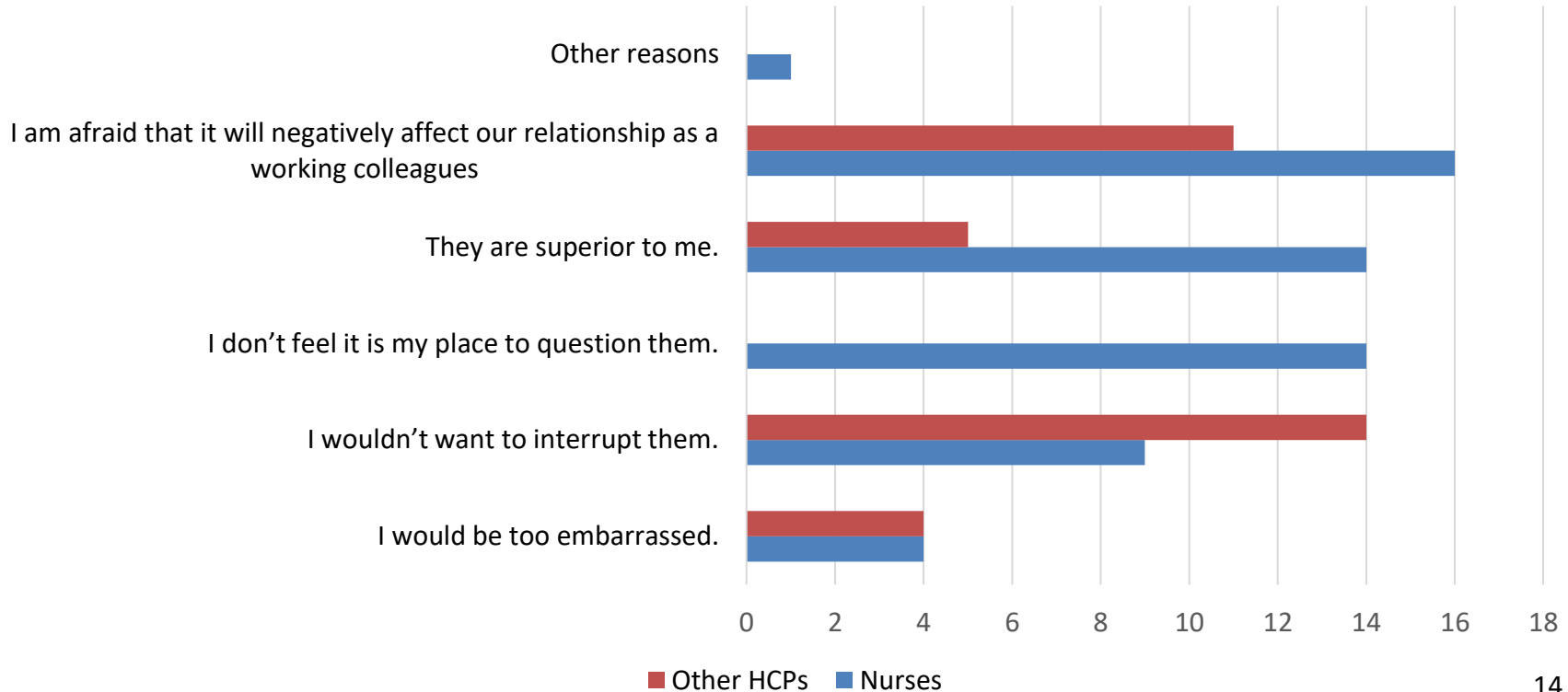
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Results

Reasons for Being Reluctant to 'Speaking Up for Hand Hygiene' initiatives (nurses: n=39, Other HCPs = 26)





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Results

The median of total score perception of ‘Speaking up for hand hygiene’ for nurses among age group <30 years old, 30-39 years old and >40 years old.

Total score perception of speaking up for hand hygiene	n	Median (IQR)	X ² Statistics ^a (df)	p-value
<30 years old	31	37.00 (5)		
30-39 years old	6	43.50 (3)	8.040	*0.018
>40 years old	2	41.50 (0)		

There was a significant difference between age group of nurses and perception of ‘Speaking up for hand hygiene’ initiative, p-value of 0.018



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Post-Hoc test

Post Hoc test for age group <30 years old VS Age group 30-39 years old

	Median (IQR)		Z statistic	p-value
	<30 years old	30-39 years old		
Total score perception of speaking up for hand hygiene	37.00 (5)	43.50 (3)	-2.625	0.009

Based on the paired sample of age group run by Mann Whitney Test along with Bonferroni corrections, it was found that group (<30 years old) and group (30-39 years old) were significant.

For p-value with correction= $0.009 \times 3 = 0.027$, $p < 0.05$ thus, reject H_0 .



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Results

Suggestions for Good Hand Hygiene Practice

Profession	Suggestions
Nurses	Reminder, education and infection control reinforcement.
Other HCPs	



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Discussion

- Overall positive nurses' and other HCPs perception of 'Speaking Up for Hand Hygiene' Initiative. In line with the study by Lambe et.al., 2020 –qualitative interviews (interview a total of 26 ICU staff: 12 ICU nurses, 11 anaesthetic specialist registrars, and three anaesthetic senior house officers). 56% out of 1217 HCPs reported they would speak up to a colleague with poor hand hygiene (Schwappach, 2018).
- Inconsistent with previous study done by Kim et al. (2013) revealed that only 31% of the nurses supported other parties including other HCPs' involvement in hand hygiene.
- This could be because of current outbreak of COVID-19. The nurses and other HCP are more alert on the hand hygiene compliance in preventing COVID-19 transmission (Zhang, 2020).



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Discussion

- The main reason for nurses being reluctant to speak up for hand hygiene was due to their afraid that speaking up will negatively affect their relationship as a working colleagues. This finding is in line with a study by Schwappach, 2018- clinical function (hierarchy) was strongly associated with the speaking up behaviour ($p < 0.001$).
- Kim et al.,(2015) who found that the barriers from speaking up for hand hygiene to the HCPs were because they were afraid that it will negatively affect their relationship. It means this reason persists. The factors that affect the nurses for speaking up was due to personal and organisational influences (Garon, 2012).
- The findings from this survey also revealed that the majority of the other HCPs did not want to interrupt nurses while they are doing their nursing care. Concurrent with the finding is, the nurses also did not want to disturb the other staff to perform hand hygiene (Noor Azizah, 2020). Thus, we can see that both professions did not want to disturb each other when they are working, which may compromise the patient safety. This could be due to their hierarchical influences in medical field that inhibit them from speaking up (Reid, 2019).

Suggestions

- This study found that nurses & other HCPs suggested: Reminders, education & infection control reinforcement.
- It is recommended that staff are provided with targeted HH training, in which individuals receive direct and individualised feedback on actual performance and are provided guidance on how to address deficiencies in HH compliance at the bedside at the time at which the HH behaviour is performed (Lambe, et al., 2020)



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Limitations

- Time constraint.
- COVID- 19 challenges.
- Small sample size- limits generalisation.



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Conclusions

- I. The majority of the nurses and other HCPs in SASMEC have a positive perception of ‘Speaking up for hand hygiene’ initiative.
- II. The findings also revealed that the reasons which led the nurses reluctant to speak up- because they afraid that speaking up will negatively affect their relationship as a working colleague. Meanwhile, the other HCPs did not want to interrupt the nurses while they are doing their nursing care.
- III. There was a significant difference between age group and perception of ‘Speaking up for hand hygiene’ initiative among the nurses in critical care units.
- IV. The suggestions to improve hand hygiene by the health care providers are using reminder, education and infection control reinforcement.



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Recommendations

- More research should periodically assess the hand hygiene compliance and ‘speaking up for hand hygiene’ initiative.
- Larger sample size with different respondents from different hospitals in Malaysia.
- Explore more on the measures to address the barriers of speaking up for hand hygiene in critical areas– qualitative or multimodal strategies



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Acknowledgments

- All participants
- Field supervisors at SASMEC @IIUM

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Thank You



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