CORRIGENDUM:
Air Change and Aerosol Evacuation Rates in a Two-Occupancy Room with Stand Fan for Forced Ventilation

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In the published article, there were some errors due to mistakenly multiplying instead of dividing the density with the mass flow rate in our excel sheet used to compute the values of air change rate - equation number 1 of the published article. Due to this, the following sections will change:

3.1 Air Change Rates

In the published article, there was an error in the values of **"Table 6. Air Changes Per Hour of the Four Configurations"** due to mistakenly multiplying instead of dividing the density with the mass flow rate in our excel sheet. The error has been corrected (shown in red font) in the figure and relevant paragraph as stated below.

Table 6: Air Changes Per Hour of the Four Configurations

	Air Changes Per Hour			
	FDE	FDI	FWE	FWI
Min	10.20	37.22	12.45	30.29
Max	11.11	40.97	13.78	35.52
Average	10.79	39.36	13.45	33.25

Shown in Table *6* are the values of air change rates for the four configurations. Note that because of flow oscillations, the ACH varies between minimum and maximum values. The fan intake configurations produced relatively higher rates, by about 2 to 4 times, compared to the fan exhaust configurations. The highest average value is 39.36 ACH for the fan door intake (FDI) configuration, followed by fan window intake (FWI) with 33.25 ACH, and the lowest average value is 10.79 ACH for the fan door exhaust (FDE), followed by fan window exhaust (FWE) with 13.45 ACH. This peculiar behavior can be explained by flow reversals at the boundary near the fan, when the fan is set to be an exhaust. This is illustrated for the FDE configuration in Figure 10. The low-pressure region at the back of the exhaust fan allows air to come in from the door. This decreases the weighted average of the mass flow rate at the door, thus decreasing the air change rate as well.

3.3. Relationship Between Air Change Rate and Particle Transport

In the published article, there was an error in section 3.3 as this cited **"Table 6. Air Changes Per Hour of the Four Configurations".** The error has been corrected (shown in red font) in the paragraph as stated below.

Even though the air change rate is a measure of how well the stale air inside the room is displaced by fresh clean air outside so higher magnitude is theoretically better, the current study shows that the configuration with the highest air change rate did not have the most desirable particle evacuation characteristics. The FDI configuration, with the highest average air change rate of 39.36, only has an evacuation percentage of 10.54% for case B. In stark contrast, Case A of the FDE configuration, with the lowest average air change rate of 10.79, has an evacuation percentage of 27.21%. The important implication of the current study is that: the air flow field inside the room is a decisive factor in determining the fate of the aerosols inside a room, in addition to the air change rate. This supports the fact that the use of localized or personalized ventilation systems in restaurants and hospitals, although has a very minimal effect on the room air change rate, is very effective in evacuating particles in the room, whether they be contaminants or odor.

IV. CONCLUSION

In the published article, there was an error in conclusion as this cited **"Table 6. Air Changes Per Hour of the Four Configurations".** The error has been corrected (shown in red font) in the paragraph as stated below.

A 3-D CFD study was performed to assess the effect of using a single stand fan for forced ventilation, in a single room with two occupants, to the air change rate and the particle transport. Results show that the intake configurations (33.25 and 39.36 ACH) produced higher values of air change rates compared to exhaust configurations (10.79 and 13.45 ACH). Additionally, case A of the fan-door-exhaust configuration resulted to the highest particle evacuation percentage (27.21% of generated particles) which is attributed to the resulting air flow field directing the aerosols from the infected occupant's mouth to the door exit. The current study shows that determining, and perhaps changing, the air flow field inside a room is an important factor besides increasing the air change rate, in terms of particle evacuation.

The mentioned corrections will not change the general results and conclusion. We apologize for this mistake, and we will do our best to avoid this in the future.

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