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Journal Name:	British Microbiology Research Journal
Manuscript Number:	Ms_BMRJ_19952
Title of the Manuscript:	MICROBIOLOGICAL EXAMINATION OF HOUSEHOLD KITCHEN SPONGES FROM THREE COMMUNITIES IN IKWUANO L. G. A, UMUAHIA, ABIA STATE NIGERIA.
Type of the Article	Original Research Article

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This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
	Review for BMRJ, manuscript # 19952 The authors have carried out an investigation into bacterial and fungal contamination of sponges used in the kitchen. This investigation was conducted in three communities that are part of the Ikwuano Local Government Area. The authors have done a thorough evaluation of reported literature on this topic and make useful observations and recommendations to prevent possible foodborne illness. My comments are listed under each section of the paper. <u>Abstract</u> Too many values are listed and this becomes confusing to the reader. Rather than listing all the ranges and means for each of the three sites evaluated, it would be better to simply list the means in the Abstract and provide the full data set (all the ranges) in the Results section. Note: <i>niger</i> should be italicized, line 4 <u>Introduction</u> The authors note that <i>Pseudomonas</i> spp. are responsible for foodborne	The mean values of the THPC and TCPC have been used. <i>"niger"</i> has been italicized accordingly. <i>Pseudomonas</i> spp. has been removed from the list of organisms that cause gastrointestinal illness. The correction has been effected. "Enterobacteriaceae" has been used. Line 45: "Kill" is used. Line 53: "As life style changes"...has been used.



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	illness. However, <i>Pseudomonas aeruginosa</i>, the organism in this study, is primarily associated with respiratory disease or infection of indwelling devices. The authors should not list this organism as a typical cause of gastrointestinal illness. Bacterial genera more commonly associated with gastrointestinal illness include <i>Campylobacter</i>, <i>Clostridium</i>, <i>Salmonella</i>, or <i>Listeria</i>. Overall the Introduction is well-written: the authors aptly state the problem and lay out the goals of their investigation. Note: perhaps “disseminate” instead of “diffuse”, line36 Enterobacteriaceae, line 43, is spelled “Enterobacteriaceae” Line 45, should be “kill” Line 53, perhaps “As life styles change” rather than “As life style changes” Line 60, a period after “A” <u>Material and Methods</u> In the subsection of Sample Collection: The authors note that sponges were in use for at least 2 weeks; however it is not known if a sponge had been used 2 weeks or even a month or more. Further, in the Discussion section, the authors address how sponges were stored (wet, dry, in sanitizer, etc.), sponge composition or the use of any chemicals to disinfect. If any of that information is available for the sponges collected, it should be noted in this section. In the subsection of Antibiotic Sensitivity Testing: The authors state that ‘the sensitivity pattern of the pathogenic isolates was determined...’ It does not seem realistic that all isolates were tested and perhaps only a select few underwent antibiotic sensitivity testing. In Table 7, where results are reported, it appears that the data reported is from a single isolate	Line 60, a period has been put after “A” The information has been inserted Spelling has been corrected. Comment has been addressed in the work Correct spelling : “MacConkey” has been used. Lines 88 and 89: the incubation period for bacteria and fungi have been corrected accordingly. “Antibiotic discs were placed” has been used in the sentence. “Millimeter” has been well spelt.
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from each of the species. In whatever manner this section of the manuscript was done, it needs to be clearly explained to the reader. If indeed, only a single isolate was tested, it would not be appropriate to imply that such results could be applied to more than a single isolate. Note: MaConkey is spelled MacConkey, lines 82 and 84 Sabourand is spelled Sabouraud, lines 82 and 85 Lines 88 and 89 imply that bacteria and fungi were incubated for 24 hours, just at different temperatures. It seems unlikely that <i>Aspergillus</i> would be able to grow that quickly. Line 109: “Antibiotic disc was placed...equidistance” should be “Antibiotic discs were placed” Millimeter, line 113 <u>Results and Discussion</u> The first comment is simply this: it is quite surprising that the bacterial organisms reported were the only ones isolated (<i>E. coli</i>, <i>P. aeruginosa</i>, <i>S. aureus</i>). Since sponges would certainly be in contact with the skin, bacterial organisms commonly present on the skin would also be expected, <i>Staphylococcus epidermidis</i>, <i>Corynebacterium</i> spp., <i>Micrococcus</i> spp. etc. Could there be some mis-identification of some organisms? For example, in Table 1, <i>Pseudomonas aeruginosa</i> is listed as producing acid or acid/gas in carbohydrate broths, however, this organism is not able to ferment. Line 117: “isolated” should be “isolates” Line 122: it is redundant to state ...<i>E. coli</i> a faecal indicator organism is an indication of faecal contamination... Line 145: capitalize “Kitchen” Line 180: “$3.60 \times 10^7 - 9.7 \times 10^7$” Line 187: “where” should be “were”	It is possible to isolate these bacteria from the sponges and noted. But these other organisms were not recovered from the sponges. However, the saponifying and possible antimicrobial properties of the washing soaps could have eliminated these other isolates from the sponges. Thus, their non-isolation. The correction on fermentation status of <i>Pseudomonas aeruginosa</i> has been corrected. “Isolates” has been used in the text. Redundancy of the statement has been corrected. Line 145: “Kitchen” has been capitalized. “Where has been replaced with “were”. Line 180 has been corrected. Lines 185-189: the offensive nature of the sentence has been corrected. So also the mix up in the values of the three localities. This mix up has been carefully reviewed and corrected.
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	Lines 185-189: the authors state that the sponges from Amawom have the highest coliform numbers and that this could be attributed to the “low hygienic standard of the rural community.” To this reader, this is not an appropriate statement to make regarding a community of individuals and may be offensive. What is also troubling is that the numbers reported in Tables 4, 5 and 6 indicate that the coliform count from Amawom is not any higher than the other 2 sites evaluated. The authors need to re-evaluate their statements. Lines 198-203: The authors state that “Inadequate disinfection methods contributed to higher number (sic) of microbial contamination of our kitchen sponges.” As recorded in the Methods section, no indication is given as to the kind of disinfection that was applied to each of the collected sponges. If sponge treatment in any particular household is not known, it is simply not possible to make such a statement. The authors either need to provide the disinfection information more accurately or adjust their statement. In the remaining section of this paragraph, the authors address sanitizers and that the goal is to achieve 99.999% “reduction in disease microorganism (sic) of public health importance.” This reader is not able to find the citation (number 21, the FDA report) and can not determine if the authors are addressing “sanitizers...used in accordance with the manufacturer’s use direction” or if the authors are referring to reductions in bacteria after using microwaves or dishwashers (as the FDA recommends in other reports). The authors must clarify. Lines 222-223: The authors state that “all the bacterial isolates were susceptible to Ofloxacin”; however, according to the results presented in Table 7, none of the isolates were susceptible but were “Intermediate.” Please also note that in this section, some organisms are reported as “most sensitive”. In fact, bacteria are Sensitive, Intermediate or Resistant based on Kirby-Bauer standards. This is akin to stating that a woman is a “little bit pregnant” when in fact, she either is or is not; thus a bacterial organism	Citation No 21 has been removed from the work. The clarification has been made. Lines 222-223: The point raised here has been fully effected. The fermentation status of <i>Pseudomonas</i> for glucose has been duly corrected. Line 235: “users” has replaced “uses”. All the corrections raised concerning the reference section have been fully attended to and highlighted in yellow in the text.
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	is simply S, I, or R. Line 235: “users” not “uses” <u>References</u> Line 252: capitalize States Line 260: capitalize Food Protection Line 266: period after 317. Line 267: capitalize University Line 268: capitalize Press Line 273: capitalize Food Line 284 capitalize Food Production (Note: this reader was not able to find the journal: Journal of Food Production Line 285: period after CP. Line 286: capitalize Food Environmental Sanitation (the journal title also includes ‘and’) Line 287: should be 20: not a period Line 294: period after E. and Food Safety should be capitalized Line 297: capitalize Food Lines 299-300: not able to find this reference, please provide correct citation <u>Tables</u> Table 3: if there were 9 isolates out of 60 sponges, this would be 15.0 %, not 17.3 Table 5: based on the data reported, the Range should be 1.77×10^9 not 1.86×10^9 Table 6: based on the data the Range should be $1.93 \times 10^8 - 1.62 \times 10^9$	This value has been corrected too. Correction taken. This correction has been handled. The mix up in reporting the susceptibility of the organisms to the antibiotics have been fully corrected. Augmentin has been spelt well. S, I and R have been used at the right placed to enhance clarity of understanding. The mix up towards Cotrimoxazole has been rectified.
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	Table 7: This table should be re-organized to include what the interpretation of the zone diameters would be. For example, when <i>S. aureus</i> has a zone of inhibition of 14.0 mm to amoxicillin, this indicates that the organism has Intermediate sensitivity while a zone of 20 mm to augmentin (not spelled 'augmentin') indicates it is Sensitive. This would resolve the need for the reader to read the zone then look up the zone on the lower part of the table to determine if the organism is S, I, or R. Please also note that the values reported for Cotrimoxazole are reversed (if the organism is Sensitive, the zone is larger than the zone would be if it were Resistant).	
<u>Compulsory</u> REVISION comments		
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		