Influence of setting-dependent contacts and protective behaviours on asymptomatic SARS-CoV-2 infection amongst members of a UK university: Supplementary Information

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A 1 Data collection and curation

A summary of participant test and survey dates by test outcome and participant age is given in Figure A1, and the resulting delays between test and survey date are shown in Figure A2.

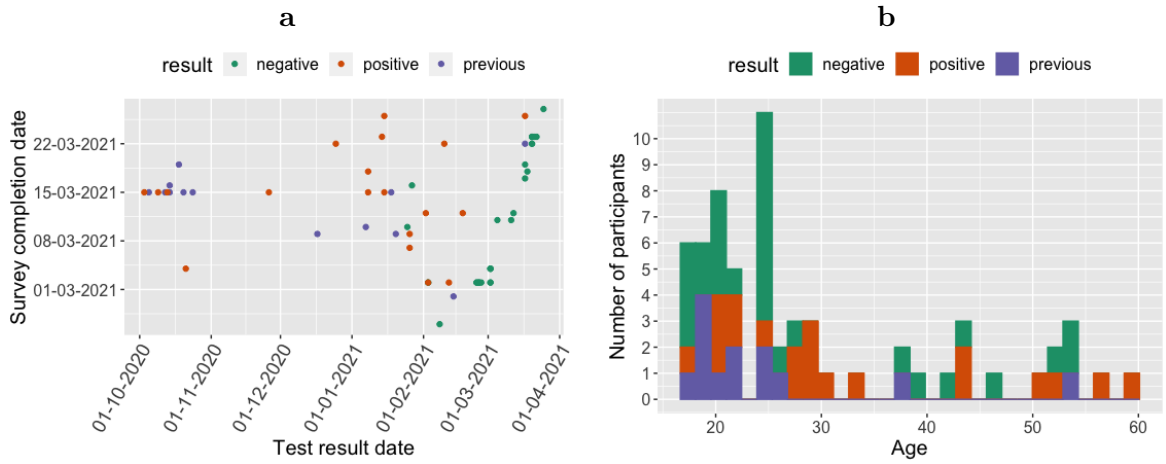

Figure A1: (a) Date of receipt of SARS-CoV-2 PCR test result versus date of survey completion. (b) Age and asymptomatic SARS-CoV-2 PCR test result of participants.

Activities involving laboratory work — including those undertaken by postgraduate students — and the activities of laboratory technicians, were classed as occurring in the research setting. Postgraduates activities indicating use of an office or activities involving one-to-one laboratory training were also classified as research. Activities were classed as occurring in a teaching setting if they involved students or postgraduate students/staff members teaching/supporting the session. Activities in this category included practicals, lectures and placements. All other activities on campus were categorised as occurring in the "Campus other" setting.

The setting non-private travel was used to describe all travel which was not a personal car or air-travel, these included public transport and taxis. The setting abroad/aeroplane is used to describe settings which include both travel by aeroplane and holiday activities.

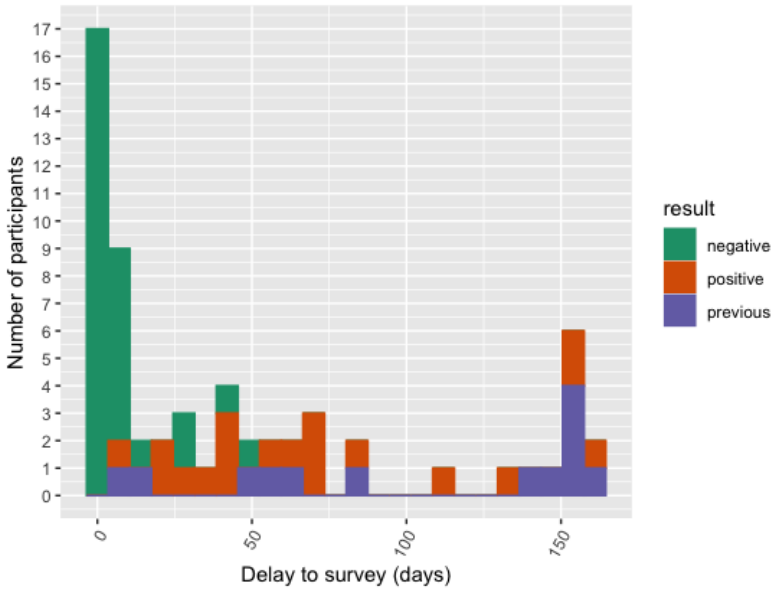

Figure A2: Delays from test result to survey completion by test outcome.

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Notable here in an individual whose activities included skiing in Italy and spa activities. Initial analysis showed that including these activities in other relevant settings (for example skiing in exercise) heavily influenced outputs. Some participants many have been abroad and but their activities or additional comments did not flag this.

Exercise may have been in a fitness centre or outdoors and included walking. Retail included essential and non-essential retail, which may have been click and collect-like or drive-through services. Non-university work describes activities should as working in a pub, supermarket and as a carer. In our sample these activities were only undertaken by students. The social setting captures activities which were not performed in another setting (such as at another household or recreation ground). Testing describes the participant taking a SARS-CoV-2 test. All other activities were classified as "other".

A 1.1 Missing and anomalous data

We identified some missing data during the data cleaning process. This affected less than 10% for data entries for each variable needed to define the contact measures (contact duration, number of contacts, number of household contacts), with 4.85% missing overall. When data was missing, this was often due to errors in using the online form (for those opting for a virtual interview), and could either be corrected by sensibly inferring the intended response using the additional contextual information about each activity, or personal information collected at the beginning of the survey.

Notable amongst these was one participant working in a role involving student interactions and two participants who accessed the library. Often participants would provide information in the "additional comments" field that enabled their activities to be classified by setting. However, motivation for this appeared to reduce over the course of the survey. Therefore, if an individual described their university work as qualifying for the research setting at any point in the questionnaire it was assumed that all their work fell into that setting category. In some cases participants did not offer any additional details and therefore activities could not be assigned to the research or teaching setting. These participant's campus activities were categorised as occurring in "Campus other".

In a very small number of activities we have imputed missing contact or contact duration data for an activity using additional contextual information and in keeping with other survey responses for that setting. For one activity, in the "Campus other" setting, a participant stated that they visited the library for 360 minutes and had 360 contacts. The university regulations did not permit this large number of individuals in library spaces at this time. Therefore, we assume this was a mistake while filling out the questionnaire. We set the number of contacts for this activity to 3, consistent with other activities reported in this setting. In this case given the large discrepancy between recorded and imputed data, we have checked our results are not sensitive to this assumption. No data was collected for the duration of contactless collection of groceries, and this has field has been set to zero.

A 2 Summary statistics for setting-specific contact measures

Covariate	Measure	Participated	#activities	Contacts	Duration	PCH	Contacts*	PCH*
HH size	mean	3.02						
	sd	2.23						
Abroad/	mean	0.06	0.24	7.02	0.38	3.53	6.67	2.72
aeroplane	sd	0.24	1,44	28.26	2.69	24.70	26.59	19.31
Campus other	mean	0.14	0.39	2.40	2.09	15.14	2.40	15.14
	sd	0.35	1.04	9.77	6.31	73.95	9.77	73.95
Exercise	mean	0.51	1.47	4.88	1.87	8.22	3.71	6.59
	sd	0.51	2.31	15.29	3.67	27.71	14.08	26.31
Hospitality	mean	0.12	0.27	4.63	0.33	8.84	4.22	8.32
	sd	0.33	0.97	21.37	1.16	35.05	19.43	33.03
Non-university	mean	0.06	0.14	4.44	0.71	41.89	4.38	41.15
work	sd	0.24	0.74	20.07	2.92	203.96	19.78	199.72
Non-private	mean	0.18	0.53	9.04	0.30	6.70	8.10	6.26
travel	sd	0.39	1.56	37.54	0.81	26.87	34.12	25.17
Other	mean	0.29	0.61	3.99	0.54	3.19	2.63	2.31
	sd	0.46	1.55	12.85	1.59	12.81	10.06	11.23
Research	mean	0.24	1.29	6.38	4.79	26.26	5.95	24.92
	sd	0.43	2.62	16.95	10.55	75.20	16.83	75.04
Retail	mean	0.59	1.04	41.33	0.49	22.69	39.90	21.95
	sd	0.50	1.38	56.47	0.85	36.14	54.27	34.12
Social	mean	0.31	0.47	1.61	0.67	3.13	0.98	2.36
	sd	0.47	0.87	4.21	1.78	12.07	4.00	11.84
Teaching	mean	0.22	0.55	9.08	1.57	28.33	6.38	19.50
	sd	0.42	1.60	27.10	5.93	102.74	18.65	69.10
Testing	mean	0.33	0.39	1.52	0.12	0.29	1.36	0.22
	sd	0.47	0.64	3.06	0.34	0.62	2.94	0.50

Table A1: The mean and standard deviation between participants of the binary measure of whether the participant participated in an activity, the number of distinct activities, total contacts , total duration of activities, PCH, the total non-household contacts and non-household PCH in each setting.

A 3 Comparison of model performance for setting-specific contact measures based on different contact definitions

Contact definition	Median	Minimum	Maximum	PMP
Participated	-22.31	-22.30	-22.32	0.38
Activities	-22.81	-22.80	-22.82	0.23
PCH*	-23.27	-23.26	-23.30	0.15
Duration	-23.74	-23.73	-23.75	0.09
PCH	-23.83	-23.82	-23.86	0.08
Contacts	-24.71	-24.69	-24.72	0.03
Contacts*	-24.72	-24.71	-24.76	0.03

Table A2: The median, minimum and maximum of the marginal log-likelihood estimates for the multivariate logistic model for each contact definition, as well as the mean posterior model probabilities (PMPs). * = contact definitions were only non-household contacts are considered. Results are given to 2 decimal places.

Household size, campus other, hospitality, retail and testing do not have supported coefficient values all with the same sign for any of the contact definitions. Non-university work has only positive coefficients for all contact measure definitions apart from contacts and non-household contacts, which were the models which received the smallest PMP values. These contact definitions also supported non-negative values of coefficients for the teaching covariate, additional to PCH (which received the smallest PMP after contacts and non-household contacts). Research did not have all-negative supported coefficients with the contact definitions number of activities and non-household contacts. However, in all these cases the distribution is heavily skewed favouring values with the sign supported in all other models.

Contact definition	Mean/median (standard deviation) Positive	Negative	Previous
Participated	0.55/0.52 (0.28)	0.27/0.22 (0.20)	0.35/0.28 (0.28)
Activities	0.55/0.56 (0.27)	0.31/0.27 (0.22)	0.43/0.40 (0.28)
PCH*	0.56/0.58 (0.33)	0.35/0.28 (0.30)	0.42/0.38 (0.33)
Duration	0.54/0.54 (0.27)	0.32/0.28 (0.23)	0.46/0.44 (0.27)
PCH	0.54/0.54 (0.30)	0.34/0.54 (0.28)	0.42/0.38 (0.30)
Contacts	0.52/0.51 (0.28)	0.34/0.30 (0.23)	0.42/0.40 (0.27)
Contacts*	0.52/0.52 (0.29)	0.34/0.30 (0.23)	0.41/0.40 (0.27)

Table A3: Predicted test outcomes for logistic regression based on different sets of contact measures.

A 4 Model checks

A 4.1 Fisher analysis

The Fisher's test analysis is consistent with the results from the logistic regression model with the highest PMP, with a positive correlation between a positive test result and abroad/aeroplane and non-university work settings and a negative correlation between a positive test result and research and teaching. The Fisher's tests also show a positive correlation between a positive test result and hospitality that was not upheld in the regression analysis, likely due to adjustment for participant interactions in other settings.

A 4.2 Leave-one-out analysis for the Bayesian logistic regression models

The median bounds of SIs from the leave-one-out deletions have the same sign as the analysis including all participants for all contact definitions and settings, apart from the support intervals (SIs) for the coefficient of non-household contacts in the social setting those for PCH in the teaching setting. These exceptions correspond to model contact definitions with low PMPs (0.03 and 0.08 respectively). Furthermore, the variation in SIs when performing the leave-one-out deletion model fits is consistent with the conclusions drawn from the full analysis. In the full analysis, non-household contact is the only contact definition to have only negative values in the SI for the social setting. Similarly, the leave-one-out deletion yields median SI bounds for the PCH contact definition that are consistent with models with larger PMPs (with all values in the SI being negative). In some cases analysis on all participants did not yield an SI, however the leave-one-out deletion analysis did.

Contact description	Lower bound Value*	Median	sd	Upper bound Value*	Median	sd
Constant						
Participated	-1.26	-1.14	0.14	0.27	0.28	0.07
Activities	-1.05	-1.05	0.29	4.51	4.72	0.20
Contacts	-1.13	-1.17	0.19	0.29	0.34	0.15
Duration	-1.22	-1.44	0.31	0.43	0.46	0.27
PCH	-1.12	-1.14	0.14	0.38	0.42	0.19
Contacts*	-1.14	-1.15	0.22	0.32	0.29	0.18
PCH*	-1.17	-1.45	0.26	0.38	0.35	0.15
HH size						

Participated	-0.86	-0.87	0.11	0.33	0.36	0.10
Activities	-0.42	-0.89	0.07	0.78	0.33	0.07
Contacts	-0.70	-0.78	0.07	0.46	0.45	0.06
Duration	-0.94	-0.91	0.08	0.37	0.32	0.07
PCH	-0.65	-0.67	0.07	0.51	0.51	0.07
Contacts*	-0.71	-0.78	0.07	0.45	0.45	0.06
PCH*	-0.65	-0.64	0.067	0.52	0.53	0.07
Abroad/aeroplane						
Participated	1.63	1.74	0.39	3.19	3.03	0.42
Activities	-	1.09	1.06	-	2.22	1.45
Contacts	-	0.56	1.95	-	1.11	2.54
Duration	-	1.26	0.00	-	1.39	0.00
PCH	-	3.68	0.29	-	4.94	1.65
Contacts*	-	0.49	1.78	-	1.03	4.04
PCH*	-	6.02	1.36	-	16.46	17.22
Campus other						
Participated	-0.77	-0.71	0.16	0.48	0.55	0.17
Activities	-0.42	-0.41	0.10	0.78	0.83	0.08
Contacts	-0.27	-0.26	0.08	0.92	0.93	0.09
Duration	-0.27	-0.26	0.08	0.91	0.91	0.08
PCH	-0.11	-0.11	0.06	1.09	1.10	0.08
Contacts*	-0.21	-0.20	0.09	0.98	0.99	0.09
PCH*	-0.12	-0.11	0.07	1.08	1.13	0.09
Exercise						
Participated	-1.17	-1.23	0.09	0.05	0.07	0.08
Activities	-2.02	-2.10	0.12	-0.40	-0.51	0.07
Contacts	-0.29	-0.28	0.14	1.00	1.02	0.16
Duration	-1.61	-1.66	0.07	-0.25	-0.24	0.03
PCH	-0.95	-0.96	0.10	0.31	0.25	0.11
Contacts*	-0.23	-0.25	0.12	1.05	1.04	0.14
PCH*	-0.74	-0.76	0.22	0.34	0.37	0.12
Hospitality						
Participated	-0.92	-0.90	0.22	0.18	0.23	0.19
Activities	-0.32	-0.29	0.06	0.60	0.81	0.06
Contacts	-	-	-	-	-	-
Duration	-0.04	-0.03	0.08	1.09	1.12	0.10
PCH	-	-	-	-	-	-
Contacts*	-	-	-	-	-	-
PCH*	-	-13.49	3.28	-	-5.78	0.16
Non-university work						
Participated	1.95	2.10	0.20	5.23	5.27	0.33
Activities	0.78	0.78	0.10	2.27	2.39	0.18
Contacts	-0.02	-0.02	0.07	1.18	1.23	0.11
Duration	0.12	0.11	0.08	1.50	1.52	0.06
PCH	0.20	0.11	0.60	1.04	1.10	0.95
Contacts*	-0.03	-0.01	0.05	1.18	1.26	0.11
PCH*	0.25	0.24	0.66	1.13	1.10	2.66
Non-private travel						
Participated	-1.20	-1.32	0.17	0.01	0.05	0.15
Activities	-1.21	-1.17	0.21	0.10	0.10	0.06
Contacts	-1.20	-1.11	0.09	0.14	0.16	0.09
Duration	-1.06	-1.07	0.11	0.32	0.36	0.09

PCH	-1.20	-1.23	0.10	-0.35	-0.35	0.07
Contacts*	-1.04	1.04	0.20	0.03	0.04	0.03
PCH*	-1.09	-1.10	0.09	-0.23	-0.21	0.07
Other						
Participated	-0.54	-0.51	0.11	0.73	0.75	0.14
Activities	-0.91	-0.89	0.09	0.35	0.32	0.07
Contacts	-1.35	-1.32	0.07	-0.05	-0.04	0.05
Duration	-1.15	-1.12	0.16	0.31	0.34	0.17
PCH	-	-0.81	0.00	-	0.44	0.00
Contacts*	-1.10	-1.07	0.05	0.08	0.09	0.03
PCH*	-	-20.21	26.72	-	1.83	11.32
Research						
Participated	-1.73	-1.83	0.12	-0.34	-0.34	0.12
Activities	-1.36	-1.34	0.08	0.02	0.04	0.07
Contacts	-1.28	-1.35	0.06	-0.05	-0.04	0.03
Duration	-1.32	-1.32	0.06	0.01	0.01	0.04
PCH	-1.34	-1.34	0.04	-0.05	-0.06	0.02
Contacts*	-1.19	-1.20	0.00	0.01	0.02	0.04
PCH*	-1.28	-1.26	0.05	-0.01	-0.00	0.04
Retail						
Participated	-0.37	-0.36	0.08	0.93	0.92	0.10
Activities	-1.25	-1.23	0.07	0.04	0.05	0.05
Contacts	-0.89	-0.91	0.06	0.25	0.26	0.06
Duration	-0.89	-0.89	0.09	0.30	0.30	0.09
PCH	-0.74	-0.73	0.07	0.46	0.46	0.07
Contacts*	-1.07	-1.04	0.07	0.19	0.19	0.05
PCH*	-0.66	-0.71	0.07	0.48	0.49	0.06
Social						
Participated	-0.36	-0.35	0.09	0.91	0.90	0.08
Activities	-0.11	-0.06	0.07	1.29	1.30	0.07
Contacts	-0.91	-0.92	0.11	0.25	0.18	0.08
Duration	0.02	0.02	0.10	1.34	1.36	0.11
PCH	0.14	0.14	0.21	1.26	1.25	0.34
Contacts*	-1.05	-1.03	0.09	0.01	0.03	0.08
PCH*	-	0.79	1.21	-	1.28	2.62
Teaching						
Participated	-2.46	-2.43	0.11	-0.71	-0.76	0.13
Activities	-1.71	-1.71	0.11	-0.22	-0.29	0.06
Contacts	-1.35	-1.34	0.04	-0.08	-0.05	0.14
Duration	-1.38	-1.25	0.08	-0.04	-0.02	0.06
PCH	-1.34	-1.33	0.10	-0.02	-0.03	0.06
Contacts*	-1.28	-1.24	0.06	-0.01	-0.02	0.04
PCH*	-1.45	-1.51	0.32	-0.08	-0.12	0.25
Testing						
Participated	-0.95	-0.95	0.14	0.27	0.37	0.15
Activities	-0.65	-0.59	0.09	0.63	0.68	0.08
Contacts	-0.53	-0.51	0.07	0.71	0.72	0.07
Duration	-0.82	-0.82	0.05	0.43	0.43	0.06
PCH	-0.72	-0.69	0.08	0.51	0.50	0.07
Contacts*	-0.33	-0.36	0.06	0.87	0.87	0.08
PCH*	-0.61	-0.59	0.08	0.61	0.56	0.08

Table A4: Median and standard deviation of results from leave-one-out deletion for the upper and lower bounds of SIs for contact measures. * Value corresponds to the bound of the SI when all data is included in the analysis, as in Figure 2. † Sign of result different to when all data is included in the analysis.

A 4.3 Out of sample predictions

Figure A3 shows the predicted probability of positive asymptomatic PCR SARS-CoV-2 test for the positive, negative and previously positive groups using the logistic regression with covariates indicating participation in an activity in each setting. The medians for the positive, negative and previous groups were 0.52, 0.22 and 0.28 (see Table A3). Note that a greater proportion of the previous group were students (11/13) compared to the negative group (21/29), however a Fisher's exact test indicated this was not a significant difference at the 5% level.

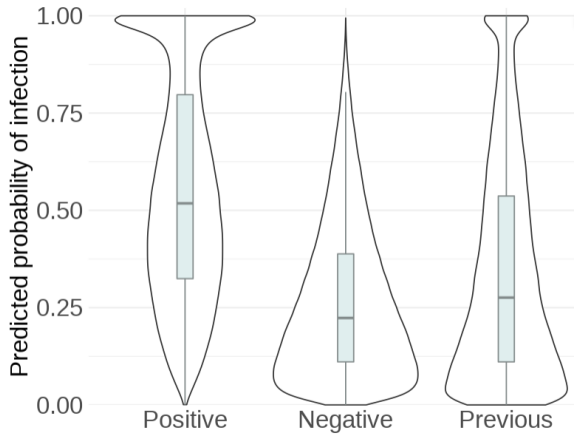

Figure A3: Predicted probabilities of positive asymptomatic PCR SARS-CoV-2 test calculated using the logistic regression with participation in any activity in each setting as the predictive contact measure for each group of participants. Medians are given as a black dot and means are given as a green dot.

A 5 Protective behaviours

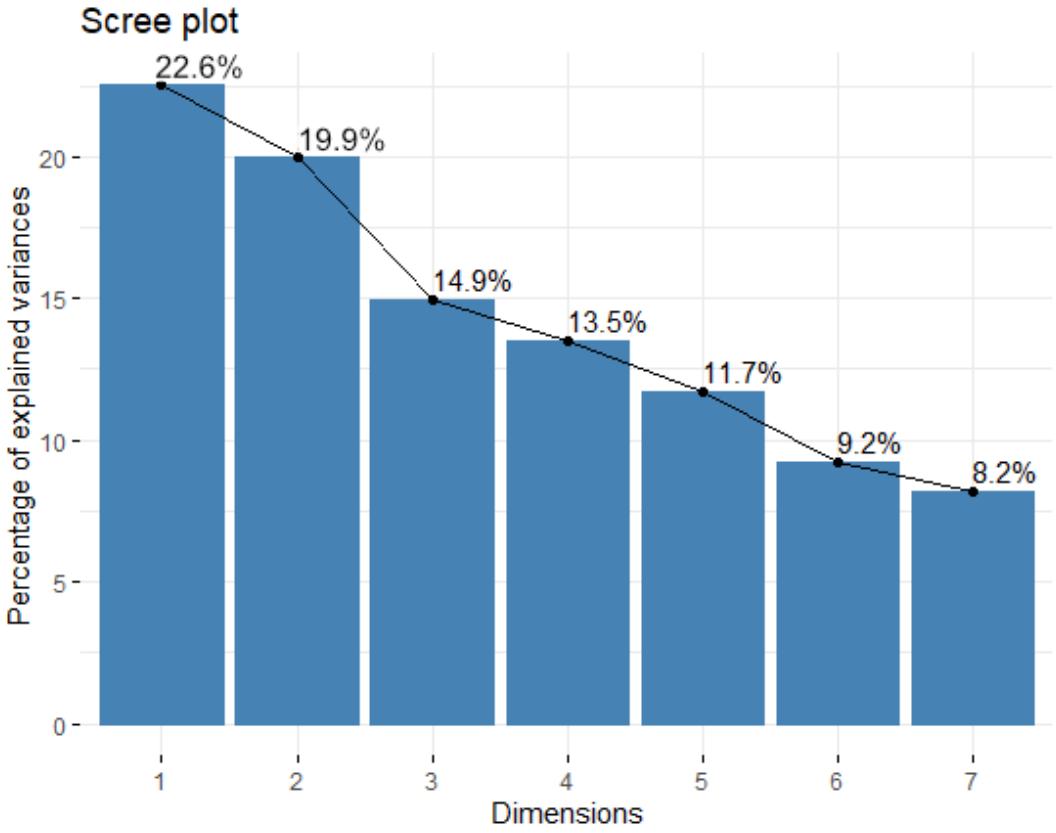

Figure A4: Variance described by each dimension in the MCA analysis.

Variable	Dim 1 (22.5%)		Dim 2 (20.0%)		Dim 3 (14.9%)		Dim 4 (13.5%)	
Quantitative	Correl.	p	Correl.	p	Correl.	p	Correl.	p
Age*	0.14	7.2e-3	0.13	9.9e-3	_	_	_	_
Qualitative	R^2	p	R^2	p	R^2	p	R^2	p
Gender*	_	_	_	_	_	_	0.02	1.5e-2
Role*	0.04	1.0e-3	_	_	_	_	_	_
Result*	0.04	1.1e-4	0.04	6.4e-5	_	_	_	_
Setting*	0.46	9.8e-41	0.34	4.7e-26	0.17	7.1e-10	0.15	5.6e-8
Environment	0.42	4.5e41	0.36	1.6e-34	0.11	6.2e-09	0.56	1.9e-62
Mask	0.51	2.1e-55	0.04	8.4e-4	_	_	0.03	3.2e-3
SD	0.09	1.3e-7	0.57	3.3e-66	_	_	_	_
Hands	0.58	7.6e-65	0.46	1.3e-45	0.93	1.7e-197	0.36	8.2e-33

Table A5: MCA results. * supplementary variables (not included in dimension calculation). Function used to calculate = r dimdesc. 4 dimensions describe 70% of variance - each dimension is given in the brackets.

For the Fisher's tests categorical properties were converted into Boolean measures, coded 1 or 0 if property was true or false respectively, for each activity. The true options for the Boolean measures were whether an activity was associated with a female, UG, PG, staff, positive test result, each setting (1 variable for each), indoors, ventilated (either outdoors or ventilated indoors), mask worn, socially distanced at all times, washed hands before, washed hands after and washed hands both before and after. Some properties could have more than two answers (role, setting, environment and hand washing) and are split into multiple Boolean measures.

Correlated variables		OR	95% OR CI		p value
Female	UG	6.472795	3.493324	12.71164	4.36E-10
Female	Staff	0.337524	0.21185	0.533905	1.13E-05
Female	Positive	2.664691	1.599047	4.529741	0.000469
Female	Abroad/aeroplane	Inf	1.530765	Inf	0.02225
Staff	Abroad/aeroplane	12.2377	1.664423	540.6127	0.011299
Positive	Abroad/aeroplane	Inf	4.976757	Inf	8.71E-05
PG	Campus other	0	0	0.573969	0.018168
Staff	Campus other	3.870203	1.280474	14.05116	0.025649
Positive	Hospitality	11.24038	2.337989	107.3193	0.001599
Positive	Non-university work	Inf	3.120526	Inf	0.001599
Staff	Other	3.758366	1.543411	10.11401	0.005749
Female	Research	0.30956	0.16708	0.562325	0.000254
UG	Research	0	0	0.107677	6.22E-10
PG	Research	7.039633	3.786352	13.33705	1.09E-09
Positive	Research	0.214044	0.079453	0.493209	0.000217
UG	Teaching	12.43208	4.413549	43.29909	2.76E-07
Staff	Teaching	0.043895	0.001063	0.273694	2.85E-05
Positive	Teaching	0.152793	0.017266	0.63121	0.009242
PG	Ventilated	0.4818	0.282386	0.822384	0.018302
Exercise	Ventilated	51.47862	8.662316	2073.156	8.39E-12
Hospitality	Ventilated	0.156996	0.026785	0.646021	0.01201
Non-university work	Ventilated	0.080149	0.001728	0.673413	0.021085
Research	Ventilated	0.304279	0.164898	0.555779	0.000301
Retail	Ventilated	0.380887	0.19778	0.729087	0.00783
Social	Ventilated	5.696474	1.351154	51.01485	0.029157
PG	Indoors	2.038997	1.161187	3.674717	0.029157
Exercise	Indoors	0.034354	0.0126	0.079868	5.81E-23
Hospitality	Indoors	Inf	1.781015	Inf	0.015058
Research	Indoors	Inf	13.94208	Inf	2.23E-13
Retail	Indoors	2.238987	1.091414	4.906826	0.049792
Social	Indoors	0.113769	0.027468	0.354014	7.98E-05
Teaching	Indoors	8.225179	1.983399	72.93845	0.002343
Positive	Mask	0.513287	0.309268	0.85161	0.021085
Abroad/aeroplane	Mask	0	0	0.336928	0.001918
Exercise	Mask	0.232761	0.128445	0.415815	2.77E-06
Hospitality	Mask	0.093413	0.009776	0.449727	0.002052
Travel	Mask	14.02407	2.232678	582	0.001612
Research	Mask	4.802925	2.073896	12.98889	0.000186
Retail	Mask	12.77424	3.211127	111.1286	1.91E-05
Social	Mask	0.022366	0.000536	0.144744	1.15E-07
Teaching	Mask	Inf	2.823971	Inf	0.000961

Indoors	Mask	4.082006	2.441941	6.89965	2.22E-07
PG	SD	2.000447	1.164936	3.501119	0.025873
Positive	SD	0.441388	0.269018	0.720046	0.00265
Abroad/aeroplane	SD	0	0	0.504648	0.009137
Exercise	SD	3.504704	1.844847	7.01555	0.000202
Travel	SD	0.304539	0.111036	0.763133	0.021085
Retail	SD	0.420856	0.205431	0.841077	0.026294
Ventilated	SD	2.606503	1.577373	4.337191	0.000592
Indoors	SD	0.54059	0.327	0.885405	0.029403
PG	No hands	0.052152	0.001277	0.315869	7.70E-05
Staff	No hands	3.081542	1.539377	6.415828	0.002903
Positive	No hands	3.916108	1.976742	7.937215	0.000232
Abroad/aeroplane	No hands	72.79709	9.626162	3206.739	8.78E-07
Travel	No hands	10.62188	4.1694	27.59858	2.77E-06
Research	No hands	0.089935	0.002189	0.550464	0.005749
Retail	No hands	0.114598	0.002779	0.706546	0.021145
Indoors	No hands	0.345876	0.156526	0.741046	0.01201
Mask	No hands	0.261738	0.126618	0.527625	0.00037
SD	No hands	0.108521	0.039392	0.25783	5.02E-08
PG	Hands before	2.127534	1.170659	4.027228	0.025873
Abroad/aeroplane	Hands before	0.044193	0.001001	0.326248	0.000633
Campus other	Hands before	7.733918	1.180849	326.9385	0.04522
Exercise	Hands before	0.490605	0.275869	0.877285	0.03556
Travel	Hands before	0.336782	0.136612	0.817318	0.035196
Research	Hands before	4.038419	1.746327	10.90549	0.001122
Teaching	Hands before	Inf	3.061419	Inf	0.000469
Indoors	Hands before	3.1059	1.852618	5.249085	5.98E-05
Mask	Hands before	3.538563	2.097997	6.011858	6.70E-06
Female	Hands after	0.437693	0.205932	0.877194	0.039494
PG	Hands after	7.117743	2.206516	36.59253	0.000446
Staff	Hands after	0.373618	0.191725	0.709843	0.005749
Positive	Hands after	0.252148	0.13008	0.479725	8.72E-05
Abroad/aeroplane	Hands after	0.016663	0.000378	0.125221	2.77E-06
Travel	Hands after	0.117277	0.045819	0.294809	1.67E-05
Research	Hands after	13.22285	2.173833	541.5632	0.001557
Mask	Hands after	3.494713	1.816303	6.835463	0.000465
SD	Hands after	8.446876	3.855998	20.55385	1.16E-08
PG	Hands both	2.028788	1.137624	3.74398	0.037134
Abroad/aeroplane	Hands both	0.04874	0.001104	0.359476	0.00107
Campus other	Hands both	8.507178	1.300038	359.4156	0.044095
Travel	Hands both	0.373344	0.151746	0.904635	0.044095
Research	Hands both	4.48648	1.943084	12.10406	0.000455
Teaching	Hands both	12.97079	2.067061	538.1547	0.002903
Indoors	Hands both	2.697677	1.629032	4.493621	0.000341
Mask	Hands both	3.53807	2.114156	5.964829	5.62E-06
SD	Hands both	1.887969	1.154352	3.099289	0.026142

Table A6: Significant Fisher's test results - Benjamini-Hochberg adjusted p-values. PG = Postgraduate, UG = undergraduate, Positive = positive test result, Mask = face covering worn, SD = socially distanced, No hands = no hand washing, Hands before/after/both = hands washed before/after/both.

In our sample only the abroad/aeroplane setting was solely visited by females, which likely contributed to the significance of females receiving a positive result. Females (who

make up 61% of our total sample) were also more likely to be in an UG role (75% of UGs female) than PG (50% of PGs) or employed (53% of staff)). This may explain the negative correlation between research setting and females (which participating in, according to the logistic regression, reduced the probability of positive asymptomatic SARS-CoV-2 PCR test). It is therefore plausible that female and positive test result are positively correlated due to their role at the university and the relatively small sample size.