Identifying the psychological determinants of handwashing: results from two cross-sectional questionnaire studies in Haiti and Ethiopia

Supplementary material:

Item wording of the psychological factors and Cronbach's alphas

Descriptive statistics

Spearman correlations for handwashing and psychological factors

Contzen, Nadja^{a, b}; Ph. D.

Mosler, Hans-Joachim^a, Ph. D.

^a Environmental and Health Psychology, Department of Environmental Social Sciences, Eawag: Swiss Federal Institute of Aquatic Science and Technology, Überlandstrasse 133, P.O. Box 611, 8600 Dübendorf, Switzerland

^b Corresponding author: <u>nadja.contzen@eawag.ch</u>

Table SM-1. Item wording of the psychological factors and Cronbach's alphas, Haiti

Factor groups	Construct	Items	α
Risk perception	Vulnerability	How high or low do you feel are the chances that you or someone in your family gets cholera? $(-4 = very \ low \ to \ 4 = very \ high)$	_
factors	Severity	Imagine that you contracted cholera, how severe would be the impact on your life in general? (0 = not severe to 4 = very severe) your social life? (0 = not severe to 4 = very severe) your economic situation? (0 = not severe to 4 = very severe)	.85
	Health knowledge	Can you tell me what causes cholera? What are the effects of cholera on your body? Can you tell me how you can protect yourself and your family from getting cholera or diarrhea? Can you tell me what you have to do if someone gets cholera? (Open question format. Answers were scored according to correctness. 0 = no knowledge to 4 = maximal knowledge score)	.70
Attitude factors – instrumental	Instrumental beliefs	How certain are you that washing your hands with soap after defecation and before handling food prevents you and your family from getting diarrhea or cholera? (0 = not certain to 4 = very certain) I feel more attractive when I wash my hands with soap that smells good. (-4 = I strongly disagree to 4 = I strongly agree) Do you think that washing hands with soap is something that demands effort? (0 = not at all to 4 = very much) Do you think that washing hands with soap is something that takes time? (0 = not at all to 4 = very much) Do you think that soap is too expensive for everyday handwashing? (0 = not at all to 4 = very much) The device I use to wash my hands, for example handwashing station, sink, bucket, etc. is too far away to go there every time I should wash my hands. (-4 = I strongly disagree to 4 = I strongly agree)	n/a
	Nurture ^a	I wash my hands with soap because I would risk the health of my children if I did not wash my hands with soap. $(-4 = I strongly disagree to 4 = I strongly agree)$ I wash my hands because I want to set a good example for the children. $(-4 = I strongly disagree to 4 = I strongly agree)$.46
Attitude factors – affective	Affective beliefs	Do you like or dislike washing hands with soap? $(-4 = I \text{ dislike it very much to } 4 = I \text{ like it very much})$ Do you like or dislike the smell of the soap? $(-4 = I \text{ dislike it very much to } 4 = I \text{ like it very much})$.55
	Disgust, stool-related ^b	I feel dirty and smelly if I don't wash my hands with soap after visiting the toilet. $(-4 = I strongly disagree to 4 = I strongly agree)$	_
	Disgust, food-related ^b	I wash my hands with soap before handling food because it would be disgusting to get dirt into the food and then eat it. $(-4 = I strongly disagree to 4 = I strongly agree)$	_

Table SM-1 (continued). Item wording of the psychological factors and Cronbach's alphas, Haiti

Factor groups	Construct	Items	α
Norm factors	Norms, faeces- related	How many people of your relatives wash hands with soap after contact with stool? $(0 = (almost) nobody \text{ to } 4 = (almost) all of them)$.69
		How many people of your community wash hands with soap after contact with stool? $(0 = (almost) nobody to 4 = (almost) all of them)$	
		Most of the people who are important to me support me in washing hands with soap after contact with stool. ($-4 = I strongly disagree$ to $4 = I strongly agree$)	
		Most of the people who are important to me think I should wash my hands with soap after contact with stool. ($-4 = I strongly disagree$ to $4 = I strongly agree$)	
	Norms, food- related	How many people of your relatives wash hands with soap before handling food? $(0 = (almost) nobody to 4 = (almost) all of them)$.72
		How many people of your community wash hands with soap before handling food? $(0 = (almost) nobody \text{ to } 4 = (almost) all \text{ of } them)$	
		Most of the people who are important to me support me in washing hands with soap before handling food. ($-4 = I strongly disagree$ to $4 = I strongly agree$)	
		Most of the people who are important to me think I should wash my hands with soap before handling food. $(-4 = I strongly disagree to 4 = I strongly agree)$	
Ability factors	Motivational self- efficacy, stool- related	Do you think you are able to always wash hands with soap after contact with stool? $(0 = not \ able \ to \ 4 = very \ able)$	_
	Motivational self- efficacy, food- related	Do you think you are able to always wash hands with soap before handling food? $(0 = not \ able \ to \ 4 = very \ able)$	_
	Volitional self- efficacy	Imagine you have stopped washing hands with soap for several days e.g. because the device you use to wash your hands was out of order. How confident are you to start washing hands with soap again? $(0 = not \ confident)$ to $4 = very \ confident)$	-

Table SM-1 (continued). Item wording of the psychological factors and Cronbach's alphas, Haiti

Factor groups	Construct	Items	α
	Impediments	How often does it happen that you want to wash hands with soap but there is something that hinders you in doing so? $(0 = (almost) \text{ never to } 4 = (almost) \text{ always})$.74
		How often does it happen that the device you use to wash your hands, for example handwashing station, sink, bucket etc. is damaged? $(0 = (almost) \text{ never to } 4 = (almost) \text{ always})$	
		How often does it happen that the device you use to wash your hands, for example handwashing station, sink, bucket etc. is stolen? $(0 = (almost) \text{ never to } 4 = (almost) \text{ always})$	
		How often does it happen that there is no water in the device you use to wash your hands, for example handwashing station, sink, bucket, etc.? $(0 = (almost) \text{ never to } 4 = (almost) \text{ always})$	
		How often does it happen that there is no soap at the device you use to wash your hands, for example handwashing station, sink, bucket, etc.? $(0 = (almost) \text{ never to } 4 = (almost) \text{ always})$	
Self-regulation factors	Coping planning, stool-related	Do you have a detailed plan of what you are doing when the device you use to wash your hands, for example handwashing station, sink, bucket etc. is out of order (e.g. damaged, no water or no soap)? $(0 = no \text{ detailed plan to } 4 = \text{very detailed plan})$ Do you have a detailed plan that helps you to not forget to wash your hands with soap after contact with stool? $(0 = no \text{ detailed plan})$.80
	Coping planning, food-related	Do you have a detailed plan of what you are doing when the device you use to wash your hands, for example handwashing station, sink, bucket, etc. is out of order (e.g. damaged, no water or no soap)? $(0 = no \text{ detailed plan to } 4 = \text{ very detailed plan})$.78
		Do you have a detailed plan that helps you to not forget to wash hands with soap before handling food? $(0 = no \ detailed \ plan)$ to $4 = very \ detailed \ plan)$	
	Forgetting, stool-related	How often does it happen that you forget to wash hands with soap after contact with stool? $(0 = (almost) \text{ never to } 4 = (almost) always)$	_
	Forgetting. food-related	How often does it happen that you forget to wash hands with soap before handling food? $(0 = (almost) \text{ never to } 4 = (almost) \text{ always})$	_
	Commitment, stool-related	Do you feel committed to washing hands with soap after contact with stool? $(0 = not \ committed \ to \ 4 = very \ committed)$	_
	Commitment, food-related	Do you feel committed to washing hands with soap before handling food? $(0 = not \ committed \ to \ 4 = very \ committed)$	-

Notes: n/a = not applicable: items are that diverse in content that a common variance is not expected and thus Cronbach's alphas are not applicable. Still, the items were combined to scales due to theoretical reasons. ^{a & b} Nurture and disgust were not combined into larger scales, to allow for examining their unique explanatory power.

Table SM-2. Item wording of the psychological factors and Cronbach's alphas, Ethiopia

Factor groups	Construct	Items	α							
Risk perception	Vulnerability	How high do you feel is the risk that you'll get diarrhea? $(0 = no \ risk \ to \ 4 = high \ risk)$.89							
factors		How high do you feel is the risk that the child under the age of 5 in your household will get diarrhea? $(0 = no \ risk \ to \ 4 = high \ risk)$								
	Severity	Imagine that you contracted diarrhea. How severe would the impact be on	.76							
		your life in general? $(0 = not \ severe \ to \ 4 = very \ severe)$								
		your social life? $(0 = not \ severe \ to \ 4 = very \ severe)$								
		your economic situation? $(0 = not \ severe \ to \ 4 = very \ severe)$								
		Imagine that the child under the age of 5 contracted diarrhea how severe would that be? $(0 = not \ severe \ to \ 4 = very \ severe)$								
	Health knowledge	Can you tell me what causes diarrhea?	.68							
		What are the effects of diarrhea on your body?								
		Can you tell me how you can prevent getting diarrhea?								
		(Open question format. Answers were scored according to correctness. $0 = no \ knowledge$ to $4 = maximal \ knowledge \ score$).								
Attitude factors	Instrumental beliefs	How certain are you that washing hands with soap and water after contact with stool and before handling food prevents you and your family from getting diarrhea? ($0 = not \ certain$ to $4 = very \ certain$)	n/a							
		Do you feel more attractive when you wash your hands with soap and water? $(0 = not \ at \ all \ more \ attractive)$ to $4 = much \ more \ attractive)$								
		(Do you think that washing hands with soap and water is expensive? $(0 = not \ at \ all \ to \ 4 = very \ much))^a$								
		(Do you think that washing hands with soap and water is time-consuming? $(0 = not \ at \ all \ to \ 4 = very \ much))^a$								
		(Do you think that washing hands with soap and water takes a lot of effort? $(0 = not \ at \ all \ to \ 4 = very \ much))^a$								
		(Do you think that the hand washing facility is far away from your usual area of activity? $(0 = not \ at \ all \ to \ 4 = very \ much))^b$								
	Nurture ^c	Do you think that you risk the health of your children if you don't wash your hands with soap and water? $(0 = not \ risk \ their \ health \ at \ all \ to \ 4 = risk \ their \ health \ very \ much)$.57							
		Do you wash your hands with soap and water because you wish to set a good example for the children? $(0 = not \ at \ all \ to \ 4 = very \ much)$								
	Affective beliefs	How much do you like or dislike washing hands with soap and water? $(-4 = I \text{ dislike it very much to } 4 = I \text{ like it very much})$.76							
		How pleasant or unpleasant do you think it is to wash hands with soap and water? ($-4 = very much unpleasant$ to $4 = very much pleasant$)								

Table SM-2 (continued). Item wording of the psychological factors and Cronbach's alphas, Ethiopia

Factor groups	Construct	Items	α
	Disgust, stool-related ^d	Do you feel dirty if you don't wash your hands with soap and water after defecation? (0 = don't feel dirty to 4 = feel very dirty)	_
	Disgust, food-related ^d	Do you think it is disgusting not to wash hands with soap and water before handling food? $(0 = not \ disgusting \ to \ 4 = very \ disgusting)$	_
Norm factors	Norms, stool-related	How many people in your family wash hands with water and soap after contact with stool? $(0 = (almost) nobody to 4 = (almost) all of them)$.72
		How many people in your community wash hands with water and soap after contact with stool? $(0 = (almost) \ nobody$ to $4 = (almost) \ all \ of \ them)$	
		People who are important to you, do they rather approve or disapprove if you wash your hands with soap and water after contact with stool? $(-4 = nearly \ all \ disapprove \ to \ 4 = nearly \ all \ approve)$	
		People who are important to you, do they rather think you should or you should not wash your hands with soap and water after contact with stool? $(-4 = nearly \ all \ think \ I \ should)$	
	Norms, food- related	How many people in your family wash hands with water and soap before handling food? $(0 = (almost) nobody$ to $4 = (almost) all of them)$.73
		How many people in your community wash hands with water and soap before handling food? $(0 = (almost) nobody to 4 = (almost) all of them)$	
		People who are important to you, do they rather approve or disapprove if you wash your hands with soap and water before handling food? $(-4 = nearly \ all \ disapprove \ to \ 4 = nearly \ all \ approve)$	
		People who are important to you, do they rather think you should or you should not wash your hands with soap and water before handling food? $(-4 = nearly \ all \ think \ I \ should \ not \ to \ 4 = nearly \ all \ think \ I \ should)$	
Ability factors	Motivational self- efficacy, stool- related	Do you think you are able to always wash hands with soap and water after contact with stool? $(0 = not \ able \ to \ 4 = very \ able)$	_
	Motivational self- efficacy, food- related	Do you think you are able to always wash hands with soap and water before handling food? $(0 = not \ able \ to \ 4 = very \ able)$	-

Table SM-2 (continued). Item wording of the psychological factors and Cronbach's alphas, Ethiopia

Factor groups	Construct	Items	α
	Volitional self-	How confident are you that you can wash hands with soap and water	.87
	efficacy	even if you have to walk some distance to reach the next handwashing facility? $(0 = not confident)$ to $4 = very confident)$	
		even if urgent tasks arise which interfere with handwashing? $(0 = not confident to 4 = very confident)$	
		even if you do not feel like handwashing? $(0 = not confident \text{ to } 4 = very confident)$	
		Imagine you have stopped washing hands with soap and water for several days, e.g. because you didn't have water for hand washing. How confident are you to start washing hands with soap and water again? $(0 = not \ confident)$ to $4 = very \ confident)$	
	Impediments	When you think about	.75
		the last 24 hours: How often did it happen that you intended to wash hands with soap and water but were hindered in doing so? (natural numbers)	
		the last week: How often did it happen that there was no water for hand washing? (natural numbers)	
		the last week: How often did it happen that there was no soap for hand washing? (natural numbers)	
Self-regulation	Coping planning	Do you have a detailed plan	n/a
factors		what to do when there is no water for hand washing? $(0 = no \ detailed \ plan \ to \ 4 = very \ detailed \ plan)$	
		what to do when there is no soap for hand washing? $(0 = no detailed plan to 4 = very detailed plan)$	
		how to avoid forgetting to wash hands with soap and water? $(0 = no \text{ detailed plan to } 4 = very \text{ detailed plan})$	
	Forgetting	When you think about the last 24 hours: How often did it happen that you intended to wash hands with soap and water and then forgot to do so? (<i>natural numbers</i>)	-
	Commitment, stool-related	Do you feel committed to washing hands with soap and water after contact with stool? ($0 = not \ committed$ to $4 = very \ committed$)	_
	Commitment, food-related	Do you feel committed to washing hands with soap before handling food? $(0 = not \ committed \ to \ 4 = very \ committed)$	_

Notes: n/a = not applicable: items are that diverse in content that a common variance is not expected and thus Cronbach's alphas are not applicable. Still, the items were combined to scales due to theoretical reasons. ^a Items had to be excluded due to zero variance. ^b Item had to be excluded as handwashing facilities were non-existent. ^{c&d} Nurture and disgust were not combined into larger scales, to allow for examining their unique explanatory power.

Table SM-3. Descriptive statistics for outcomes and explanatory variables, Haiti (N = 811)

Group	Variable	Range	M	SM	Mdn	Skew	Kurtosis
Outcome	Handwashing, stool-related	0-4	3.57	0.56	3.67	-1.59	3.31
	Handwashing. food-related	0-4	3.05	0.82	3.25	-0.89	0.06
Risk factors	Vulnerability	-4-4 ^a	-2.07	1.90	-3.00	1.26	1.04
	Severity	0-4 ^a	2.61	0.89	3.00	-0.77	-0.22
	Health knowledge	0-4 ^a	1.11	0.41	1.09	0.31	0.79
Attitude factors	Instrumental beliefs	-4-4 ^a	2.31	0.63	2.50	-0.61	-0.34
	Nurture	-4-4 ^a	2.83	0.98	3.00	-2.36	7.68
	Affective beliefs	-4-4 ^a	2.96	0.72	3.00	-1.88	6.67
	Disgust, stool -related	-4-4 ^a	2.38	1.84	3.00	-1.81	2.31
	Disgust, food-related	-4-4 ^a	2.57	1.57	3.00	-2.43	5.84
Norm factors	Norms, stool -related	-4-4 ^a	2.76	0.93	3.00	-1.63	2.39
	Norms, food-related	-4-4 ^a	2.76	0.90	3.00	-1.66	2.77
Ability factors	Motivational self-eff., stool -related	0-4 ^a	3.20	0.56	3.00	-0.06	0.23
	Motivational self-eff., food-related	0-4 ^a	3.16	0.59	3.00	-0.20	0.38
	Volitional self-efficacy	$0 - 4^{a}$	3.11	0.50	3.00	-0.26	3.11
	Impediments	$0-4^{b}$	1.04	0.70	1.00	0.60	-0.16
Self-regulation	Coping planning, stool -related	0-4 ^a	2.52	0.85	3.00	-0.83	-0.05
factors	Coping planning, food-related	0-4 ^a	2.47	0.87	3.00	-0.79	-0.07
	Forgetting, stool -related	$0 - 4^{b}$	0.67	1.00	0.00	1.46	1.52
	Forgetting, food-related	$0-4^{b}$	0.98	1.03	1.00	0.56	-0.88
	Commitment, stool -related	0-4 ^a	3.14	0.49	3.00	-0.15	2.88
	Commitment, food-related	0-4 a	3.07	0.56	3.00	-0.57	2.55

Notes: ^a 4 represents an answer that is most in favour of the behaviour and 0 or -4, respectively, represent an answer that is most against the behaviour. ^b Reverse scaling.

Table SM-4. Descriptive statistics for outcomes and explanatory variables, Ethiopia (N = 463)

Group	Variable	Range	M	SM	Mdn	Skew	Kurtosis
Outcome	Handwashing, stool-related	0-4	2.95	0.91	3.20	-0.80	-0.34
	Handwashing, food-related	0-4	3.15	0.97	3.33	-1.08	0.02
Risk factors	Vulnerability	0-4 ^a	1.31	1.33	1.00	0.70	-0.80
	Severity	0 –4 $^{\rm a}$	3.63	0.48	3.75	-1.64	3.19
	Health knowledge	$0-4^{a}$	0.99	0.45	0.99	-0.01	0.23
Attitude factors	Instrumental beliefs	$0-4^{a}$	3.37	0.53	3.50	-0.79	0.90
	Nurture	$0-4^{a}$	3.16	0.67	3.00	-1.12	1.82
	Affective beliefs	-4-4 ^a	3.66	0.63	4.00	-3.48	17.93
	Disgust, stool-related	-4-4 ^a	3.28	0.90	3.00	-1.99	4.91
	Disgust, food-related	-4-4 ^a	3.28	0.73	3.00	-1.53	4.83
Norm factors	Norms, stool-related	-4-4 ^a	2.79	0.85	3.00	-1.43	2.62
	Norms, food-related	-4-4 ^a	2.82	0.82	3.00	-1.13	1.44
Ability factors	Motivational self-eff., stool-related	0 –4 $^{\rm a}$	3.01	0.85	3.00	-1.64	4.21
	Motivational self-eff., food-related	0 –4 $^{\rm a}$	3.02	0.83	3.00	-1.73	4.66
	Volitional self-efficacy	$0-4^{a}$	2.28	1.18	2.75	-0.53	-0.99
	Impediments	b, c	1.04	1.33	0.67	1.65	3.51
Self-regulation	Coping planning	0 –4 $^{\rm a}$	0.77	0.80	0.83	0.71	-0.41
factors	Forgetting	b, c	0.73	1.39	0.00	2.97	15.02
	Commitment, stool-related	0-4 ^a	3.08	0.80	3.00	-0.88	1.31
	Commitment, food-related	0-4 a	3.11	0.75	3.00	-0.96	2.27

Notes: ^a 4 represents an answer that is most in favour of the behaviour and 0 or -4, respectively, represent an answer that is most against the behaviour. ^b Reverse scaling. ^c Response categories are the natural numbers.

Supplementary material "Psychological determinants of handwashing"

Table SM-5. Spearman correlations for stool-related (below diagonal) and food-related (above diagonal) handwashing and psychological factors, Haiti

						Sı	pearman (correlatio	ons						
Variable ^a	HW	VUL	SEV	HKNO	INST	NURT	AFFE	DISG	NORM	MCS	VOLS	IMP	COPP	FORG	COM
HW		-0.29	0.03	-0.22	0.37	0.32	0.43	0.35	0.44	0.38	0.14	-0.44	0.45	-0.45	0.39
VUL	-0.20		0.05	0.02	-0.20	-0.16	-0.27	-0.25	-0.24	-0.26	-0.08 ^c	0.24	-0.28	0.20	-0.25
SEV	-0.02	0.05		0.02	-0.08 ^c	-0.02	-0.02	0.00	0.00	0.04	0.06	0.08 ^c	-0.07 ^c	0.09^{b}	0.02
HKNO	-0.28	0.02	0.02		-0.14	-0.24	-0.26	-0.25	-0.16	-0.21	0.05	0.13	-0.17	0.15	-0.26
INST	0.27	-0.20	-0.08 ^c	-0.14		0.28	0.33	0.32	0.37	0.37	0.13	-0.29	0.36	-0.30	0.34
NURT	0.31	-0.15	-0.02	-0.24	0.28		0.42	0.26	0.29	0.38	0.14	-0.22	0.34	-0.28	0.38
AFFE	0.34	-0.26	-0.01	-0.26	0.33	0.42		0.38	0.40	0.41	0.15	-0.26	0.41	-0.34	0.40
DISG	0.42	-0.19	0.03	-0.27	0.35	0.46	0.45		0.29	0.36	0.15	-0.19	0.27	-0.21	0.37
NORM	0.33	-0.24	0.00	-0.16	0.35	0.28	0.40	0.36		0.35	0.09^{c}	-0.39	0.32	-0.40	0.33
MCS	0.33	-0.24	0.03	-0.15	0.29	0.36	0.38	0.41	0.26		0.21	-0.23	0.41	-0.26	0.50
VOLS	0.11^{b}	-0.08 ^c	0.06	0.05	0.14	0.15	0.15	0.12 ^b	0.07°	0.26		-0.08 ^c	0.18	-0.10 ^b	0.20
IMP	-0.37	0.24	0.08°	0.14	-0.29	-0.21	-0.26	-0.29	-0.36	-0.20	-0.08 ^c		-0.33	0.40	-0.24
COPP	0.35	-0.29	-0.07 ^c	-0.13	0.33	0.37	0.41	0.40	0.33	0.37	0.18	-0.32		-0.31	0.40
FORG	-0.34	0.20	0.10^{b}	0.15	-0.30	-0.28	-0.33	-0.35	-0.38	-0.24	-0.09°	0.40	-0.32		-0.30
COM	0.31	-0.14	0.06	-0.12 ^b	0.17	0.24	0.28	0.29	0.17	0.38	0.23	-0.18	0.27	-0.15	

Notes: N stool= 806; N food = 800. ^a HW = handwashing; VUL = vulnerability; SEV = severity; HKNO = health knowledge; INST = instrumental beliefs; NURT = nurture; AFFE = affective beliefs; DISG = disgust; NORM = norms; MCS = motivational self-efficacy; VOLS = volitional self-efficacy; IMP = impediments; COPP = coping planning; FORG = forgetting; COM = commitment. Boldface: significant with p < .001, except for the following: p < .01; p < .0

Table SM-6. Spearman correlations for stool-related (below diagonal) and food-related (above diagonal) handwashing and psychological factors, Ethiopia (N = 462)

Variable ^a	HW	VUL	SEV	HKNO	INST	NURT	AFFE	DISG	NORM	MCS	VOLS	IMP	COPP	FORG	COM
HW		-0.13 ^a	0.36	0.06	0.19	0.32	0.16 ^a	0.14 ^a	0.59	0.19	0.25	-0.37	0.20	-0.36	0.26
VUL	-0.25		-0.08	0.11^{b}	0.08	0.12^{b}	-0.07	0.02	-0.21	-0.01	-0.30	0.14 ^a	-0.13 ^a	0.12 ^b	-0.05
SEV	0.33	-0.09		0.21	0.32	0.31	0.29	0.26	0.25	0.07	-0.01	-0.25	-0.03	-0.21	0.06
HKNO	0.00	0.10^{b}	0.21		0.13 ^a	-0.05	0.19	0.14 ^a	-0.11 ^b	-0.03	-0.12 ^b	-0.09	0.15 ^a	-0.09	-0.07
INST	0.23	0.08	0.32	0.14 ^a		0.45	0.16 ^a	0.25	0.20	0.13^{a}	0.14^{b}	-0.13 ^a	0.03	-0.15 ^a	0.21
NURT	0.38	0.12 ^b	0.30	-0.05	0.45		0.12 ^a	0.23	0.22	0.24	0.13 ^b	-0.09 ^b	-0.07	-0.13 ^a	0.30
AFFE	0.16	-0.08	0.29	0.19	0.16 ^a	0.12 ^a		0.19	0.20	0.02	0.02	-0.15 ^a	0.09 ^b	-0.17	0.00
DISG	0.34	-0.09 ^b	0.36	0.12 ^a	0.21	0.31	0.23		0.02	0.16 ^a	-0.13 ^b	-0.10 ^b	-0.07	-0.08	0.15 ^a
NORM	0.57	-0.22	0.21	-0.07	0.16	0.20	0.18	0.17		0.11 ^b	0.40	-0.24	0.21	-0.27	0.36
MCS	0.28	-0.04	0.05	-0.05	0.12 ^b	0.22	0.00	0.18	0.13 ^a		0.00	-0.09 ^b	0.02	-0.15 ^a	0.29
VOLS	0.28	-0.30	-0.02	-0.13 ^b	0.14 ^b	0.13 ^b	0.02	0.05	0.43	0.01		-0.22	0.46	-0.19	0.24
IMP	-0.34	0.15 ^a	-0.25	-0.09	-0.13 ^a	-0.10 ^b	-0.15	-0.16 ^a	-0.24	-0.07	-0.22		-0.14 ^a	0.57	-0.14 ^a
COPP	0.21	-0.13 ^a	-0.04	0.14 ^a	0.03	-0.06	0.09^{b}	0.03	0.27	0.01	0.46	-0.14 ^a		-0.15 ^a	0.03
FORG	-0.34	0.12 ^a	-0.21	-0.09	-0.15 ^a	-0.13 ^a	-0.18	-0.22	-0.29	-0.13 ^a	-0.19	0.58	-0.15 ^a		-0.21
COM	0.38	-0.09	0.13 ^a	-0.13 ^a	0.23	0.35	0.09	0.26	0.35	0.26	0.24	-0.16 ^a	0.01	-0.19	

Notes: N stool = 462; N food = 460. ^a HW = handwashing; VUL = vulnerability; SEV = severity; HKNO = health knowledge; INST = instrumental beliefs; NURT = nurture; AFFE = affective beliefs; DISG = disgust; NORM = norms; MCS = motivational self-efficacy; VOLS = volitional self-efficacy; IMP = impediments; COPP = coping planning; FORG = forgetting; COM = commitment. Boldface: significant with p < .001, except for the following: p < .01; p < .