

Appendix 2: Scale Validation Results

Table 1: Proportion of answer per categories of warning signs awareness variables and Kappa agreement with 95% confidence interval between the Arabic and English reference questionnaires.

Warning signs	English questionnaire (reference)		Arabic questionnaire		Kappa Agreement	95% CI of Kappa Agreement	p-value
	N	%	N	%			
Unexplained weight loss					0.879	(0.66,1.00)	<0.001
Yes	16	76.19	16	76.19			
No	2	9.52	3	14.28			
Don't Know	3	14.28	2	9.52			
Persistent (3 weeks or longer) chest infection					1	--	<0.001
Yes	16	76.19	16	76.19			
No	3	14.28	3	14.28			
Don't Know	2	9.52	2	9.52			
Cough that doesn't go away for two to three weeks					1	--	<0.001
Yes	20	95.23	20	95.23			
No	1	4.76	1	4.76			
Don't Know	0	0.00	0	0.00			
Persistent shortness of breath					1	--	<0.001
Yes	20	95.23	20	95.23			
No	0	0.00	0	0.00			
Don't Know	1	4.76	1	4.76			

Persistent tiredness or lack of energy					0.790	(0.51,1.00)	<0.001
Yes	16	76.19	15	66.66			
No	2	9.52	3	14.28			
Don't Know	3	14.28	3	14.28			
Persistent chest pain					1	--	<0.001
Yes	21	100	21	100			
No	0	0.00	0	0.00			
Don't Know	0	0.00	0	0.00			
Persistent shoulder pain					0.921	(0.771,1.00)	<0.001
Yes	7	33.33	8	38.09			
No	11	52.38	10	47.61			
Don't Know	3	14.28	3	14.28			
Coughing up blood					1	--	<0.001
Yes	20	95.23	20	95.23			
No	0	0.00	0	0.00			
Don't Know	1	4.76	1	4.76			
Ache or pain when breathing					1	--	<0.001
Yes	20	100	20	95.23			
No	0	0.00	0	0.00			
Don't Know	1	0.00	1	4.76			
Loss of appetite					0.913	(0.75,1.00)	<0.001
Yes	13	61.90	13	61.90			

No	3	14.28	4	19.04			
Don't Know	5	23.80	4	19.04			
Painful Cough					1	--	<0.001
Yes	20	90.47	20	90.47			
No	1	4.76	1	4.76			
Don't Know	0	0.00	0	0.00			
Changes in the shape of fingers or nails					0.927	(0.797,1.00)	<0.001
Yes	8	38.09	9	42.85			
No	8	38.09	7	33.33			
Don't Know	5	23.80	5	23.80			
Developing unexplained loud, high pitched sound when breathing					0.877	(0.687, 1.00)	<0.001
Yes	16	76.19	16	76.19			
No	3	14.28	4	19.04			
Don't Know	2	9.52	1	4.76			
Worsening or change in an existing cough					1	--	<0.001
Yes	20	95.23	20	95.23			
No	1	4.76	1	4.76			
Don't Know	0	0.00	0	0.00			

Table 2: Proportion of answers per categories of age at risk variable and Kappa agreement with 95% confidence interval between Arabic and English reference questionnaire

Risk factors	English questionnaire (reference)		Arabic questionnaire		Kappa Agreement	95% CI of Kappa Agreement	p-value
	N	%	N	%			
Age					1	--	<0.001
30-year-old	0	0.00	0	0.00			
50-year-old	1	4.76	1	4.76			
70-year-old	11	52.38	11	52.38			
Unrelated to age	9	42.85	9	42.85			

Table 3: Proportion of answer per categories of risk factors awareness variables and Kappa agreement with 95% confidence interval between the Arabic and English reference questionnaires.

Risk factors	English questionnaire (reference)		Arabic questionnaire		Kappa Agreement	95% CI of Kappa Agreement	p-value
	N	%	N	%			
Exposure to radon gas					0.913	(0.753,1.00)	<0.001
Strongly agree	13	61.90	13	61.90			
Agree	4	19.04	5	23.80			
Not sure	4	19.04	3	14.28			
Disagree	0	0.00	0	0.00			

Strongly Disagree	0	0.00	0	0.00			
Exposure to another persons' cigarette smoke					0.90	(0.73,1.00)	<0.001
Strongly agree	13	61.90	14	66.66			
Agree	6	28.57	5	23.80			
Not sure	2	9.52	2	9.52			
Disagree	0	0.00	0	0.00			
Strongly Disagree	0	0.00	0	0.00			
Having had treatment for any cancer in the past					1	--	<0.001
Strongly agree	11	52.38	11	52.38			
Agree	6	28.56	6	28.56			
Not sure	3	14.28	3	14.28			
Disagree	1	4.76	1	4.76			
Strongly Disagree	0	0.00	0	0.00			
Having a close relative with lung cancer					0.911	(0.75,1.00)	<0.001
Strongly agree	13	61.90	13	61.90			
Agree	6	28.56	5	23.80			
Not sure	2	9.52	3	14.28			
Disagree	0	0.00	0	0.00			

Strongly Disagree	0	0.00	0	0.00			
Exposure to chemicals such as asbestos					0.892	(0.7,1.00)	<0.001
Strongly agree	15	71.42	15	71.42			
Agree	4	19.04	5	23.80			
Not sure	2	9.52	1	4.76			
Disagree	0	0.00	0	0.00			
Strongly Disagree	0	0.00	0	0.00			
Having previous history of cancer such as head and neck cancer					1	--	<0.001
Strongly agree	11	52.38	11	52.38			
Agree	4	19.04	4	19.04			
Not sure	5	23.80	5	23.80			
Disagree	1	4.76	1	4.76			
Strongly Disagree	0	0.00	0	0.00			
Air pollution					1	--	<0.001
Strongly agree	18	85.71	18	85.71			
Agree	3	14.28	3	14.28			
Not sure	0	0.00	0	0.00			
Disagree	0	0.00	0	0.00			

Strongly Disagree	0	0.00	0	0.00			
Being a smoker					1	--	<0.001
Strongly agree	19	90.47	19	90.47			
Agree	2	9.52	2	9.52			
Not sure	0	0.00	0	0.00			
Disagree	0	0.00	0	0.00			
Strongly Disagree	0	0.00	0	0.00			
Having a previous history of lung disease, such as Chronic Obstructive Pulmonary Disease (COPD)					1	--	<0.001
Strongly agree	18	85.71	18	85.71			
Agree	2	9.52	2	9.52			
Not sure	1	4.76	1	4.76			
Disagree	0	0.00	0	0.00			
Strongly Disagree	0	0.00	0	0.00			

Table 4: Proportion of answers per categories of confidence variable and Kappa agreement with 95% confidence interval between Arabic and English reference questionnaire

Risk factors	English questionnaire (reference)		Arabic questionnaire		Kappa Agreement	95% CI of Kappa Agreement	p-value
	N	%	N	%			
Confidence					1	--	<0.001
Not at all confident	0	0.00	0	0.00			
Not very confident	7	33.33	7	33.33			
Fairly confident	9	42.9	9	42.9			
Very confident	5	23.8	5	23.8			

Reference: Handbook of Parametric and Nonparametric Statistical Procedures, Third Edition-2004.