

Supplementary File 1

Supplementary Table 1: Definition of responsible and fair research domains based on individual QRP and FRP from the questionnaire.

Category	Question number	Question
Responsible research behaviour domains		
Following meticulous research process	3	In the last three years, I gave insufficient attention to the data collection tools essential to perform my studies
	6	In the last three years, where appropriate, I pilot-tested or field-tested my research instruments prior to the start of effective data collection
	10	In the last three years, I kept adequate notes of my research process in a project
	12	In the last three years, I managed my research data carefully by storing both the raw and processed versions for a period appropriate to my discipline and methodology used
	20	In the last three years, before releasing the results of my research, I meticulously checked my work to avoid errors and biases
Good mentoring	4	In the last three years, I gave sufficient attention to the skills or expertise essential to perform my studies
	5	In the last three years, I sufficiently supervised or mentored junior co-workers
Ensuring adequate methods	7	In the last three years, I chose adequate research designs or used evidently suitable measurement instruments for my studies
	18	In the last three years, I sufficiently mentioned study flaws in my publications
	19	In the last three years, I sufficiently mentioned limitations in my publications
Aiming for transparent reporting	1	In the last three years, I disclosed who funded my studies and all my relevant financial and non-financial interests in my publications
	8	In the last three years, I drew conclusions that were sufficiently substantiated by my studies
	14	In the last three years, when making use of other people's text in my publications, I cited the source accurately in accordance with the standards of my discipline
	11	In the last three years, I mentioned clearly important details of my study method in my publications
Striving for reproducibility	2	In the last three years, I took steps to correct errors in my published work whenever I and/or peers provided valid reasons for such a correction
	9	In the last three years, I pre-registered my study protocols in line with open science practices
	15	In the last three years, I chose to submit or resubmit valid negative studies for publication
Engaging with Open science	13	In the last three years, my research was published under open access conditions
	16	In the last three years, I fully disclosed and made accessible on open science platforms the underlying data used in my research
	17	In the last three years, I fully disclosed and made accessible on open science platforms my underlying programming code or syntaxes used in my research
Fair research behaviour domains		
Aiming for engagement of local decision-makers	2	In the research I have been involved in over the last three years, I consulted end users of research during the preparation stage of research
	15	In the research I have been involved in over the last three years, end-users were consulted to develop lay dissemination products other than scientific publications
	16	In the research I have been involved in over the last three years, lay dissemination products other than scientific publications were developed specifically for end-users of research
Aiming for engagement of affected populations	1	In the research I have been involved in over the last three years, I consulted representatives of affected populations during the preparation stage of research
	14	In the research I have been involved in over the last three years, affected populations or their representatives were consulted to develop lay dissemination products other than scientific publications

	17	In the research I have been involved in over the last three years, lay dissemination products other than scientific publications were developed specifically for affected populations or their representatives
Working in partnership with local researchers	3	The research I have been involved in over the last three years, was planned in partnership with local researchers
	4	In the research I have been involved in over the last three years, detailed research protocols were prepared in consultation with all research partners
	6	In the research I have been involved in over the last three years there were clear study plans agreed upon by all study partners
	10	The research I have been involved in over the last three years was executed in partnership with local researchers
Striving for fair agreements between study partners	13	In the research I have been involved in over the last three years there were no clear and fair data ownership agreements
	17	In the research I have been involved in over the last three years, lay dissemination products other than scientific publications were developed specifically for affected populations or their representatives
	18	In the research I have been involved in over the last three years, the allocation and ordering of authorships in my publications were fair and in line with the standards of my discipline
	19	In the research I have been involved in over the last three years there were clear and fair publication agreements which gave all members of the team an opportunity for career advancement and scientific recognition
	20	In the research I have been involved in over the last three years, whenever data was made openly accessible, strategies were put in place to encourage secondary analyses by local researchers
Seeking local ethical approval	8	In the research I have been involved in over the last three years, ethical approval (or a waiver) was obtained from all institutions involved for data collection and data use concerning human subjects
	9	In the research I have been involved in over the last three years, ethical approval (or a waiver) from all countries involved was obtained for data collection and data use concerning human subjects
Ensuring respectful data collection	5	In the research I have been involved in over the last three years, research instruments were locally adapted and culturally appropriate
	11	In the research I have been involved in over the last three years, data collection staff was selected according to both technical and cultural criteria
	12	In the research I have been involved in over the last three years, data was collected in a respectful and safe manner and in an environment which safeguarded the confidentiality of respondents

Supplementary Table 2: Behaviour domain scores (mean and sd), by location of the researchers.

<i>Category</i>	<i>Overall, N = 136</i>	<i>Global South N = 82</i>	<i>Global North N = 54</i>	<i>p-value</i> ¹
<i>Responsible research behaviour categories*</i>				
Meticulous research process	6.13 (0.84)	6.09 (0.97)	6.19 (0.62)	0.7
Good mentoring	5.97 (1.22)	6.15 (1.32)	5.72 (1.03)	0.001
Adequate methods	6.01 (1.11)	6.04 (1.19)	5.96 (1.00)	0.3
Transparent reporting	6.54 (0.68)	6.48 (0.78)	6.62 (0.53)	0.8
Ensuring reproducibility	5.45 (1.55)	5.31 (1.66)	5.66 (1.37)	0.4
Open science	5.03 (1.56)	5.08 (1.71)	4.97 (1.33)	0.4
<i>Fair research behaviour categories*</i>				
Engagement of local decision-makers	4.81 (1.47)	4.86 (1.59)	4.75 (1.29)	0.5
Engagement of affected populations	4.83 (1.45)	5.08 (1.47)	4.44 (1.35)	0.038
Partnership with local researchers	6.06 (1.13)	6.13 (1.01)	5.97 (1.28)	0.8
Fair agreements between study partners	5.55 (1.09)	5.63 (1.15)	5.44 (0.99)	0.2
Local ethical approval	6.62 (1.09)	6.59 (1.27)	6.67 (0.73)	0.3
Respectful data collection	6.23 (1.07)	6.28 (1.06)	6.17 (1.07)	0.2

¹Mean (SD); ²Student T-test¹Refer to supplementary table 1 above for the questions we categorized to get the respective categories

Supplementary Table 3: Median and inter-quartile range scores for each QRP and RRP question, by location of the researchers (Likert scale from 1=never to 7=always)

No.	Variable	Overall, N = 136	Global South N = 82	Global North, N = 54	p-value ²
1	Disclosed who funded my studies and all my relevant financial and non-financial interests in my publications	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	0.8
2	Took steps to correct errors in my published work	7.00 (5.50, 7.00)	7.00 (6.00, 7.00)	7.00 (5.00, 7.00)	0.7
3	Gave sufficient attention to the data collection tools	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	6.00 (6.00, 7.00)	0.12
4	Gave sufficient attention to the skills or expertise essential to perform my studies	6.50 (6.00, 7.00)	7.00 (6.00, 7.00)	6.00 (5.75, 7.00)	0.040
5	Sufficiently supervised or mentored junior co-workers,	6.00 (5.00, 7.00)	7.00 (6.00, 7.00)	6.00 (5.00, 7.00)	0.002
6	Pilot-tested or field-tested my research instruments	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	6.00 (6.00, 7.00)	0.2
7	Chose adequate research designs,	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	0.10
8	Drew conclusions that were sufficiently substantiated	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	0.9
9	Pre-registered my study protocols,	6.00 (3.00, 7.00)	5.50 (2.00, 7.00)	6.00 (4.00, 7.00)	0.5
10	Kept adequate notes of my research process	6.00 (4.75, 7.00)	6.00 (5.00, 7.00)	6.00 (4.00, 6.50)	0.2
11	Mentioned clearly important details of my study method	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	0.9
12	Managed my research data carefully	7.00	7.00	7.00	0.6

		(6.00, 7.00)	(7.00, 7.00)	(6.00, 7.00)	
13	Research was published under open-access conditions	6.00 (5.00, 7.00)	6.00 (5.00, 7.00)	6.00 (5.00, 7.00)	0.4
14	Cited the source accurately in accordance with the standards of my discipline	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	0.6
15	Chose to submit or resubmit valid negative studies	7.00 (5.00, 7.00)	7.00 (5.00, 7.00)	7.00 (5.00, 7.00)	>0.9
16	Fully disclosed the underlying data	5.00 (3.25, 7.00)	6.00 (3.00, 7.00)	5.00 (4.00, 6.00)	0.3
17	Fully disclosed my underlying programming code	4.00 (2.00, 6.00)	4.00 (1.50, 6.00)	4.00 (3.00, 5.75)	0.6
18	Sufficiently mentioned study flaws in publications	6.00 (5.00, 7.00)	7.00 (5.00, 7.00)	6.00 (5.00, 7.00)	0.4
19	Sufficiently mentioned limitations in publications	6.00 (6.00, 7.00)	7.00 (6.00, 7.00)	6.00 (5.00, 7.00)	0.2
20	Meticulously checked work to avoid errors and biases	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	0.7
1	Consulted representatives of affected populations	6.00 (4.00, 7.00)	7.00 (6.00, 7.00)	5.00 (3.00, 6.00)	<0.001
2	Consulted end-end-users of research during the preparation stage of research	6.00 (4.00, 7.00)	6.00 (4.00, 7.00)	5.00 (4.00, 6.00)	0.032
3	The research was planned in partnership with local researchers	6.00 (5.00, 7.00)	6.00 (5.00, 7.00)	6.00 (5.50, 7.00)	0.6
4	Detailed research protocols were prepared in consultation with all research partners	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	0.4

5	Research instruments were locally adapted	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	6.00 (6.00, 7.00)	0.2
6	Clear study plans agreed upon by all study partners	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	6.00 (6.00, 7.00)	0.15
7	Clear decision-making processes agreed upon by all study partners	6.00 (5.00, 7.00)	7.00 (6.00, 7.00)	6.00 (5.00, 6.50)	0.003
8	Ethical approval (or a waiver) was obtained from all institutions involved in the research	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	0.2
9	Ethical approval (or a waiver) from all countries involved,	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	0.9
10	Research executed in partnership with local researchers	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	0.8
11	Data collection staff was selected according to both technical and cultural criteria	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	6.00 (5.25, 7.00)	0.3
12	Data was collected in a respectful and safe manner	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	7.00 (7.00, 7.00)	0.8
13	Clear and fair data ownership agreements between the institutions involved	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	6.00 (5.00, 7.00)	0.045
14	Affected populations or their representatives were consulted	5.00 (4.00, 6.00)	5.00 (4.00, 7.00)	5.00 (3.00, 5.50)	0.2
15	End-users were consulted to develop lay dissemination products	4.00 (3.00, 6.00)	5.00 (3.00, 6.00)	4.00 (3.00, 6.00)	0.6
16	Lay dissemination products were prepared —specifically for end-users of research	5.00 (4.00, 6.00)	4.50 (2.00, 6.00)	5.00 (4.00, 6.00)	0.3
	Missing	38	22	16	

17	Lay dissemination products were prepared —specifically for affected populations	4.00 (3.00, 6.00)	5.00 (2.00, 6.00)	4.00 (4.00, 5.00)	0.9
18	Allocation and ordering of authorships in my publications were fair and in line with the standards of my discipline	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	0.6
19	Clear and fair publication agreements to enable career advancement and scientific recognition	7.00 (6.00, 7.00)	7.00 (6.00, 7.00)	6.00 (5.00, 7.00)	0.093
20	Whenever data was available, strategies were put in place to encourage secondary analyses	5.00 (3.00, 6.25)	6.00 (3.25, 7.00)	4.00 (3.00, 6.00)	0.037

[1] The questionnaire can be found here: <https://zenodo.org/record/6632009#.Y90vGXbMK71>

[2] Wilcoxon rank sum test

Supplementary Table 4: Univariate and multivariate analysis for factors associated with responsible research practices.

<i>Variable</i>	<i>Beta</i>	<i>95% CI</i>	<i>p-value</i>	<i>Adj. Beta</i>	<i>95% CI</i>	<i>p-value</i>
Location of the researchers						
Global South	—	—		—	—	
Global North	0.55	-6.9, 8.0	0.9	-4.7	-19, 9.4	0.5
Academic rank of the researchers						
Associate Professor or Full Professor	—	—		—	—	
Bachelor or Master degree	-17	-26, -6.9	0.001	-14	-27, -0.74	0.042
Other (please specify)	14	-7.6, 36	0.2	15	-7.6, 38	0.2
PhD degree	-1.7	-11, 7.4	0.7	-3.2	-15, 8.2	0.6
Postdoc or Assistant Professor	0.5	-11, 12	>0.9	2.7	-10, 16	0.7
Prefer not to disclose	-7.9	-35, 19	0.6	-9.2	-37, 19	0.5
Year involvement in research						
Early Career (< 3 years post-education)	—	—		—	—	
Mid-career (3-10 years post-education)	1.9	-12, 16	0.8	2.1	-12, 16	0.8
Established (>10 years post-education)	7.8	-5.3, 21	0.2	8.7	-6.0, 23	0.2
Prefer not to disclose	-16	-56, 24	0.4	-7.3	-47, 33	0.7
Gender of the researchers						
Female	—	—		—	—	
Male	2.5	-5.0, 9.9	0.5	3.9	-4.6, 12	0.4
Prefer not to disclose	19	-21, 58	0.4	16	-24, 56	0.4
Unknown	13	-27, 52	0.5	-3.1	-58, 52	>0.9

Geographical region the researcher						
East Asia and Pacific	—	—	—	—	—	—
Europe and Central Asia	-1.5	-14, 11	0.8	1.4	-16, 19	0.9
Middle East and North Africa	-4.5	-45, 36	0.8	-5.2	-44, 33	0.8
North America	-2.3	-18, 13	0.8	-2.4	-21, 16	0.8
Prefer Not To Disclose	-36	-76, 4.6	0.086	-33	-73, 7.4	0.11
South Asia	-7.5	-22, 7.4	0.3	-3	-20, 14	0.7
Sub-Saharan Africa	1.3	-11, 14	0.8	2	-12, 16	0.8
Discipline of the researcher						
Biology/Medicine	—	—	—	—	—	—
Biostatistics/Epidemiology	0.06	-8.8, 8.9	>0.9	6.8	-2.8, 16	0.2
Unknown	5.3	-22, 32	0.7	15	-25, 54	0.5
Sociology/Anthropology	-6.4	-20, 7.6	0.4	-0.88	-16, 14	>0.9
Political sciences/Health economics	-1.5	-17, 14	0.9	5.4	-11, 22	0.5
Environmental and occupational research	9.3	-4.2, 23	0.2	13	-0.99, 27	0.072
Prefer not to disclose	2.8	-35, 41	0.9	14	-25, 53	0.5
Health systems research	2.8	-14, 19	0.7	6.3	-10, 23	0.5
Biomedical sciences	-48	-75, -21	<0.001	-43	-71, -16	0.002
Mathematics/Computer science	15	-23, 53	0.4	19	-18, 57	0.3

Supplementary Table 5: Univariate and multivariate analysis for factors associated with fair research practices.

<i>Variable</i>	<i>Beta</i>	<i>95% CI^a</i>	<i>p-value</i>	<i>Beta</i>	<i>95% CI^a</i>	<i>p-value</i>
Location of the researchers						
Global South	—	—		—	—	
Global North	-9.5	-18, -1.0	0.03	-15	-32, 1.6	0.08
Academic rank of the researchers						
Associate Professor or Full Professor	—	—		—	—	
Bachelor or Master degree	-11	-23, 0.90	0.073	-9.4	-25, 6.6	0.3
Other (please specify)	8.8	-18, 36	0.5	12	-16, 40	0.4
PhD degree	-3.4	-15, 7.7	0.5	-6.3	-20, 7.6	0.4
Postdoc or Assistant Professor	-8.2	-22, 5.5	0.2	-4.5	-20, 11	0.6
Prefer not to disclose	-3.4	-36, 29	0.8	0.44	-34, 34	>0.9
Years of involvement in research						
Early Career (< 3 years post-education)	—	—		—	—	
Mid-career (3-10 years post-education)	1.6	-14, 17	0.8	-1	-18, 16	>0.9
Established (>10 years post-education)	4.7	-10, 20	0.5	5.4	-12, 23	0.6
Prefer not to disclose	-54	-100, -7.6	0.024	-50	-99, -1.6	0.046
Gender of the researchers						
Female	—	—		—	—	
Male	-1	-9.6, 7.6	0.8	-5.6	-16, 4.6	0.3
Prefer not to disclose	-33	-78, 12	0.2	-19	-68, 30	0.4
Unknown	12	-33, 57	0.6	20	-47, 87	0.6

Geographical region the researchers institute						
East Asia and Pacific	—	—	—	—	—	—
Europe and Central Asia	2.1	-12, 17	0.8	10	-11, 31	0.3
Middle East and North Africa	27	-19, 73	0.3	14	-32, 61	0.5
North America	5.9	-12, 24	0.5	8.4	-14, 31	0.5
Prefer Not To Disclose	-15	-61, 31	0.5	-16	-65, 33	0.5
South Asia	6.4	-11, 23	0.5	4.5	-16, 25	0.7
Sub-Saharan Africa	14	0.03, 28	0.052	9.4	-6.9, 26	0.3
Discipline of the researcher						
Biology/Medicine	—	—	—	—	—	—
Biostatistics/Epidemiology	-5.6	-16, 4.8	0.3	3.3	-8.3, 15	0.6
Unknown	-0.5	-33, 32	>0.9	-6.7	-54, 41	0.8
Sociology/Anthropology	-4.9	-22, 12	0.6	-3	-21, 15	0.7
Political sciences/Health economics	4	-14, 22	0.7	11	-8.9, 30	0.3
Environmental and occupational research	16	0.35, 32	0.048	18	1.1, 35	0.04
Prefer not to disclose	22	-23, 67	0.3	28	-20, 75	0.3
Health systems research	7	-13, 27	0.5	9.6	-10, 29	0.3
Biomedical sciences	-16	-49, 16	0.3	-11	-44, 23	0.5
Mathematics/Computer science	-17	-62, 28	0.5	-10	-56, 35	0.7