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The supplementary module on COVID-19 in German COPSOQ – experiences and future development

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How we use COPSOQ in Germany

What is our COVID-19-module about?

What does its future look like?

After the construction of COPSOQ in Copenhagen in 2000 by Tage S. Kristensen, the international COPSOQ network has become central institution to develop COPSOQ.*



T.S. Kristensen

COPSOQ is not a just a set of questions.

It may be better understood as a concept about

- 1. how to create a COPSOQ questionnaire,*
- 2. how to use the questionnaire (guidelines).*



COPSOQ network meeting Istanbul

Burr, Hermann; Berthelsen, Hanne; Moncada, Salvador; Nübling, Matthias; Dupret, Emilie; Demiral, Yucel; Oudyk, John; Kristensen, Tage S.; Llorens, Clara; Navarro, Albert; Lincke, Hans-Joachim; Bocéréan, Christine; Sahan, Ceyda; Smith, Peter & Pohrt, Anne (2019). The Third Version of the Copenhagen Psychosocial Questionnaire. Safety and health at work, 10(4), 482–503. <https://doi.org/10.1016/j.shaw.2019.10.002>

First validation in Germany in 2005 on behalf of the Federal Institute for Occupational Safety and Health (BAuA) in cooperation with the University of Freiburg, University of Wuppertal.*

In 2021, we validated the COPSOQ III in Germany, which is used today. The COPSOQ database of FFAW comprises the anonymised data of more than 550,000 respondents in different occupations from over 1400 surveys.

www.copsoq.de



*Nübling, Matthias; Stöbel, Ulrich; Hasselhorn, Hans Martin; Michaelis, Martina & Hofmann, Friedrich (2006). *Measuring psychological stress and strain at work - Evaluation of the COPSOQ Questionnaire in Germany. Psycho-social medicine, 3 (Doc05), 1–14.*

**Lincke, Hans-Joachim; Vomstein, Martin; Lindner, Alexandra; Nolle, Inga; Häberle, Nicola; Haug, Ariane & Nübling, Matthias (2021). *COPSOQ III in Germany: validation of a standard instrument to measure psychosocial factors at work. Journal of occupational medicine and toxicology (London), 16(1), 50. <https://doi.org/10.1186/s12995-021-00331-1>.*



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Impacts of COVID-19 pandemic of FFAW at beginning of 2020:

A challenge to conduct surveys on risk research in the usual manner, as

- surveys immediately halted / canceled / delayed to indefinite future
- restrictions of travelling to companies / business partners
- social distancing / short work / need for home office in our company
- ...

- methodological question: How could we measure / statistically control the impacts on psychosocial situation at work in our surveys?

Like many others we had wished that we could have a longitudinal, i.e. pre- / post exposition study design, but one problem with the unexpected is that it tends to emerge unexpectedly.

Thus, like many others, **we developed a supplementary module** to COPSOQ.

(in German COPSOQ all scales: 0-100 points)

Cor.0: Do you currently work...

	yes	no
1. ... fewer hours than usual (e.g. short-time work / reduced number of hours)?	<input type="checkbox"/>	<input type="checkbox"/>
2. ... a larger proportion of your working hours from home than usual ("home office")?	<input type="checkbox"/>	<input type="checkbox"/>

Cor.1: Work from home, in a home office

(If you never work from home, please select the coloum on the right). *Cronbach's alpha = 0.84*

	to a very large extent	to a large extent	some-what	to a small extent	to a very small extent	does not apply, I do not work from home
1. I can work in a concentrated manner in my current home office workplace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. My home office workplace has equipment that allows me to work comfortably and without complaints.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The home office provides me with sufficient working materials and technical aids that I need to carry out my tasks reliably.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Cor.2: Organisation / communication

	to a very large extent	to a large extent	some-what	to a small extent	to a very small extent
1. The conversation / communication with my colleagues and supervisors is currently working well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. At present I'm receiving the support I need from my colleagues and supervisors to cope with current challenges.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The emotional support I receive from my colleagues and supervisors is currently sufficient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The working atmosphere in my team/department is currently good despite the Corona crisis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Cronbach's alpha = 0.88

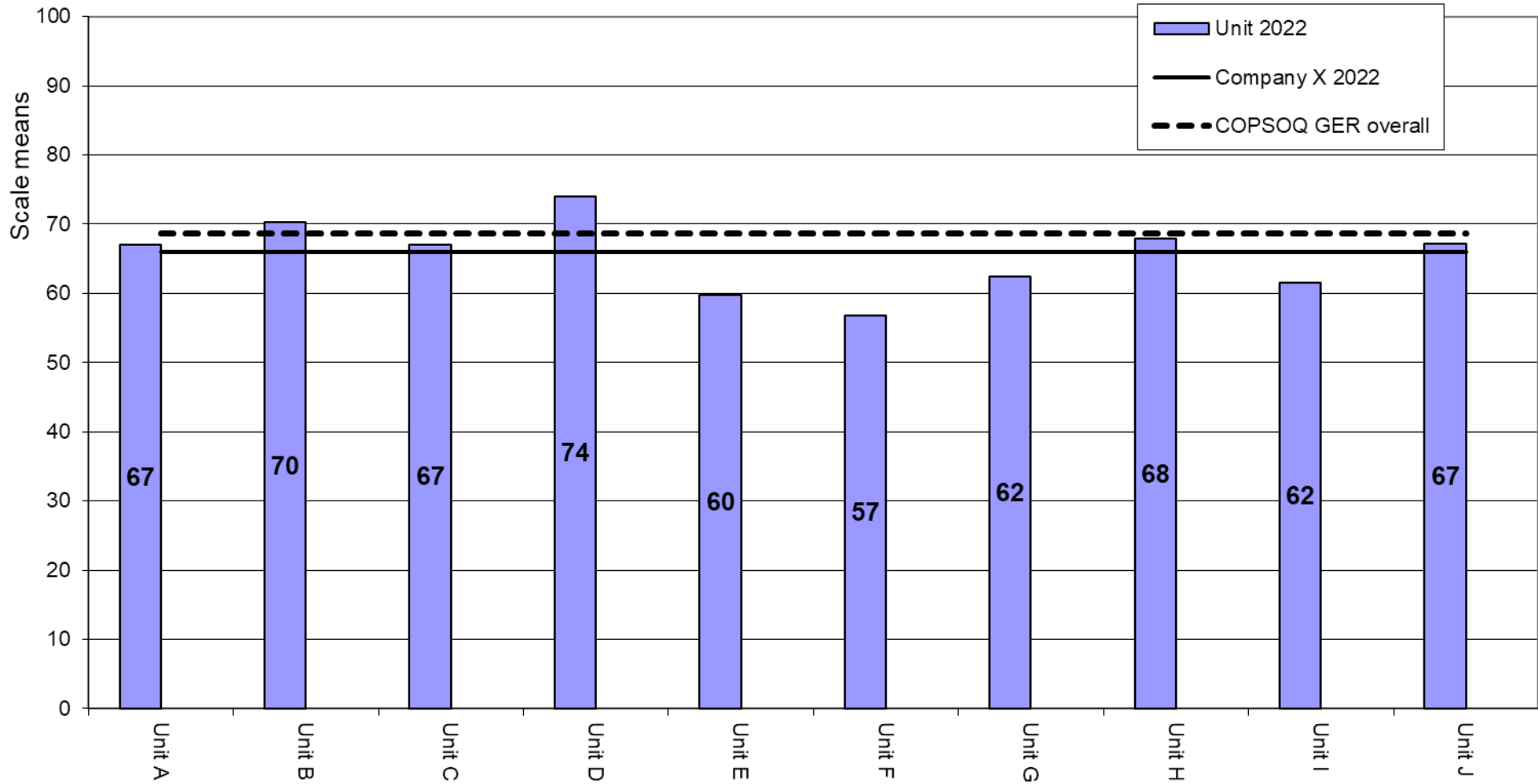
Cor.3: Operational measures and overall evaluation

	to a very large extent	to a large extent	some-what	to a small extent	to a very small extent
1. I feel well informed by my company about the planned and implemented corporate measures regarding the corona crisis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The protective measures taken in our company with regard to the corona virus make me feel well protected at my current workplace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I consider the measures implemented or planned in our company with regard to the corona virus to be exaggerated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I am afraid that I will take the corona virus home from work and thus endanger my health and this of my private environment (family, friends).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. At the moment I am much more worried about my job than in the months before the corona crisis broke out.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Crobachs alpha = 0.57

COVID-19: organisation / kommunikation (high = pos.)



Companies tended to be satisfied with our offer. They...

- noticed that we were up to date
- found the questions to be the important ones (e.g. protection measures)
- got results to work with (internal comparison).

Critical reflexion:

- scale construction not perfect (Cronbach's alpha i.e. mix of content, analysis of scale on general opinion / measures not intuitive)
- reference values just drawn from sample of surveys where the module was integrated.

► Business had gone on, thus **mission (so far) accomplished.**

Lindner, Alexandra; Lincke, Hans-Joachim; Vomstein, Martin; Nolle, Inga; Häberle, Nicola; Haug, Ariane & Nübling, Matthias (2021). Gefährdungsbeurteilung psychischer Belastungen in der Pandemie - Analysen mit dem Covid-19-Zusatzmodul des COPSOQ. In U. Stößel, G. Reschauer & M. Michaelis (Hrsg.), Arbeitsmedizin im Gesundheitsdienst (Bd. 34) (S. 182–200). Edition FFAS.

Häberle, Nicola; Lindner, Alexandra; Vomstein, Martin; Nolle, Inga; Haug, Ariane; Nübling, Matthias & Lincke, Hans-Joachim (2022). Die Bewertung betrieblicher Maßnahmen im COVID-19-Modul des COPSOQ. Public Health Forum, 30(2), 95–100. <https://doi.org/10.1515/pubhef-2022-0015>

The overall demand for the module cannot not be calculated yet as a) the data mangement is not yet finished and b) the use of module was also voluntary / not in any case offered.

About 90,000 participants in about 170 surveys have answered the questions.

But...

Sometimes, e.g. questions about the fear of infection or about protection measures seemed in- / decreasingly important (e.g. different measures in different phases of pandemic, risk of infection).

Growing weariness of COVID-19-related subjects since 2022.

► Assumption: If something might be useful of the module in the post-pandemic time, this will be home office / online communication.

Of course, home office had existed before the pandemic.

Therefore, the challange was a) to develop methodologically „good questions“ and make best out of b) what had already been established.

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HO.1: What percentage of your working hours do you currently work from home?

No work from home (continue with question HO.5)	1-20%	21-40%	41-60%	61-80%	81-100%
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HO.2: Ergonomics and equipment at home.*ex-COVID-19 items*

	to a very high extent	to a high extent	in part	to a small extent	to a very small extent
1. I can work in a concentrated manner at my work station.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. My work station has equipment that allows me to work comfortably and without discomfort.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I have sufficient work equipment and the technical aids at my disposal that I need to reliably complete my tasks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I manage to keep my working hours without additional overtime.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. It is possible for me to complete my work tasks in good quality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Scale: Ergonomics and equipment, alpha = 0.74

ex-COVID-19 scale items

HO.3: Communication and interaction when working from home.

	to a very high extent	to a high extent	in part	to a small extent	to a very small extent	do not have a manager/ colleagues
1. Interaction/communication with my colleagues works well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Interaction/communication with my managers works well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HO.4: Satisfaction with working from home.

	very satisfied	satisfied	partly	dis-satisfied	very dissatisfied
1. How satisfied are you with working from home?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HO.5: What proportion of your working time would you like to work from home if you could choose freely?

No work from home	1-20%	21-40%	41-60%	61-80%	81-100%
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Communication and exchange, alpha = 0.74

	Home office - ergonomics and equipment	Home office - communication and exchange	Home-Office - Zufriedenheit (hoch=pos.)
Quantitative Demands	-0,311	-0,157	-0,057
Emotional Demands	-0,196	-0,137	-0,075
Hiding Emotions	-0,204	-0,219	-0,089
Work Privacy Conflicts	-0,363	-0,262	-0,144
Dissolution	-0,261	-0,092	-0,101
Influence at Work	0,123	0,162	0,030
Degrees of Freedom (Breaks / Holidays)	0,226	0,206	0,093
Possibilities for Development	0,098	0,228	0,072
Meaning of Work	0,120	0,261	0,110
Commitment to Workplace	0,152	0,324	0,106
Predictability of Work	0,255	0,356	0,114
Role Clarity	0,220	0,337	0,136
Role Conflicts	-0,251	-0,284	-0,111
Quality of Leadership	0,242	0,474	0,129
Support at Work	0,266	0,500	0,161
Feedback	0,093	0,306	0,071
Quantity of Social Relations	0,113	0,233	0,058
Sense of Community	0,187	0,344	0,131
Unfair Treatment	-0,153	-0,258	-0,078
Trust and Justice	0,243	0,400	0,135
Recognition	0,174	0,339	0,090
Work Environment / Phys. Demands	-0,234	-0,119	-0,128
Job Insecurity	-0,129	-0,116	-0,070
Insecurity over Working Conditions	-0,151	-0,154	-0,004
Intention to leave Profession / Job	-0,224	-0,295	-0,147

	Home office - ergonomics and equipment	Home office - communication and exchange	Home-Office - Zufriedenheit (hoch=pos.)
Job Satisfaction	0,327	0,469	0,197
Work Engagement	0,166	0,307	0,109
General Health	0,223	0,192	0,102
Burnout Symptoms	-0,291	-0,238	-0,130
Presenteeism	-0,239	-0,146	-0,036
Inability to Relax	-0,224	-0,171	-0,105

► Ergonomics and equipment correlate mainly with DEMANDS

► Communication and exchange with SOCIAL RELATIONS

grey if Pearson's $r \geq |0.25|$

COVID-19 / Home office questions	Occupations ISCO08_1								
	Managers (ncov = 2512 / nhom = 182)			Professionals (ncov = 31381 / nhom = 964)			Technicians / assoc. professionals (ncov = 7957 / nhom = 346)		
	means hom	difference of means	Cohen's d	means hom	difference of means	Cohen's d	means hom	difference of means	Cohen's d
cor1_1. I can work in a concentrated manner in my current home office workplace.	83.7	2.1	0.10	79.8	12.6	0.49	80.7	1.0	0.05
cor1_2. My home office workplace has equipment that allows me to work comfortably and without complaints.	77.1	6.3	0.23	73.9	9.3	0.34	71.4	2.6	0.09
cor1_3. The home office provides me with sufficient working materials and technical aids that I need to carry out my tasks reliably.	80.2	5.9	0.24	77.5	13.5	0.48	76.1	4.9	0.19
cor2_1. The conversation / communication with my colleagues and supervisors is currently working well (Home-Office). / SCALE: Home office - communication and exchange	76.7	2.4	0.13	75.3	7.8	0.36	77.1	5.3	0.26

Cohen's d: > 0.2 small; > 0.5 middle; > 0.8 strong effect

- ▶ Managers: high ratings
- ▶ Professionals: clear improvements
- ▶ Technicians / associate professionals: few improvements

HO.1. What percentage of your working hours do you currently work from home? (n = 5933)

RESULT: 39.2

HO.5. What proportion of your working time would you like to work from home if you could choose freely? (n = 5272)

RESULT: 47.8

Korrelationen

		HO.1. What percentage of your working hours do you currently work from home?	HO.5. What proportion of your working time would you like to work from home if you could choose freely?
These, who are working in home office.			
	They just can't get enough?		
Home office - satisfaction	Pearson-Korrelation	,235	,471
	Sig. (2-seitig)	,000	,000
	N	4882	4314

The results are all preliminary, but we've tried to make best out of the situation and designed a new module.

How about you?

What were / are your experiences?

How did / does the pandemic influence your research?

Thank you for your attention!

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