

Appendices for the article: ‘Effects of a participatory organisational, core work task focused workplace intervention on employees’ primary health care consultations: secondary analysis of a cluster RCT’

Appendix 1: Content of the intervention

Appendix 2: Intervention effect on primary health care consultations while taking degree of implementation into account

Appendix 1: Content of the intervention

The intervention was designed as an open framework with no content requirements regarding changing specific elements of the organisation of work. There were, however, specific requirements to participate in generic invention activities common for all intervention workplaces and to develop and implement workplace specific intervention activities focusing on core job tasks.

Counted from the date when the pre-schools were informed about group allocation (June 2011) until completion of the implementation of the intervention (June 2013), the intervention lasted 25 months.

The intervention was a participatory intervention aiming to improve the working environment by focusing on the core task at work. Participants' participation in the development and implementation of workplace specific intervention activities was pivotal in this intervention. At each intervention pre-school, the pedagogical leader and two employee representatives, the shop steward and the health and safety representative, formed a steering group that managed the intervention while involving all employees in the pre-school.

A working environment consultant was assigned to each pre-school for the full implementation period (June 2011 to June 2013). The steering group in each intervention pre-school received implementation support from the professional working environment consultant for the full implementation period.

The intervention consisted of intervention activities that all steering groups participated in (from September 2011 to March 2013), i.e. seminars and workshops on how to develop and implement intervention activities tailored to their own workplace using a participatory approach, change management training, workplace culture and tools to evaluate changes in the workplace. Based on the seminars and workshops and consultants' implementation support, the steering groups developed and implemented intervention activities tailored to their own workplace involving all employees.

The intervention followed a structured and step-wise approach. From September 2010 to September 2011, the intervention project leader team planned and coordinated the intervention study. For five months from September 2011, workplace specific intervention activities were developed by the steering groups with the participation of all employees. When developing workplace specific intervention activities steering group members and employees were asked to ensure improvement of performance of core job tasks by improving performance of central job tasks and procedures. From February 2012 to June 2013, the pre-schools implemented the workplace specific intervention activities. Finally, the pre-schools conducted a self-evaluation between March and June 2013, and the implementation support provided by the consultants ended by the end of June 2013.

This description of the intervention content has been extracted and slightly modified from the PhD thesis of the first author (1) and has also appeared in the supplementary material of a previous article (2).

References

1. Framke E. Effect and process evaluation of a participatory organizational intervention focusing on core job tasks. PhD thesis. Aalborg University Copenhagen. Faculty of Engineering and Science. Center for Industrial Production; 2016. Available at: [http://vbn.aau.dk/da/publications-phd-technicalnaturalsciences/effect-and-process-evaluation-of-a-participatory-organizational-intervention-focusing-on-core-job-tasks\(68ce55aa-b1ba-4dd3-adaa-2dcb8c847238\).html](http://vbn.aau.dk/da/publications-phd-technicalnaturalsciences/effect-and-process-evaluation-of-a-participatory-organizational-intervention-focusing-on-core-job-tasks(68ce55aa-b1ba-4dd3-adaa-2dcb8c847238).html)
2. Framke E, Sørensen OH, Pedersen J, Rugulies R. Can illegitimate job tasks be reduced by a participatory organizational-level workplace intervention? Results of a cluster randomized controlled trial in Danish pre-schools. *Scand J Work Environ Health*. 2018(2):219-23.

Appendix 2: Intervention effect on primary health care consultations while taking degree of implementation into account

e-Table 1a: Rate ratios (RR) for comparing rates of all consultations (allowing recurrent events) in the intervention group (high/medium degree of implementation) with rates in the control group during 31 months of follow-up

	Consultations per person-year (SD)	Crude		Model 1		Model 2	
		RR	95% CI	RR	95% CI	RR	95% CI
Intervention group ^a	10.3 (12.3)	0.90	0.85 - 0.95	0.90	0.86 - 0.95	0.91	0.87 - 0.96
			p=<0.01		p=<0.01		p=<0.01
Control group ^b	11.6 (12.8)	1	reference	1	reference	1	reference

Model 1: Adjusted for sex and age (continuous); Model 2: Further adjusted for job group (pedagogical leader, nursery nurse, nursery nurse assistant, other job group), workplace type (integrated, day care, kindergarten), workplace size (continuous) and level of all consultations during the 6 months preceding the intervention (continuous). All models accounted for repeated measurements of each of the participants and further that employees were nested within workplaces. ^a 15,076 consultations during 17,426 person-months of observations, ^b 19,457 consultations during 20,079 person-months of observations.

e-Table 1b: Rate ratios (RR) for comparing rates of all consultations (allowing recurrent events) in the intervention group (low degree of implementation) with rates in the control group during 31 months of follow-up

	Consultations per person-year (SD)	Crude		Model 1		Model 2	
		RR	95% CI	RR	95% CI	RR	95% CI
		Intervention group ^a	12.0 (14.2)	1.02	0.96 - 1.09	1.04	0.98 - 1.10
			p=0.49		p=0.20		p=0.15
Control group ^b	11.6 (12.8)	1	reference	1	reference	1	reference

Model 1: Adjusted for sex and age (continuous); Model 2: Further adjusted for job group (pedagogical leader, nursery nurse, nursery nurse assistant, other job group), workplace type (integrated, day care, kindergarten), workplace size (continuous) and level of all consultations during the 6 months preceding the intervention (continuous). All models accounted for repeated measurements of each of the participants and further that employees were nested within workplaces. ^a 11,553 consultations during 11,597 person-months of observations, ^b 19,457 consultations during 20,079 person-months of observations.

e-Table 2a: Rate ratios (RR) for comparing rates of GP consultations (allowing recurrent events) in the intervention group (high/medium degree of implementation) with rates in the control group during 31 months of follow-up

	GP consultations per person-year (SD)	Crude		Model 1		Model 2	
		RR	95% CI	RR	95% CI	RR	95% CI
Intervention group ^a	7.1 (8.3)	0.89	0.84 - 0.94	0.88	0.84 - 0.93	0.91	0.87 - 0.96
			p=<0.01		p=<0.01		p=<0.01
Control group ^b	8.2 (9.1)	1	reference	1	reference	1	reference

Model 1: Adjusted for sex and age (continuous); Model 2: Further adjusted for job group (pedagogical leader, nursery nurse, nursery nurse assistant, other job group), workplace type (integrated, day care, kindergarten), workplace size (continuous) and level of GP consultations during the 6 months preceding the intervention (continuous). All models accounted for repeated measurements of each of the participants and further that employees were nested within workplaces. ^a 10,331 consultations during 17,426 person-months of observations, ^b 13,613 consultations during 20,079 person-months of observations.

e-Table 2b: Rate ratios (RR) for comparing rates of GP consultations (allowing recurrent events) in the intervention group (low degree of implementation) with rates in the control group during 31 months of follow-up

	GP consultations per person-year (SD)	Crude		Model 1		Model 2	
		RR	95% CI	RR	95% CI	RR	95% CI
Intervention group ^a	7.9 (9.2)	-*		0.98	0.92 - 1.04	0.98	0.93 - 1.04
					p=0.56		p=0.58
Control group ^b	8.2 (9.1)	1	reference	1	reference	1	reference

Model 1: Adjusted for sex and age (continuous); Model 2: Further adjusted for job group (pedagogical leader, nursery nurse, nursery nurse assistant, other job group), workplace type (integrated, day care, kindergarten), workplace size (continuous) and level of GP consultations during the 6 months preceding the intervention (continuous). All models accounted for repeated measurements of each of the participants and further that employees were nested within workplaces. ^a 7,661 consultations during 11,597 person-months of observations, ^b 13,613 consultations during 20,079 person-months of observations. *Did not converge.