Psychometric validation of the Danish translation of the Measure of Job Satisfaction (MJS) for pharmacy staff

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Background & aim

- The Measure of Job Satisfaction (MJS) is a validated questionnaire originally developed for nurses [1].
- It comprises 44 items, forming seven subscales: personal satisfaction, satisfaction with workload, professional support, training, payment, career prospects, and performed standards of care. The final item pertains to general job satisfaction.
- Participants rate their opinions on a scale from 1 to 5, with higher scores indicating greater satisfaction.
- The MJS questionnaire has been translated into Danish, adapted for pharmacy staff, and piloted in Danish community pharmacies [2].

- **This study aimed to psychometrically validate the Danish translation of the MJS for pharmacy staff.**

Methods

- The survey included demographic and profession-related questions alongside the Danish MJS.
- Links to the survey were distributed to Danish community and hospital pharmacies' institutional emails and selected Facebook groups using the online survey system SurveyXact.
- Data collection lasted during February and March 2024.
- Data with complete entries were analyzed.
- The factor structure was assessed through confirmatory factor analysis (CFA) using the IBM SPSS AMOS package version 29.
- Internal consistency reliability was evaluated by calculating Cronbach's alpha using the IBM Statistical Package of Social Sciences (SPSS) version 29.

Participants

From a total of 695 individuals who opened the link, 500 had valid entries and were included in the analysis (Table 1); 22 were not employed at a pharmacy or did not specify their workplace, 15 did not provide demographic information, and 138 omitted at least one response to the MJS questionnaire

Table 1. Study sample characteristics, N=500

	N	%
Gender		
Women	443	69%
Men	63	11%
Other	1	0%
Age		
Under 25	20	4 %
25 – 34	165	33 %
35 – 44	134	27 %
45 – 54	95	19 %
55 – 64	71	14%
65 and over	15	3 %
Profession		
Pharmacy technician	265	53%
Pharmacist	204	41%
Pharmacy technician student	28	6%
Pharmacy student	3	1%
Setting		
Community pharmacy	407	81%
Hospital pharmacy	86	17%
Both	7	1%
Region		
Capital Region	125	25%
Central Denmark	129	26%
North Denmark	54	11%
Southern Denmark	113	23%
Region Zealand	70	14%
Several	2	0%
Greenland or Faroe Islands	1	0%
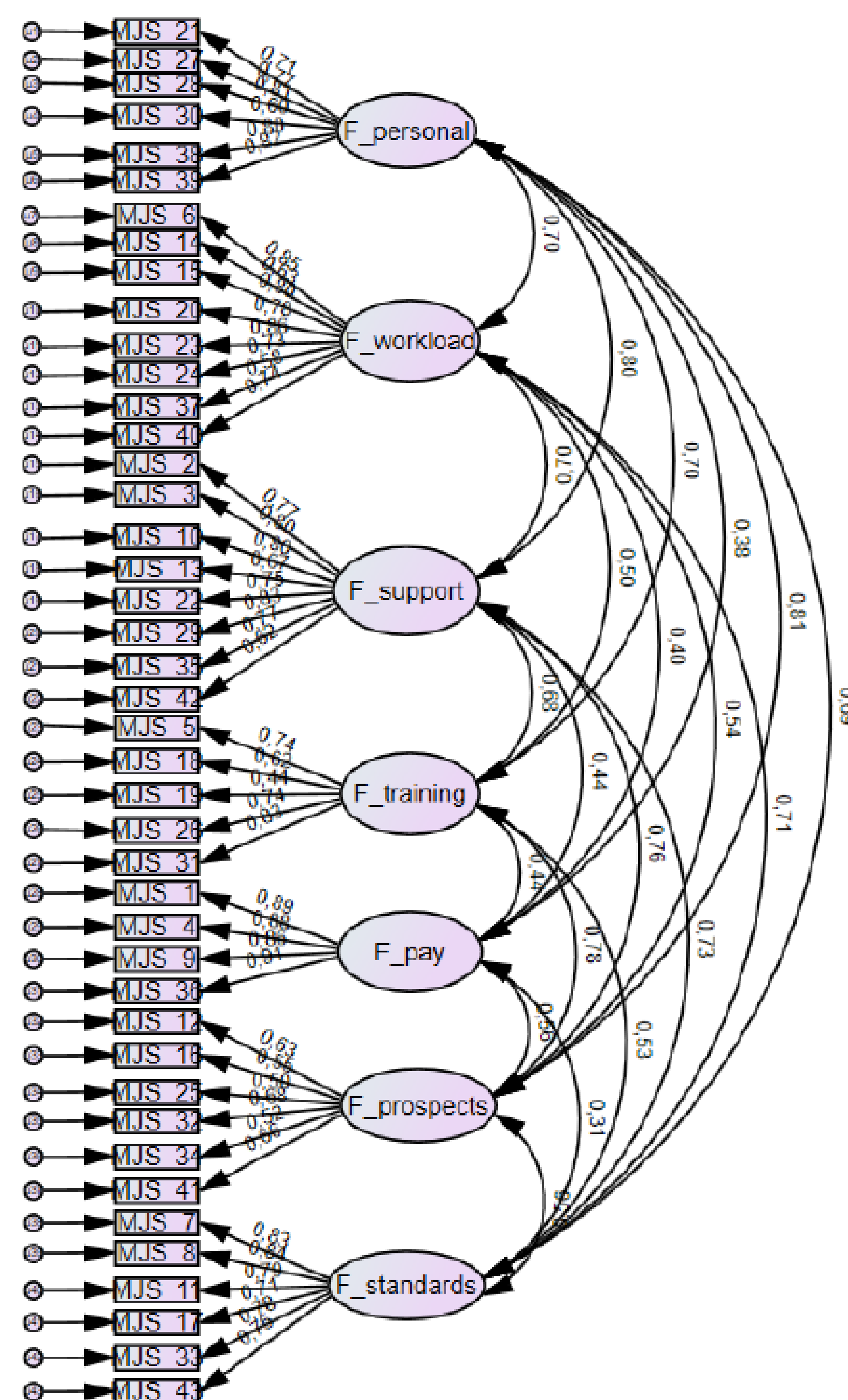
Figure 1. CFA results

	p-value	GFI	AGFI	NFI	TLI	CFI	RMSEA	RMR
Danish MJS scale	0.001	0.766	0.736	0.805	0.838	0.982	0.073	0.087
Good fit [3]	<0.05	≥0.95	≥0.90	≥0.95	≥0.95	≥0.90	<0.08	<0.08

GFI = Goodness of Fit, AGFI = Adjusted goodness of Fit, NFI = Normed Fit Index, TLI = Tucker Lewis Index, CFI = Comparative Fit Index, RMSEA = Root Mean Square Error of Approximation, RMR = Root Mean Square Residual

Table 3. Internal consistency reliability Cronbach α for the Danish MJS scale and subscales

	MJS scale	Personal satisfaction	Satisfaction with workload	Satisfaction with professional support	Satisfaction with training	Satisfaction with pay	Satisfaction with prospects	Satisfaction with standards of care
Cronbach α	0.962	0.883	0.906	0.912	0.793	0.935	0.764	0.905
N of items	43	6	8	8	5	4	6	6

Results

- CFA revealed an acceptable seven-factor construct (GFI = 0.766, AGFI = 0.736, NFI = 0.805, TLI = 0.838, CFI = 0.982, RMSEA = 0.073, RMR = 0.087, p < 0.001) (Table 2).
- Items showed fair to strong loadings onto their respective factors: standardized regression weight values ranged from 0.441 to 0.860 (Figure 1).
- Correlations between the seven factors ranged from 0.360 to 0.810 (Figure 1).
- The internal consistency reliability Cronbach's alpha for the entire scale was 0.962, and for the subscales it ranged from 0.764 to 0.935 (Table 3).

Conclusions

- The Danish translation of the MJS exhibited an acceptable seven-factor structure with high internal consistency for the overall scale and each subscale.
- It can serve as a tool for assessing job satisfaction among pharmacy staff in Denmark facilitating international comparisons of job satisfaction among pharmacy and other healthcare staff.

References

1.Traynor M, Wade B. J Adv Nurs. 1993. **2.**Husted GR, Rossing CV, Jacobsen R, Hedegaard U, Kaae S, Almarsdóttir AB, et al. Pharm Edu. 2023. **3.**Kline R. Principles and Practice of Structural Equation Modeling. The Guilford Press. 2011.