**Part 0a: Significant between-area differences in perceptions on PHC functions** *(won’t be included in SEM)*

Health\_Center\_2 (less perceived need in major cities)



Health\_Center\_6 (less perceived need in major cities)



Health\_Center\_7 (more perceived need in medically underserved areas)



**Part 0b: Perceived need of transforming Public Health Centers into Community Health Centers focused only on disease prevention & health promotion services**



There is no significant difference between areas. It seems like PHC workers all across Taiwan, regardless of area, feel inclined to support a functional transformation of PHCs.

* If area is not the main determining predictor, then what factors influence this perception?

**Part 1: Exploratory Factor Analysis**

4 hypothesized latent factors:

test\_fa <- df[, c("fatigue\_01", "fatigue\_02", "fatigue\_03", "fatigue\_04","fatigue\_05", "Job\_Burnout", "KPI\_Stress", # stress-related

'Responsibility\_Clarity', 'Workload\_Reasonable', 'Authority\_Understanding', 'Opinion\_Expression', 'cowork\_help',

'boss\_flex', 'talk\_boss', # working environment

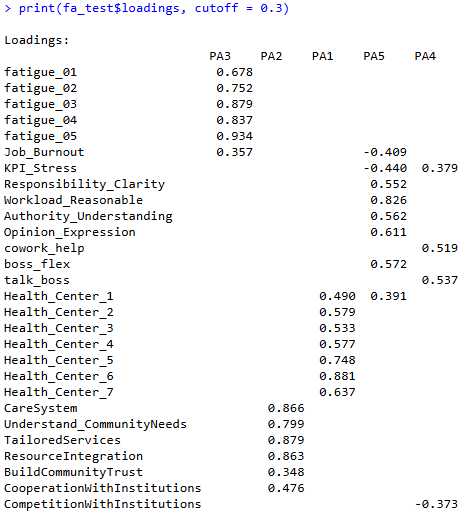
'Health\_Center\_1', 'Health\_Center\_2', 'Health\_Center\_3', 'Health\_Center\_4', 'Health\_Center\_5', 'Health\_Center\_6', 'Health\_Center\_7', # PHC functions

"CareSystem", "Understand\_CommunityNeeds", "TailoredServices", "ResourceIntegration", "BuildCommunityTrust",

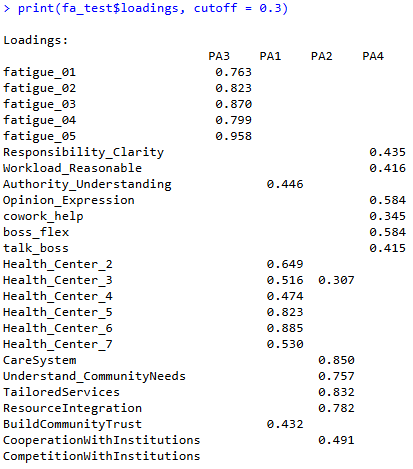
"CooperationWithInstitutions", "CompetitionWithInstitutions" # external relations

)]

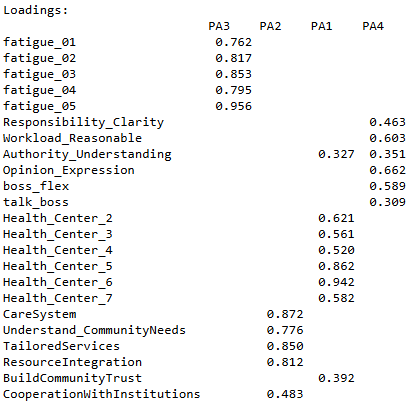
5 levels were suggested in the first screening:



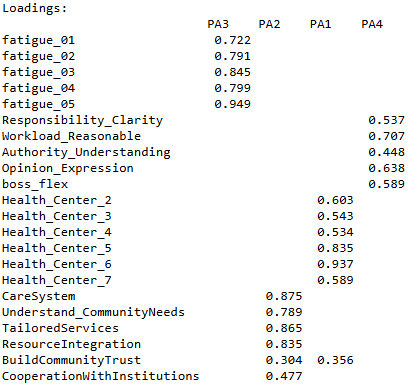
Remove variables that load to >1 factors (KPI\_Stress, Job\_Burnout, Health\_Center\_1). 4 levels were suggested.



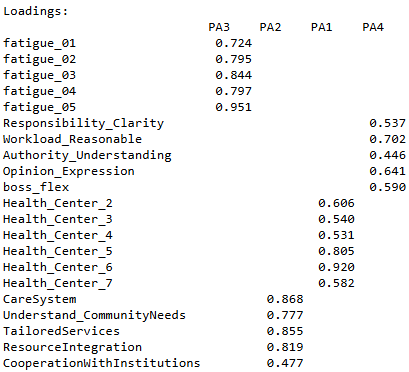
Remove variables that don't load to any factor (CompetitionWithInstitutions and later cowork\_help)



Remove the variable with the lowest loading (talk\_boss)



Remove the variable that load to >1 factors (BuildCommunityTrust)



* Cleaned. We can use these latent factors to calculate alphas.

**Alphas**

|  |  |  |  |
| --- | --- | --- | --- |
| **Latent factor** | **Raw alpha** | **Recommendation** | **New alpha** |
| Fatigue | 0.9067 |  |  |
| Working Environment | 0.7125 | Drop boss\_flex | 0.7396 |
| PHC Functions | 0.8309 |  |  |
| Community Participation | 0.8580 | Drop CooperationWithInstitutions | 0.8883 |
| All | 0.8718 (95% CI: 0.8225-0.8993) | | |

**Part 2: Confirmatory Factor Analysis**

cfa\_model <- '

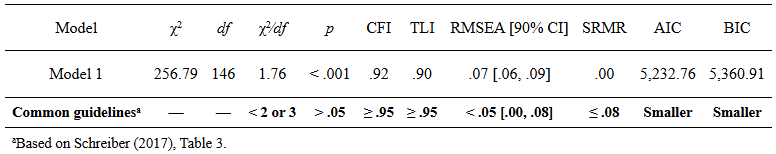
Working\_Environment =~ Responsibility\_Clarity + Workload\_Reasonable + Authority\_Understanding + Opinion\_Expression

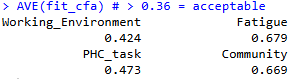
Fatigue =~ fatigue\_01 + fatigue\_02 + fatigue\_03 + fatigue\_04 + fatigue\_05

PHC\_task =~ Health\_Center\_2 + Health\_Center\_3 + Health\_Center\_4 + Health\_Center\_5 + Health\_Center\_6 + Health\_Center\_7

Community =~ Understand\_CommunityNeeds + CareSystem + TailoredServices + ResourceIntegration

'





* Goodness of fit indicators and AVEs all look good. Proceed to SEM.

**Part 3: Structural Equation Modeling**

*Earlier steps are not included for conciseness. See R code for the full testing process.*

sem\_test4 <- '

Working\_Environment =~ Responsibility\_Clarity + Workload\_Reasonable + Authority\_Understanding + Opinion\_Expression

Fatigue =~ fatigue\_01 + fatigue\_02 + fatigue\_03 + fatigue\_04 + fatigue\_05

PHC\_task =~ Health\_Center\_2 + Health\_Center\_3 + Health\_Center\_4 + Health\_Center\_5 + Health\_Center\_6 + Health\_Center\_7

Community =~ Understand\_CommunityNeeds + CareSystem + TailoredServices + ResourceIntegration

Fatigue ~ Working\_Environment

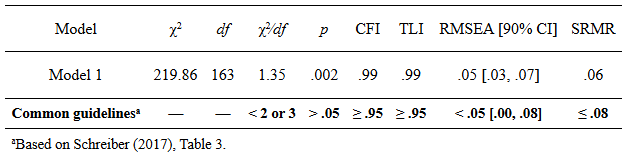
PHC\_task ~ Working\_Environment + Fatigue

TransformToHealthCenter ~ PHC\_task + Community

PHC\_task ~~ Community

Community ~~ Fatigue

'



*(may need to recheck, nice\_fit fetches standard values, but we might want to refer to the scaled values 🡪 for discussion)*

