



Effects of individual justice trajectories on self-rated health: results from the SLOSH study

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Introduction

Procedural justice is commonly defined as the perceived fairness of the organizational processes and procedures that lead to decision outcomes. Associations between procedural justice and minor psychiatric disorders, long sickness absence spells and poor self-rated health have been reported. However, the understanding of how changes in procedural justice affect health is still very limited.

Aim

The aim of the study was to a) examine the trajectories of individuals' self-rated health over time and b) study whether the health trajectories are related to developments in procedural justice perceptions.

Data and Methods

The study population included participants of the Swedish Longitudinal Occupational Survey of Health (SLOSH) study, a longitudinal cohort survey (n=40,877). Data has been collected by mail-out questionnaires every second year with start in 2006 (i.e. 2006, 2008, 2010, 2012, and 2014). Here, 2008 constitutes the base line.

The outcome was self-rated health, "How do you perceive your health in general?" with five response alternatives.

Procedural justice perceptions were measured by a 7-item scale with responses given on a 5-point scale. A grand mean centered **average-over-time justice** measure for each person was obtained to reflect procedural justice perceived over the years. **Change in procedural justice** was constructed by subtracting the 2008 justice level for each individual from their justice level for the following years. This variable is centered within individuals on their baseline value.

Covariates were sex, age, and education. Individual growth models within a multilevel framework were employed to answer the research questions.

Results

Individual and Mean Trajectories

60% of the total variation in self-rated health is attributable to differences between individuals and about 10% of the within-individuals variation in self-rated health is explained by change over time. Mean self-rated health declined slightly over time, from 4.09 in 2008 to 3.99 in 2014 with an average rate of -0.03 for every two years of study.

Justice Dynamics and Health Trajectories

Results indicate that individuals with consistently higher procedural justice have consistently higher self-rated health. Specifying procedural justice as biennial change suggests that health improved as procedural justice increased relative to baseline level of 2008 (at any given time point), and vice versa.

Discussion

As seen in earlier studies we see a slight deterioration in self-rated health over time. Also inter-individual differences are observed, i.e., some people experience a decline in their self-rated health, whereas others perceive stability or an increase in self-rated health. Further, persons who experience high procedural justice over the years report better self-rated health than those with low levels of procedural justice. At the

within-individual level, changes towards better procedural justice are related to improvements in self-rated health.

Conclusion

We conclude that improvements towards increased procedural justice can be a possible way to increase employees' self-rated health.

Table 1

Variance components of the 4 models (standard errors given in parentheses).

	Unconditional Means Model (Model 1)	Unconditional Growth Model (Model 2)	Conditional Growth Model Controlling for between-individual covariates (Model 3)	Conditional Growth Model controlling for within-individuals covariates (Model 4)
Random Effect				
Initial Level (Intercept)	0.354 (0.009)***	0.366(0.012)***	0.336 (0.011)***	0.336 (0.011)***
Linear change (Slope)		0.016(0.002)***	0.016(0.002)***	0.015 (0.002) ***
Within-Person Residual	0.271 (0.003) ***	0.244(0.004)***	0.243 (0.004)***	0.238 (0.004)***
Model Summary				
Deviance Statistic	35624.9	35429.1	34510.1	30260.9

*p<0.10; **p<0.05; ***p<0.001

Table 2.

Estimated fixed and random effects of organizational justice in self-rated health using data from SLOSH 2008-2014. Four different models were calculated: Unconditional Means Model (Model 1); Unconditional Linear Growth Model (Model 2); Conditional Linear Growth Models (Models 3 & 4). Standard errors are given in parentheses.

	Unconditional Means Model (Model 1)	Unconditional Growth Model (Model 2)	Conditional Growth Model Controlling for between-individual covariates (Model 3)	Conditional Growth Model controlling for within-individuals covariates (Model 4)
Fixed Effect				
For Initial Level				
Intercept	4.029(0.009)***	4.074 (0.011) ***	3.280(0.049)***	3.124 (0.056)***
Age in 2008			-0.005 (0.001)***	-0.005 (0.001)***
Education			0.049 (0.008)***	0.049 (0.008)***
Female			0.027 (0.022)	0.019 (0.022)
Org Justice			0.029 (0.002)***	0.029 (0.002)***
For Linear Change				
Intercept		-0.030 (0.004)***	-0.035(0.008)***	-0.042(0.009)***
Age in 2008			0.002(0.0004)***	0.001 (0.0005)**
Education			-0.0004 (0.002)	0.001(0.003)
Female			0.008 (0.008)	0.014 (0.008)*
For Change in organizational justice 2008-2014				
Intercept				0.007(0.001)***

*p<0.10; **p<0.05; ***p<0.001