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Occupation Matters! A Multilevel Analysis of Organizational Trust in Professional Bureaucracies in the Healthcare Sector

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ABSTRACT

This study investigates in the healthcare sector how occupation influences the relationship between organizational procedural justice and employees' trust in the supervisor and in the organization. Drawing on the dual hierarchy model in professional bureaucracies, we adopt a multi-level approach and pay close attention to the influence of the occupational group and its immediate organizational context. Our results from five healthcare organizations reveal that the relationship between organizational procedural justice and trust in the organization is mediated by employees' trust in the supervisor for both health professionals and support staff. On the occupational group level, occupation type predicts organizational procedural justice and trust in the organization, but not trust in the supervisor. Based on these findings, we insist that communication between occupation groups deserves more attention for building trust in professional bureaucracies.

KEYWORDS

Multilevel modelling; professional bureaucracies; trust

Introduction

There is widespread agreement among scholars that trust is highly relevant for organizational performance (e.g., Fulmer, 2018; Fulmer & Gelfand, 2012; Nienaber et al., 2015). Overall, trust refers to a psychological state characterized by the willingness to accept vulnerability and positive expectations (Mayer et al., 1995; Rousseau et al., 1998). More specifically, trust in the organization has been defined as a “global evaluation of an organization’s trustworthiness as perceived by the employee” (Zhang et al., 2008). We consider trust particularly relevant for public organizations (Agranoff, 2008; Chen et al., 2015; Kim, 2018) as they require “a more collaborative and facilitative process than one in which heroic leaders march their

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organizations toward some visionary future” (Andrews & Brewer, 2014, p. 207). Thus, we raise awareness for taking into account the context of research (Song et al., 2021) and aim to contribute to gain knowledge about the role of trust in professional bureaucracies from the healthcare sector. Although context has been used to explain anomalous research findings (Johns, 2018), it is often poorly understood (Goodman, 2000; Johns, 2006, 2018). Analyzing the role of the occupational context (i.e., occupation group) in professional bureaucracies, our study applies a multi-level approach of employees’ trust in their supervisors (interpersonal) and trust in the organization (impersonal-institutional) to understand the social embeddedness of employees’ trust perceptions. In our study, we address a very particular context, namely professional bureaucracies in the healthcare sector. The professional workers in professional bureaucracies represent “specialists with comprehensive control over their own work” (Andreasson et al., 2018, p. 25). Typical professional bureaucracies are organizations such as universities or hospitals, where the power of the authority is strongly based on expertise than on top-down steering (Andreasson et al., 2018). We consider the study of organizational trust in the healthcare sector as particularly relevant as prior studies have mostly addressed patients’ trust toward their healthcare professionals (e.g., Calnan & Rowe, 2006; Peters & Bilton, 2018) or the healthcare system in general (Gilson, 2006; Mizrahi et al., 2009; Rose et al., 2004). However, building trust is a key component for performance management also in healthcare organizations and research shows that the focus on trust-building of external stakeholders might even decrease internal trust in public service organizations (Berg, 2005).

For building trust, procedural justice is commonly seen as a suitable mean (Colquitt & Rodell, 2011; O’Brien & Tyler, 2019; Ryu & Hong, 2020; Tantardini & Kroll, 2015). Procedural justice is also considered as a relevant factor for performance (Kim & Beehr, 2020; Konovsky, 2000). In our study, we investigate how organizational procedural justice relates to employees’ trust (Aryee et al., 2002) by taking into account the role of the occupation. Investigating the occupational groups is particularly relevant in professional bureaucracies as two different types of employees prevail in health organizations (Kitchener & Exworthy, 2008; Scott, 1982): health professionals and support staff. This difference might also play a role in differing employees’ attitudinal and performance outcomes (Potipiroon & Rubin, 2018). We build on research by Rubin and colleagues (e.g., Potipiroon & Rubin, 2018; Rubin, 2007, 2011; Rubin & Chiques, 2014), which highlights the role of occupation for procedural justice perceptions in the public sector, and extend it by adding trust in the organization (e.g., Colquitt & Rodell, 2011; Lind, 2018) to our theoretical framework.

To better understand the relevance of trust, we pay attention to two levels of analysis: employees' trust in their supervisors (interpersonal) and trust in the organization (impersonal-institutional). Herewith, we contribute decisively to research following calls by Searle et al. (2018) to investigate trust on different levels of analysis and applying a multi-level approach to understand the context or social embeddedness of employees' trust perceptions in professional bureaucracies. We differentiate between the "occupation type" (such as health professionals or support staff) on the individual level and the "occupation group" defining the immediate social context on the group level of analysis. Finally, by investigating both health professionals and support staff, we distinct ourselves from previous research that focus only on health professionals (e.g., Chen et al., 2015; Holland et al., 2017) and investigate the distinctive role of trust in the immediate supervisor.

Theoretical background

The role of procedural justice for building trust

The concept of trust has drawn extensive attention from scholars and practitioners, with much research focusing on two levels of interest, namely trust in individuals and institutions (for overviews, see Tan & Lim, 2009; Fulmer & Gelfand, 2012; Fulmer & Dirks, 2018; Nienaber et al., 2015). The distinction between trust on the individual level (i.e., trust between coworkers or subordinate and supervisor) and the institutional level (i.e., trust in organizations) is decisive to really understand how trust may be influenced by procedural justice (Fulmer, 2018). Trust on the individual level refers to an individuals' psychological state of being willing to be vulnerable based on positive expectations (Mayer et al., 1995; Rousseau et al., 1998). Whereas trust at the institutional level is defined as "a form of individual or collective action that is constitutively embedded in the institutional environment in which a relationship is placed, building on favorable assumptions about the trustee's future behavior vis-a-vis such conditions" (Bachmann & Inkpen, 2011, p. 284). Therefore, trust in a public organization can be understood as trust that one or more individuals hold(s) toward a particular organization such as a professional bureaucracy (Searle et al., 2011; Schoorman, et al., 2007). The connection between trust and fairness, particularly of procedural justice, has a very long tradition in research (Tyler, 1987, 1990, 1997; Walker et al., 1974). A vast amount of literature shows that procedural justice is an important lever for building trust (e.g., Colquitt & Rodell, 2011; O'Brien & Tyler, 2019; Tantardini & Kroll, 2015).

Procedural justice is defined as fairness of decision-making processes and often encompasses fairness within interpersonal interactions as having voice creates the feeling of being respected (Potipiroon & Rubin, 2018; Rubin,

2007; Rudolph et al., 2021; Thibaut & Walker, 1975; Tyler & Blader, 2000). Procedures are considered just and fair when they are consistent across person and time, unbiased, accurate, representative across sub-groups, and in line with norms of morality (Greenberg, 2017; Leventhal, 1980).

Colquitt and Rodell (2011) present three theoretical bases for explaining the link between procedural justice and trust: the social exchange theory (Blau, 1964; Eisenberger et al., 2019), the fairness heuristic model (Le & Pan, 2021; Proudfoot & Lind, 2015) and the relational model of procedural justice (Blader & Tyler, 2015; Rudolph et al., 2021). While social exchange theory (Blau, 1964) can be understood as an underlying mechanism to explain the norm of reciprocation (Gouldner, 1960) in social relationships, the latter two theories are less general and focus on perceived justice as a signal for the standing in the group (Blader & Tyler, 2009, 2015) or as a basis for cognitive shortcuts (i.e., fairness heuristics) to cope with uncertainty about whether to trust another party (Le & Pan, 2021; Lind, 2018).

Moving beyond the impersonal-institutional level of trust in the organization, we are also interested in the interpersonal level of trust and investigate the role of immediate supervisors. In accordance to the majority of scholars and already highlighted before in this paper, we define trust in one's supervisor as "a psychological state comprising willingness to accept vulnerability based on positive expectations" (Rousseau et al., 1998, p. 1174). The supervisor has been demonstrated to play an important role for the development of trust in organizations (Fulmer & Ostroff, 2017; Zhang et al., 2008). Drawing upon this, we argue that employees' interactions with their direct supervisors are more concrete and thus evaluations of supervisors' trustworthiness are more easily available than organizational trustworthiness. Whitener (1997) postulates that employees' trust in the organization increases when supervisors fulfill organizational obligations and build relational contracts with employees. Because employees consider their supervisor as a representative of their organization and formulate organizational attributions based on interactions with the supervisor (Eisenberger et al., 2010; Shamir & Lapidot, 2003), judgments about organizational procedural justice are often inherently linked to both the supervisor as well as the organization. Kevin Wang et al. (2020) found that trust in supervisors mediates the relationship between procedural justice and compliance or cooperation among Taiwanese police officers. Thus, we hypothesize that organizational procedural justice and trust in an organization is mediated by trust in one's direct supervisor.

H1: Trust in one's supervisor (interpersonal level) mediates the link between organizational procedural justice and trust in the organization (impersonal-institutional level).

Role of occupation type for trust in professional bureaucracies

Professional bureaucracies such as healthcare organizations have very specific characteristics (Andreasson et al., 2018; Finn et al., 2010; Kessler et al., 2015). They usually maintain a looser set of administrative linkages than most other traditional organizations and are typically not organized and governed along bureaucratic lines with clearly defined chains of authority and accountability for all employees. They are made up of a dual hierarchy (Scott, 1982): a bottom-up professional bureaucratic structure for expert labor and a top-down machine bureaucratic structure for support staff (cf., conjoint model of control; Kitchener & Exworthy, 2008). This involves professionalism (substantive rationality) for health professionals and bureaucratic rules (formal rationality) for support staff (Germov, 2005) and is also reflected in how work is organized. *Professionals* (e.g., nurses and physicians in hospitals) are responsible for patient well-being and work relatively independently supporting and monitoring peers' performance. They are organized into individual units that have established unique occupational standards, roles and responsibilities. Only a few administrative mechanisms are in place since health professionals enjoy a high status within the organization, with wide discretion and freedom (Alexander & Young, 2016). However, for *support staff*, who carry out supporting tasks such as administration, maintenance, catering, etc., work processes may be similar to those of most other organizations with clear hierarchical structures (Scott, 1982). Thus, different leadership practices are applied among professional and support staff in healthcare organizations (Currie & Procter, 2005; Scott, 1982). The freedom of action for health professionals is considerable due to their power of expertise, but on the other hand it is constrained by professional standards and norms (Mintzberg, 1980).

Taking the organizational context into account, we test whether occupation affects how perceived organizational procedural justice shapes employees' trust in their organizations. Employees' trust toward the immediate supervisor and toward the organization may be influenced by their perceptions of their occupation. We define context as situational constraints that affect the occurrence and meaning of organizational behavior, which can interact with individual variables such as disposition to affect organizational behavior (Johns, 2006, 2018).

In addition to differing leadership principles, occupational status varies between the two groups. We consider health professionals as the high status group and support staff as the low status group in healthcare organizations (Alexander & Young, 2016; Potipiroon & Rubin, 2018). As outlined above, employees who perceive the policies used in the organization as fair, tend to show higher levels of trust (Lind, 2018). Occupational status, which was assessed by occupation type, has been shown to moderate the effect of

procedural justice (Aquino & Douglas, 2003; Potipiroon & Rubin, 2018). Perceived injustice was shown to lead to stronger reactions from low status employees than from high status employees (Aquino et al., 2004) which might also explain that low status employees such as minorities are more likely to choose to be union members in the federal government (Rubin, 2011). Professional bureaucracies provide a very specific organizational context as supervisors of health professionals have difficulties to take on a more strategic role (Currie & Procter, 2005). High status employees such as health professionals have a higher level of work autonomy than support staff (Alexander & Young, 2016), which might weaken the immediate supervisor's role for shaping trust in the organization and also provide less potential for perceived injustice. Thus, we compare the mediation effect on the individual level between the two types of occupation and hypothesize:

H2: The mediating effect of trust in the supervisor on the relationship between organizational procedural justice and trust in the organization is weaker for health professionals than for support staff.

Role of occupational group for trust in professional bureaucracies

Differences of trust in professional bureaucracies might not only be prevalent on the individual level, but also on the group-level, i.e., employees' immediate social context defined as occupation group. Fulmer and Gelfand (2012, p. 1207) argue that "trust at the individual and dyadic levels is embedded in the social structure of the organization and it in turn perpetuates that social structure." Thus, we aim to take into account the unique social structure of healthcare organizations (Min et al., 2020) resulting from the substantial power differential due to health professionals' extensive body of knowledge, and position inside the organization (e.g., Peters & Bilton, 2018).

Professional bureaucracies "rely on the standardization of skills in its operating core for coordination; jobs are highly specialized but minimally formalized, training is extensive and grouping is on a concurrent functional and market basis, with large-sized operating units, and decentralization is extensive in both the vertical and horizontal dimensions; this structure is typically found in complex but stable environments, with technical systems that are simple and non-regulating" (Mintzberg, 1980, p. 229).

Employees' trust might vary depending on the group's contextual surroundings, including the prevalent values and norms within their occupational group (Shamir & Lapidot, 2003). Next to trust, procedural justice judgments were also found to vary across different organizational groups (Pichler et al., 2016) and research shows that the context of procedural justice is relevant in organizations beyond the individual perceptions of procedural justice (Mossholder et al., 1998). Procedural justice was

considered to be particularly relevant in the public bureaucracy (Cho & Sai, 2013). Thus, it makes sense to analyze whether employees' evaluation of organizational procedural justice, trust in supervisor and trust in the organization varies among the occupation groups. Following the dual hierarchy model in professional bureaucracies, we investigate whether the occupation type helps to understand these differences among organizational groups. Previous literature (e.g., Potipiroon & Rubin, 2018; Rubin, 2007; Rubin & Chiques, 2014) focuses only on the individual level of analysis neglecting the potential influence of group-level effects. We assume that the occupation is decisive in professional bureaucracies also for trust in the organization. A survey in German healthcare organizations (Farin et al., 2002), for example, shows differences with regard to perceived work climate between health professionals and support staff: Support staff was found to be more satisfied with the climate.

Professionals in the healthcare sector are responsible for patients' health and well-being and consider excellence, quality, public service and client welfare as the most important values (Noordegraaf & Burns, 2016). Providing service, caring for patients' well-being, helping others, promoting healing, and making patients stay as comfortable as possible (Karnieli-Miller et al., 2011) are more important for health professionals and may conflict with goals such as cost-effectiveness on which support staff might be more focused on. Thus, it is likely that health professionals have to deal with organizational ambivalence when dealing with market orientation (Bode et al., 2017). However, support staff such as personnel dealing with operations and administration has to secure the organization's financial persistence. Their operating guidelines might be equally applicable to any kind of organization following a perspective of market orientation. Following this, the working conditions for health professionals differ from support staff. Health professionals' work is characterized by a high degree of autonomy and independence (Alexander & Young, 2016). This might reduce their dependency and interaction frequency with their immediate supervisor, impair the transparency of organizational policymaking and prolong the trust-building process due to less strong social cues (De Ridder, 2004). Thus, we assume:

H3: Health professionals have weaker levels of (a) organizational procedural justice, (b) trust in the organization and (c) trust in the supervisor than support staff on the occupational group level.

Method

Sampling and data collection

We collected data in five professional bureaucratic organizations from the healthcare sector (i.e., three hospitals and two rehabilitation clinics) in Austria

and Germany. Following EU statements, the Austrian and German healthcare sector is very similar related to structural and procedural characteristics (e.g., Jakubowski & Busse, 1998). In both countries, hospitals and (rehabilitation) clinics, whether public or private, are financed by a dual system involving coverage of capital costs by the federal states and payment of operating costs by the sickness funds (insurance). Co-payments for hospital services have been increased gradually in recent years. Since the principle of full-cost coverage has been abolished, hospitals can make profits and losses. Thus, all organizations in the healthcare sector have to take care of their performance which is reflected in the workforce. The dual hierarchy model (Scott, 1982) can be identified in all of the five organizations in the healthcare sector. While several bureaucratic structures are in place for support staff, professionals enjoy higher status, more flexibility and fewer restrictions, but are constrained by professional standard and norms (Mintzberg, 1980).

Data collection was conducted with the help of the organizations' HR departments. We invited 2521 employees to participate in the survey study. In total, 710 employees returned the questionnaires resulting in a response rate of 28%. Due to missing values (e.g., no indication of occupation), the analysis below contains data of 616 employees. Around two-thirds of respondents (67%) were employed as health professionals (i.e., medical or nursing staff), whereas the remaining one-third of respondents (33%) were employed as support staff (i.e., operations or administration staff). This relation was consistent across all five organizations (share of support staff ranged from 31.3% to 37.6%). Participants' mean (M) age was 40.7 years with standard deviation (SD) of 10.6 (health professionals: $M=39.8$ years, $SD=10.7$; support staff: $M=42.3$ years, $SD=10.1$), and their average tenure was $M=13.1$ years, with $SD=10.5$ (health professionals: $M=13.2$ years, $SD=10.7$; support staff: $M=12.7$ years, $SD=9.9$). The majority of respondents were female (83.9% overall; health professionals: 86.5%; support staff: 78.6%), but their supervisors were predominantly male (70.7% overall; health professionals: 78.1%; support staff: 55.7%). Finally, most respondents did not have a leadership position themselves (88.6% overall; health professionals: 88.9%; support staff: 88.1%).

Ethical considerations

The study was conducted in accordance with the Helsinki Declaration (WMA, 2019). Participants were informed about the goal and purpose of the study, participation was completely voluntary and anonymous. Participants could refrain from it without any consequences at any time. Anonymity and confidentiality were fully assured at any time. The

Table 1. Measurement Items and Validity Assessment.

Trust in organization: $\alpha = .91$, CR = .88, AVE = .64		SFL
1.	I have trust in [MY ORGANIZATION].	0.87
2.	The goals set by [ORGANIZATION] will be achieved.	0.65
3.	[MY ORGANIZATION] forms a powerful team that meets economic challenges.	0.79
4.	[MY ORGANIZATION] takes care of its employees and will continue to do so.	0.88
Trust in supervisor: $\alpha = .92$, CR = .91, AVE = .73		
1.	My supervisor keeps her/his promises.	0.80
2.	My supervisor makes time when I have a request.	0.75
3.	I can rely on my supervisor.	0.97
4.	I trust my supervisor just as she/he trusts me.	0.89
Perceived procedural justice: $\alpha = .86$, CR = .82, AVE = .61		
1.	Management gives us good reasons for changes that have to be made.	0.75
2.	The rules and procedures are equally fair to everyone at [MY ORGANIZATION].	0.82
3.	[MY ORGANIZATION] follows through on the decisions and promises it makes.	0.77

Note. Shown are English translations of the German items used in the original survey; SFL: standardized factor loading; α : Cronbach alpha; CR: composite reliability; AVE: average variance-extracted.

organizations under study only received aggregated results and did not get access to data sets.

Measures

Items used are based on established scales from the literature (Graeff, 1998; Tyler & Blader, 2000). Original English scales were translated to German and then back-translated by a different person to assure semantic equivalence. Unless indicated otherwise, all items ranged from completely disagree (1) to completely agree (6). Reliability and standardized factor loadings as well as phrasing of items are provided in Table 1.

Trust in the organization

Four items from Graeff's (1998) scale of trust in the organization were used to measure organizational trust as a global belief. A sample item is "I have trust in [MY ORGANIZATION]." The four items showed internal consistency, with a Cronbach's alpha of .91.

Trust in one's supervisor

The interpersonal level of trust was measured with four items from Graeff's (1998) German scale trust in supervisor. A sample item from this scale is "I trust my supervisor just as she/he trusts me." Cronbach's alpha was .92.

Perceived organizational procedural justice

Three items were selected from Tyler and Blader (2000) procedural justice scale to measure perceptions of procedural justice with regard to the organization (e.g., "The rules and procedures are equally fair to everyone at [MY ORGANIZATION]") and Cronbach's alpha was .86.

Occupation

Four overarching *occupation groups* (medical, nursing, operations and administration staff) were identified in the five organizations which resulted in 20 occupational groups in total (= four groups times five organizations). *Occupation type* was coded on the higher level such as health professionals (= 0) representing the medical and nursing staff and support staff (= 1) representing operations and administrative staff. Following Potipiroon and Rubin (2018) this dichotomous variable also defines the status of the employees considering health professionals as high status and support staff as low status employees.

Control variables

We controlled for gender, age, leadership position in the organizational hierarchy, and organization size as these variables have been found to be correlated with trust in one's supervisor and/or trust in the organization (see Andrews, 2017; Gilbert & Tang, 1998; Glaeser et al., 2000). Furthermore, we tested whether the organization type (non-profit hospital vs. private rehab clinic) influences the results (Min et al., 2020).

Measure validation

To assess the validity of our measures, we carried out a series of multi-level confirmatory factor models (ML-CFA) estimated in Mplus version 8 (Muthén & Muthén, 2012) using the robust maximum likelihood method (for further information contact first author). The results showed good model fit for all measurement models. Smaller Bayesian information criterion values for the measurement models estimated with metric invariance compared to the models without invariance indicated cross-level invariance of factor loadings for all scales. Thus, we computed mean scores for all scales in the main analysis.

Results

Descriptive statistics

The intra-class correlation coefficients indicate that the occupational group level accounted for 24.9% of the variance in trust in the organization, 3.4% of the variance in trust in one's supervisor, and 19.3% of the variance in perceived procedural justice. Details and information about the analytic strategy including common method assessment can be obtained from the first author.

Multi-level modelling results

A multi-level path model with two analytic levels (Level 1: employee, Level 2: occupation group) was estimated in Mplus (Muthén & Muthén, 2012), using Bayesian inference.

Trust in supervisor

The direct relationships between procedural justice and trust in the supervisor (unstandardized beta (b) = 0.43, $p < .001$) as well as trust in the supervisor and trust in the organization ($b = 0.12$, $p < .001$) were statistically significant. The indirect effect of perceived procedural justice via trust in supervisor on trust in the organization was also statistically significant ($b = 0.05$, $p < .001$), thereby supporting Hypothesis 1 that the link between procedural justice and trust in the organization is mediated by trust in supervisor. With regard to the control variables, only being a leader predicted trust in the organization ($b = 0.23$, $p = .023$). Employees holding a leadership position trusted their organization more strongly than without leadership position. Model 1 (see Table 2) explained 47.9% of the variance in trust in the organization at the individual level and 8.2% of the variance at the group level.

The role of occupation type

Although the estimates point toward the expected direction and suggest a slightly stronger relationship of the mediation effect among support staff ($b = 0.08$, $p = .004$) than among health professionals ($b = 0.05$, $p = .001$), the statistical test showed no significant difference. For Hypothesis 2, in which differences between occupation types are suggested, we could not find any statistical evidence. For further details see Table 3.

The social embeddedness

On the occupational group level, occupation type was statistically significant for predicting perceived procedural justice ($b = 0.42$, one-tailed $p = .031$), and trust in organization ($b = 0.58$, $p = .022$, Hypothesis 3). For further details see Table 4. Among the group of support staff, organizational procedural justice and trust in the organization is perceived higher than among the group of health professionals. With regard to trust in the supervisor, no group level effects were obtained for occupation type ($b = 0.18$; $p = .143$) as the variance of trust in the supervisor was very low across occupational groups. The models explain 1.6% of the variance of procedural justice at the individual level, 67.3% of the variance at the group level, 0.8% of the variance of trust in supervisor at the individual level, 38.9% of the variance at the group level, 1.7% of the variance of

Table 2. Multi-Level Modeling Results: The Mediating Role of Trust in Supervisor.

Effects	Model 1		
	Est.	SD	Stand.
Fixed effects			
Intercept			
Trust in supervisor	0.56	0.22	
Trust in organization	4.74	0.60	
Mediation model component			
Perceived procedural justice → Trust in supervisor	0.43	0.04	.41
Trust in supervisor → Trust in organization	0.12	0.03	.14
Indirect effect			
Perceived procedural justice → Trust in supervisor → Trust in organization	0.05	0.01	.11
Direct effect controlling for the indirect effect			
Perceived procedural justice → Trust in organization	0.59	0.03	.62
Control variables			
Gender → Trust in supervisor	0.08	0.14	0.06
Gender → Trust in organization	0.00	0.11	0.00
Age → Trust in supervisor	-0.01	0.01	-0.04
Age → Trust in organization	-0.00	0.00	-0.04
Hierarchical position → Trust in supervisor	0.07	0.16	0.06
Hierarchical position → Trust in organization	0.23	0.12	0.20
Organization size → Trust in supervisor	0.00	0.00	-0.00
Organization size → Trust in organization	0.00	0.00	0.00
Organization type → Trust in supervisor	-0.23	0.21	-1.35
Organization type → Trust in organization	0.00	0.00	-0.00
Random effects			
Level 1 – employee			
Trust in supervisor	1.33	0.08	
Trust in organization	0.68	0.04	
Level 2 – group			
Trust in supervisor	0.02	0.03	
Trust in organization	0.47	0.28	
Model summary			
Deviance		9271.49	

Est.: Unstandardized Bayesian posterior median estimate; SD: Standard deviation of the posterior distribution; Stand.: Standardized estimate. *Note.* StdYX standardization (i.e., outcome and predictor variables are standardized) was used for all continuous predictors. StdY standardization (i.e., outcome variable is standardized) was used for the dichotomous predictor *gender*. *Gender* is coded as 0=female and 1=male; *Hierarchical position* is coded as 0=no leadership position, 1=holds leadership position; *Organization type* is coded as 0=hospital, 1=rehab clinics; Statistically significant coefficients at $\alpha = .05$ are shown in bold.

trust in organization at the individual level and 43.4% of the variance at the group level.

Discussion

Our study's objective was to explore the role of occupation for understanding the relationship between procedural justice and trust in the organization in professional bureaucracies in the healthcare sector.

Contribution to research

First, our results on the interpersonal level are in line with previous research showing the positive relationship between procedural justice and organizational trust (e.g. Chen et al., 2015; Colquitt & Rodell, 2011; O'Brien & Tyler, 2019). This study provides further evidence that

Table 3. Multiple-Group Modeling Results: Testing the Mediation Model for Health Professionals and Support Staff Separately.

Effects	Model 2					
	Health professionals			Support staff		
	Est.	SD	Stand.	Est.	SD	Stand.
Fixed effects						
Intercept						
Trust in supervisor	0.59	0.19		0.68	0.21	
Trust in organization	4.53	0.14		5.05	0.17	
Mediation model component						
Perceived procedural justice → Trust in supervisor	0.44	0.05	.42	0.46	0.07	.43
Trust in supervisor → Trust in organization	0.12	0.04	.13	0.18	0.07	.18
Indirect effect						
Perceived procedural justice → Trust in supervisor → Trust in organization	0.05	0.02	.11	0.08	0.03	.13
Direct effect controlling for the indirect effect						
Perceived procedural justice → Trust in organization	0.57	0.04	.60	0.52	0.07	.51
Control variables						
Gender → Trust in supervisor	-0.02	0.15	-0.00	-0.02	0.15	-0.01
Gender → Trust in organization	-0.02	0.11	-0.01	-0.02	0.11	-0.01
Age → Trust in supervisor	-0.01	0.01	-0.04	-0.01	0.01	-0.04
Age → Trust in organization	-0.00	0.00	-0.01	-0.00	0.00	-0.01
Hierarchical position → Trust in supervisor	0.10	0.16	0.03	0.10	0.16	0.03
Hierarchical position → Trust in organization	0.22	0.12	0.06	0.22	0.12	0.06
Organization size → Trust in supervisor	0.00	0.00	-0.05	0.00	0.00	-0.05
Organization size → Trust in organization	0.00	0.00	-0.15	0.00	0.00	-0.14
Organization type → Trust in supervisor	-0.23	0.19	-0.07	-0.23	0.19	-0.07
Organization type → Trust in organization	0.19	0.14	0.06	0.19	0.14	0.06
Residual variances						
Trust in supervisor	1.30	0.10		1.39	0.15	
Trust in organization	0.67	0.05		0.91	0.11	
Model summary						
Deviance						4736.95

Est.: Unstandardized Bayesian posterior median estimate; *SD*: Standard deviation of the posterior distribution; Stand.: Standardized estimate. *Note.* StdYX standardization (i.e., outcome and predictor variables are standardized) was used for all continuous predictors. StdY standardization (i.e., outcome variable is standardized) was used for the dichotomous predictors. *Gender* is coded as 0=female and 1=male; *Hierarchical position* is coded as 0=no leadership position, 1=holds leadership position; *Organization type* is coded as 0=hospital, 1=rehab clinics; Statistically significant coefficients at $\alpha = .05$ are shown in bold.

Table 4. Multi-Level Modeling Results: Investigating Mean Differences in Procedural Justice, Trust in Supervisor, and Trust in Organization Depending on Occupation Type.

Predictor variables	Procedural justice			Trust in supervisor			Trust in organization		
	Est.	SD	Stand.	Est.	SD	Stand.	Est.	SD	Stand.
Fixed effects									
Intercept	3.25	0.40		4.94	0.31		3.71	0.49	
Gender	0.03	0.16	0.01	0.13	0.16	0.04	0.05	0.15	0.02
Age	0.01	0.01	0.10	-0.00	0.01	-0.02	0.00	0.01	0.01
Hierarchical position	0.19	0.16	0.05	0.17	0.17	0.04	0.38	0.16	0.11
Occupation type	0.42	0.23	0.66	0.18	0.18	0.31	0.58	0.28	0.45
Organization size	0.00	0.00	-0.25	0.00	0.00	-0.37	0.00	0.00	-0.19
Organization type	0.66	0.35	0.51	-0.02	0.28	-0.04	0.32	0.43	0.24
Random effects									
Level 1 – employee	1.45	0.09		1.63	0.10		1.29	0.08	
Level 2 – group	0.14	0.13		0.06	0.06		0.25	0.19	
Model summary									
Deviance		5973.06			6130.86			5928.85	

Note. Est.: Unstandardized Bayesian posterior median estimate; *SD*: Standard deviation of the posterior distribution; Stand.: Standardized estimate. StdYX standardization (i.e., outcome and predictor variables are standardized) was used for all continuous predictors. StdY standardization (i.e., outcome variable is standardized) was used for the dichotomous predictors. *Gender* is coded as 0=female and 1=male; *Hierarchical position* is coded as 0=no leadership position, 1=holds leadership position; *Organization type* is coded as 0=hospital, 1=rehab clinics; Statistically significant coefficients at $\alpha = .05$ are shown in bold.

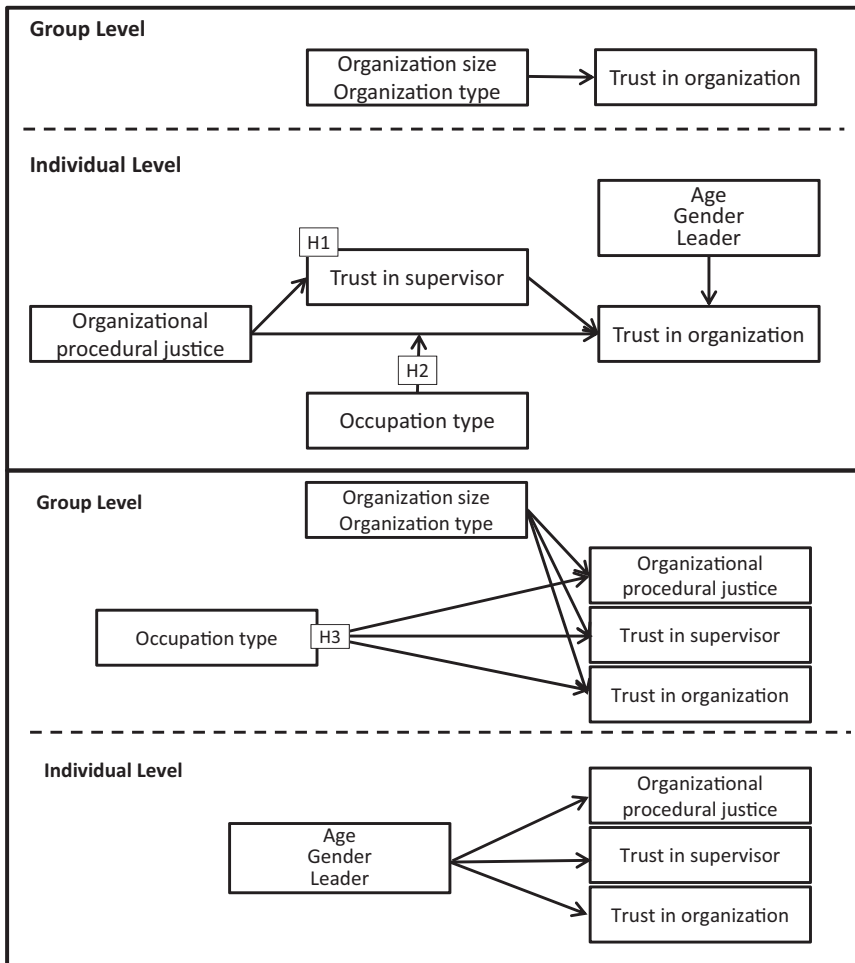


Figure 1. Research model.

procedural justice represents an important lever for building organizational trust which is decisive for performance also in the field of public management (Tantardini & Kroll, 2015). By including the idea of a mediating effect of employees' trust in their direct supervisors, we acknowledge the decisive role of leadership for building trust in an organization (e.g. Colquitt et al., 2002; Cropanzano & Molina, 2015; Naumann & Bennett, 2000; Walumbwa et al., 2017) and are able to extend knowledge on perceived organizational procedural justice and organizational trust in the field of public management in particular in the area of professional bureaucracies. Our results show that employees who perceived their organization as fair hold higher levels of trust in their immediate supervisors and, in turn, higher levels of trust in their organization.

Second, drawing on the dual hierarchy model (Scott, 1982), our study tackles the “double-headed monster” (Drucker, 1980) of healthcare organizations and

compares two groups of employees. Herewith, it pays attention to the complexity of healthcare organizations and particularly studies the role of occupation type in professional bureaucracies which has commonly overlooked in the past (e.g., Andreasson et al., 2018; Chen et al., 2015; Mizrahi et al., 2009). Contrary to our expectations, our results investigating the mediation effect did not differ significantly between health professionals and support staff on the individual level although the effect was slightly weaker for health professionals. The immediate supervisor plays a crucial role for building trust in the organization no matter which group the employee belongs to. Perceptions about organizational justice could be cautiously shaped by the supervisors in order to build trust toward the organization. Thus, this raises the awareness that the role of the supervisor among health professionals must not be overlooked in professional bureaucracies as trust in organizations is also important for performance (Agranoff, 2008; Andrews & Brewer, 2014; Fulmer, 2018; Mizrahi et al., 2009; Oomsels & Bouckaert, 2014).

Third, our results show that occupation type explains the variance of perceived organizational procedural justice and trust in organizations on the occupation group level. However, trust in the supervisor has only low variance on the group level suggesting that the impact of the supervisor does not depend on the immediate social context of the organizations, but rather on the leadership qualities of the immediate supervisor. This is particularly important as our results show that the social context seems to matter after all and groups formed of support staff perceived the organization as more fair and reported more trust in the organization. In professional bureaucracies, particularly in the healthcare sector, middle managers have a difficult role to drive change and implement strategy (Currie & Procter, 2005). Thus, future studies need to be aware of the evident role of supervisors also for health professionals. Despite variations for procedural justice and trust in the organization, trust in the immediate supervisor seems to be similar across occupation groups. Finally, future research needs to find out which group-level aspects are relevant that health professionals consider as less fair than support staff. A qualitative approach drawing on attribution theory (Weiner, 2006) might be particularly fruitful for this endeavor. Procedural justice perceptions are seen as carrier of attributions (Barclay et al., 2005). They also act as information source (Parzefall & Coyle-Shapiro, 2011) and more knowledge on the underlying interpretations of justice in a particular organization sheds further light on this important topic.

Implications for the practice

Our findings also contribute to the practice of public management. Our results demonstrate that the occupation of employees in professional

bureaucracies does not influence the role of supervisors' trust and how employees want to be treated. Supervisors' credibility is positively associated with justice (Ryu & Hong, 2020). Based on our results we argue that regardless of the occupational group, supervisors should focus on organizational procedural justice in order to build trust in the organization. HR practices are generally viewed as reflections of organizational justice principles (Gelens et al., 2014; Haines et al., 2018). But the transparency and the understanding of organizational policies seem to be higher among support staff and therefore it is necessary to invest in the transparency of policies – particularly for health professionals. Research shows that procedural justice can be trained (Greenberg, 2017). Thus, leadership trainings should, therefore, build on the knowledge that trust in the supervisor is equally important for health professionals and support staff.

Although health professionals have high levels of autonomy, which might allow a unique professional identity, leadership development programs do not need to be tailor-made for either health professionals or support staff. Professional bureaucracies can focus their time and effort on instrumentally using joint programs to encourage a critical in-depth reflection of prevalent policies including its underlying norms and values, which define employees' organizational justice judgements and foster managers' understanding of the contextual circumstances. Since health professionals and support staff might consider different aspects to judge organizational justice, the exchange across occupational groups might even be beneficial to raise understanding of the other groups' needs and enable them to focus on the higher unit of the organization.

Limitations

Our study has limitations, which offer avenues for further future research. First, we relied on self-reported data by employees, which may lead to common method bias or cause selection effects. However, as we are primarily interested in investigating psychological processes (Conway & Lance, 2010), we believe that our methodological approach is adequate to understand the effects of organizational procedural justice and trust in organizations.

Further, we collected only data at one point in time and thus, are not able to analyze any dynamical effects. Thus, longitudinal data would be beneficial in the future (Podsakoff et al., 2003) as we have to treat causal interpretations with caution. Fourth, although we were able to show that occupation groups systematically differ regarding trust in the organization, we were not able to test the mediation effects on the group level due to the sample size and thus, missing sufficient statistical power. Our results show

that the immediate social environment in which employees are embedded is relevant and needs to be investigated further in future research. Finally, our sample consists of three public hospitals and two private rehab clinics to enhance knowledge on professional bureaucracies. We controlled for type of organizations and our results showed in line with prior research (Cho & Sai, 2013; Kurland & Egan, 1999) that procedural justice was perceived higher in private organizations than in public organizations. However, trust was not predicted by organization type and also with regard to the relationships no impact of organization type was found.

Conclusion

Using data from five healthcare organizations, our multi-level study shows that the relationship between organizational procedural justice and trust in the organization is mediated by employees' trust in their supervisor. Employees who perceived their organization as fairer had greater trust in their immediate supervisors and, in turn, greater trust in their organization. Furthermore, we show on the interpersonal level that, although procedural justice judgments and trust in organizations were found to vary considerably across occupational groups, the underlying trust-building process seems to be stable across health professionals and support staff. On the group level, however, support staff tends to have higher levels of trust in the organization and organizational procedural justice perceptions than health professionals. Our result therefore suggests that professional bureaucracies need to be aware of the risk that professionals and support staff interpret policies and practices differently based on their occupation.

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