Fulfilment of administrative and professional organisational obligations and nurses' customer-oriented behaviours

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E-mail: jeroen.trybou@ugent.be	<i>Aim</i> The aim of the study was to examine the relationship between the perceived quality of organisational exchange and nurses' customer-oriented behaviours. <i>Background</i> Hospitals face increasing competitive market conditions. Registered nurses interact closely with patients and therefore play an important front-office role towards patients.
	<i>Methods</i> A cross-sectional study was conducted. Registered nurses $(n = 151)$ of a Belgian hospital received a questionnaire to assess the fulfilment of administrative and professional organisational obligations and their customer-oriented behaviours.
	<i>Results</i> We found a positive relationship between psychological contract
	fulfilment and nurses' customer-oriented behaviours. More precisely
	administrative and professional psychological contract fulfilment relates
	significantly to nurses' service delivery and external representation. In case of internal influence only administrative psychological contract fulfilment was significantly related.
	<i>Conclusions</i> Nurses' perceptions of the fulfilment of administrative and professional obligations are important to their customer-oriented behaviours. <i>Implications for nursing management</i> Nurse managers must be aware of the impact of fulfilling both administrative and professional obligations of registered nurses in order to optimise their customer-oriented behaviours.
	<i>Keywords</i> : customer-oriented behaviour, hospital, psychological contract, registered nurse
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Introduction

Hospitals face increased competition. Patient choices, associated policies and funding arrangements have created increased levels of competition between providers (Leech & Matthews 2008). At the same time patientcentredness of health-care organisations has made it to centre stage when discussing the quality of care and it is considered a management and policy priority (Epstein & Street 2011). Registered nurses play a central important role in health-care organisations. They interact closely with patients and play a key frontoffice role (Verleye et al. 2016). Therefore, they are of crucial importance to hospitals' organisational success. In this article, we focus on the customer-oriented behaviour of registered nurses. More precisely we build on the concept of boundary-spanning behaviour - connecting customers with organisations - that contends that registered nurses achieve service excellence through three key areas: actual service delivery (being akin to key elements of service quality provision), external representation (being an outstanding advocate of the organisation to external constituents) and internal influence (being an internal champion for developing service excellence) (Yoo et al. 2014). Furthermore we draw on psychological contract theory which argues that organisational behaviour results from exchanges between the organisation and the individual. Rousseau (1995) describes the psychological contract as an individual's subjective beliefs, formed by the employing organisation, of the terms of exchange organisation and individual. Bunderson (2001) showed that the psychological contract of professionals involves administrative as well as professional aspects. Nurses practise in a pluralistic work setting and therefore interact with the hospital as an organisational member and as a nursing professional. Therefore we argue that both roles are important in order to understand how nurses relate to their hospital.

Surprisingly few studies have investigated these concepts in the field of nursing management. We aim to fill this gap by studying the fulfilment of the administrative and professional psychological contract in a sample of registered nurses. In addition, we investigate the relationship between the fulfilment of administrative and professional obligations and registered nurses' customer oriented behaviours.

Theoretical framework

Customer-oriented behaviour

Customer-oriented behaviours are extra-role behaviours that focus on customers (Podsakoff & MacKenzie 1997). Extra-role behaviour or organisational citizenships behaviour refers to additional behaviours that goes beyond the formal job requirements and comprises additional voluntary actions. Several different types of citizenship behaviour have been developed and previous studies have generally distinguished between individual- and organisation-targeted citizenship behaviours. In this study we focus on a specific type of indicitizenship behaviour: customervidual-targeted oriented behaviour. In the literature of the domain of services management, three different types of behaviour that link the organisation to its customers have been developed (Bettencourt & Brown 2003). First, customer satisfaction depends to a large extent on the behaviour of the front-line nurse who interacts intensively with the patient. Service delivery refers to treating patients in a courteous, flexible, responsive and conscientious way (Schneider & Bowen 1993). Second,

nurses represent the hospital to outsiders. They shape the external image of the hospital. More precisely, this external image determines the legitimacy of the organisation through their advocacy of the hospital. External representation focuses on the nurse as an advocate of the organisation's image and services to outsiders (Bettencourt & Brown 2003). Third, the key role of nurses who interact intensively with patients provides the opportunity to gain information about possible improvements and customer needs (Bowen & Schneider 1985). Internal influence focuses on the individual initiative of nurses in communicating to managers and co-workers in order to improve the service delivery (Zeithaml et al. 1988). In general, previous research has provided support for the valuable contribution of the boundary-spanning behaviour construct to our understanding of service excellence, and has accordingly proposed the positive effect on customer and organisational outcomes (Bettencourt et al. 2005).

The psychological contract

The psychological contract consists of an individual's subjective beliefs, formed by the employing organisation, of the terms of exchange between organisation and individual (Rousseau 1995). It has been shown that in the case of professional employees the psychological contract is characterised by a higher complexity than initially believed. More precisely, perceived obligations are shaped by administrative and professional aspects (Bunderson 2001, Trybou et al. 2015). Both types of obligations are relevant in order to understand how registered nurses relate to the hospital. Nurses function in the hospital both as an organisational member and as a professional. As professionals, they presume and assign specific roles to the hospital that are consistent with the ideology and institution of the professional work of nursing. As employees, they presume and assign specific roles to the hospital that are consistent with the ideology and institution of the administrative organisation.

Literature review

Linking psychological contract fulfilment to customer-oriented behaviour

A plethora of studies has supported the reciprocal relationship between the (un)fulfilment of the psychological contract of nurses and various organisational attitudes such as job satisfaction (Rodwell & Gulyas 2013), organisational commitment (McCabe & Sambrook 2013), job stress (Xavier & Jepse 2014), organisational trust and intentions to leave the organisation (Trybou et al. 2014). Besides the impact on organisational attitudes, scholars have also demonstrated that the psychological contract influences employee behaviour and job performance (Conway & Briner 2005). However, the results of previous studies show that while the (un)fulfilment of the psychological contract is a reasonably strong predictor of organisational attitudes, the relationships with work behaviour (Conway & Briner 2005) is much weaker. Both nurses' in-role and organisational citizenship behaviour - behaviour that goes beyond formal job requirements - have been studied. In general, an impact on different types of organisational citizenship have been identified, such as civic virtue (Bellou 2008), helping behaviours (Johnson & O'Leary-Kelly 2003) and knowledge exchange (Wu & Chen 2015). In this study we focus on customeroriented behaviour as a specific type of individual-targeted citizenship behaviour. Recently, scholars in the domain of services management have argued that spillover effects exist between the perceptions of organisational exchange and customer oriented behaviours (Yoo et al. 2014).

Service delivery

Previous studies have highlighted that the interaction between customer and frontline employee is paramount to customer satisfaction (Pimpakorn & Patterson 2010). Given the central important role of staff it is not surprising that how the employee feels is an important predictor of customer satisfaction (Barnes et al. 2014). For instance, it has been shown that employee emotions have a direct impact on customer emotions (Hennig-Thurau et al. 2006) and customer satisfaction (Yagil 2012). Surprisingly only few studies have studied these concepts in the field of nursing management. Gountas et al. (2014) showed that the customer orientation of nurses is associated with higher levels of job satisfaction and increases customer satisfaction. Furthermore Hsu et al. (2011) found that nurses who perceive high levels of social capital have higher organisational commitment, in turn intensifying

customer-oriented prosocial activities. Building on these insights we expect that the fulfilment of perceived obligations by nurses impacts the way in which they treat patients in a courteous, flexible, responsive and conscientious way.

Hypothesis 1a: Administrative psychological contract fulfilment is positively related to service delivery.

Hypothesis 2a: Professional psychological contract fulfilment is positively related to service delivery.

External representation

Nurses represent the hospital to outsiders. They shape the external image of the hospital and act as an advocate of the hospitals' image and services to outsiders. Previous studies have shown that organisational support (Trybou *et al.* 2015, 2016), organisational justice (Bettencourt *et al.* 2005) and workgroup support (Lages 2012) affect favourable representation. We therefore expect that nurses' perceptions of the fulfilment of the psychological contract impact nurses' representation of the hospital.

Hypothesis 1b: Administrative psychological contract fulfilment is positively related to external representation.

Hypothesis 2b: Professional psychological contract fulfilment is positively related to external representation.

Internal influence

Recently scholars showed that the perceived job fit (Yoo 2014), organisational justice (Bettencourt *et al.* 2005) and perceived organisational support (Trybou *et al.* 2015, 2016) have a positive effect on the employee's initiative of communicating to managers and co-workers about possible improvements of service delivery and customer needs. Building on these results we expect that the fulfilment of professional and administrative obligations of nurses' psychological contract impacts their customer-oriented behaviour.

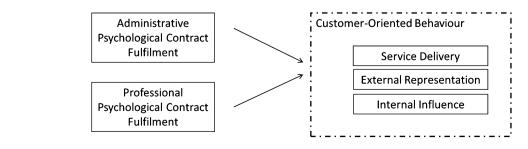


Figure 1 Study framework.

Hypothesis 1c: Administrative psychological contract fulfilment is positively related to internal influence.

Hypothesis 2c: Professional psychological contract fulfilment is positively related to internal influence.

The study framework is depicted in Figure 1.

Method

Design and sample

A convenience sample of 151 registered nurses of all six nursing wards of one Belgian hospital made up the sample of this study. The cross-sectional data were collected from March to April 2015. The inclusion criteria of the study were that the participants had to be registered nurses working on a nursing ward. Other staff (e.g. nursing assistants) and nurses not working on a nursing ward were excluded.

The data were analysed in April–May 2015. Data collection was performed during a 3-week time frame. The survey was conducted on paper. Multiple linear regression was used. The study was authorised by the ethics committee of the University Hospital of Ghent. Registered nurses participated voluntarily to this study. Confidentiality and anonymity was guaranteed. An informed consent was obtained from all the participants.

Before collecting the data, we performed a sample size calculation that showed that our sample size was sufficiently large. More precisely, taking into account linear regression analyses with two predictors and a medium effect size (0.15), at least 107 participating nurses are needed (Faul *et al.* 2009). Therefore we can conclude that we had an adequate number of respondents.

Instruments

The questionnaire was composed of previously validated and published instruments. Psychological contract fulfilment was measured by the instrument of Bunderson (2001). Respondents rated a 5-point Likert scale (ranging from 'strongly disagree' to 'strongly agree'). The items were aggregated to an overall score for each construct. Table 1 provides an overview.

Nurses' customer-oriented boundary-spanning behaviour was measured by the nine item version of Bettencourt and Brown (2003). For each type of customer-oriented behaviour (service delivery, external

Table	1
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Measures		
Construct	Items	Reference
Psychological contract Administrative psychological contract fulfilment (short version)	4	Bunderson (2001)
Professional psychological contract fulfilment (short version) Customer oriented behaviour	4	Bunderson (2001)
Service delivery External representation Internal influence	3 3 3	Bettencourt and Brown (2003) Bettencourt and Brown (2003) Bettencourt and Brown (2003)

representation and internal influence) three items were used. Sample items are: service delivery: 'I follow through on promises to customers in a conscientious manner', external representation: 'I tell friends and family the organisation is a good place to work', internal influence: 'I make constructive suggestions to improve service'). The internal reliability was satisfactory. The Cronbach's alpha for service delivery was 0.83, for external representation 0.91 and for internal influence 0.91.

Past research has applied different measures to study the psychological contract. Since we focus on the specific content of the psychological contract - professional and organisational obligations - we used an adapted version of Bunderson (2001). The validated instrument of these researchers makes use of a difference score between what was promised and delivered. Since the use of this rating method has been found problematic because of methodological concerns (Freese & Schalk 2008) we adjusted the measure. More precisely we used explicit questions to assess to which extent the organisation fulfilled its obligations to the nurse. Twelve items that referred to organisational and professional obligations were rated. An exemplary item for an administrative obligation is 'entrepreneurial'. An exemplary item for an professional obligation is 'clinical excellence'. Building on the theoretical and empirical findings of Bunderson (2001) two-first-order factors that correspond with the organisational and professional dimensions of the psychological contract should result from the analysis. To extract the initial solution the principal components method was applied: 52.6% of variance could be explained. Items that loaded higher than 0.4 on other factors or lower than 0.6 on their own factor were omitted. Four items were removed, resulting in a final eight items. Half of the items loaded on the professional dimension and half on the organisational Table 2

Correlations

	М	SD	1	2	3	4	5	6	7	8	9
1. Gender	0.12	0.321	_								
2. Organisational tenure	2.19	1.225	-0.095	_							
3. Work regime	3.32	0.892	0.136	-0.526**	_						
4. Level of education	1.64	0.546	-0.004	-0.105	0.157	_					
5. Administrative fulfilment	0.077	0.5385	-0.146	-0.174*	0.126	0.011	_				
6. Professional fulfilment	0.196	0.6669	-0.077	-0.198*	0.119	0.131	0.415**	_			
7. Service delivery	4.097	0.6056	-0.029	0.075	-0.13	0.005	0.310**	0.361**	_		
8. External representation	3.856	0.6859	-0.085	-0.069	-0.039	-0.022	0.494**	0.413**	0.271**	_	
9. Internal influence	3.542	0.6762	0.017	0.206*	-0.144	0.069	0.251**	0.144	0.290**	0.381**	_

n = 151. M, mean; SD, standard deviation.

**P* < 0.05.

***P* < 0.001.

dimension. The Cronbach's alphas were sufficient ($\alpha = 0.73$ for administrative psychological contract fulfilment and $\alpha = 0.79$ for professional psychological contract fulfilment).

Demographic questions were added to the survey to obtain descriptive data. Organisational tenure, work regime (full time *vs.* part time employment) and gender. Since in Belgium different levels of nursing education exist we included also the type of degree (graduate nurses *vs.* BSc nurse *vs.* MSc nursing) were used.

Data analysis

spss version 21.0 for Windows (SPSS, Inc., Chicago, IL, USA) was used to conduct descriptive and statistical analyses. A hierarchical multiple linear regression analysis was performed to test the influence of psychological contract fulfilment on customer oriented boundary-spanning behaviours, namely service delivery, external representation and internal influence. The variables were checked for multicollinearity (Polit & Beck 2013). Table 2 provides an overview.

Blocks of variables were used in separate analyses for each type of customer oriented boundary-spanning behaviour. Gender, organisational tenure, work regime and level of education were entered in step 1 as control variables into the model, the fulfilment of the administrative and professional psychological contract was added in step 2.

Results

Participants

Of the 274 nurses, 166 returned the questionnaire. We removed 15 individuals from the research due to missing data. The final sample size was 151 nurses. The overall response rate was 60.6%. In Table 3 sample characteristics are outlined. Most of the participants were female (88.4%), 56.7% of the participants had a full time work regime. These figures are comparable to the studied population.

Descriptive statistics

Table 2 provides an overview of the correlations of the variables. No significant correlations between the fulfilment of the psychological contract (administrative and professional) and customer-oriented behaviours and gender and educational level were present. The results demonstrated a significant correlation between organisational tenure and work regime (r = -0.526,P < 0.001). Participants with higher organisational tenure had a lower work regime. Also we determined a significant negative correlation between organisational tenure and administrative psychological contract fulfilment (r = -0.174, P < 0.05) and professional psychological contract fulfilment (r = -0.198, P < 0.05). Participants with higher organisational tenure perceived lower levels of contract fulfilment. Organisational tenure correlated positively with internal influence (r = 0.206, P < 0.05) implying that nurses with higher tenure are more likely to have more internal influence.

Furthermore the results demonstrated a significant correlation between administrative psychological contract and the studied customer-oriented behaviours (service delivery r = 0.310, P < 0.001; external representation r = 0.494, P < 0.001; internal influence r = 0.251, P < 0.001). Fulfilment of the professional psychological contract was positively related with service delivery (r = 0.361, P < 0.001) and external representation (r = 0.413, P < 0.001). These results imply that nurses who perceive higher

Table 3

Participants' demographics

	п	%
Gender		
Male	17	11.6
Female	130	88.4
Work regime		
<50%	6	4
50–75%	25	16.7
>75%	34	22.7
Full time	85	56.7
Educational level		
Nurses BSc	86	57.7
Graduate Nurse	58	38.9
Master Nursing	5	3.4
Organisational tenure		
<5 years experience	62	41.9
6-10 years experience	33	22.3
11-20 years experience	16	10.8
>20 years experience	37	25

levels of contract fulfilment are more likely to have higher levels of customer oriented behaviours. There was no significant correlation between professional psychological contract and internal influence (r = 0.144).

The impact of psychological contract on customer-oriented behaviours

A hierarchical multiple linear regression analysis was performed. First, gender, organisational tenure, work regime and level of education were inserted. Second, fulfilment of the administrative and professional psychological contract was added. As shown in Table 4 fulfilment of the administrative psychological contract (P = 0.005) and professional psychological contract (P < 0.001) were significantly related to service delivery. An important amount of variance was explained (adjusted $R^2 = 0.209$; P < 0.001).

Table 5 demonstrates that fulfilment of the administrative psychological contract (P < 0.001) and professional psychological contract (P < 0.001) were significantly related to external representation. An important amount of variance was explained (adjusted $R^2 = 0.241$; P < 0.001).

As shown in Table 6 fulfilment of the administrative psychological contract (P < 0.001) was significantly related to internal influence. In contrast, fulfilment of the professional psychological contract was not related to internal influence (P = 0.722). An important amount of variance was explained (adjusted $R^2 = 0.154$; P < 0.001).

Table 4

Results of multiple regression for service delivery

Step	Variable(s) entered	β	Р
1	Gender	0.034	
	Organisational tenure	0.138	
	Work regime	-0.164	
	Level of education	-0.076	
2	Administrative psychological contract fulfilment	0.246	0.005
	Professional psychological contract fulfilment	0.318	< 0.001

n = 151.

Table 5

Results of multiple regression for external representation

Step	Variable(s) entered	β	Р
1	Gender	-0.039	
	Organisational tenure	0.016	
	Work regime	-0.067	
	Level of education	-0.032	
2	Administrative psychological contract fulfilment	0.344	< 0.001
	Professional psychological contract fulfilment	0.292	0.001

n = 151.

Table 6

Results of multiple regression for internal influence

Step	Variable(s) entered	β	Р
1	Gender	0.095	
	Organisational tenure	0.257	
	Work regime	-0.117	
	Level of education	0.130	
2	Administrative psychological contract fulfilment	0.341	< 0.001
	Professional psychological contract fulfilment	0.032	0.722

n = 151.

Discussion

Nurses interact closely with patients and play a key front-office role. By being customer-oriented, nurses can help health-care organisations to achieve service excellence. More precisely they potentially contribute by being akin to key elements of service quality provision (service delivery), by being an outstanding advocate of the organisation to external constituents (external representation) and by being an internal champion for developing service excellence (internal influence). In this study, we found that by fulfilling nurses' administrative and professional psychological contracts customer-oriented behaviour can be promoted. These findings are similar to those of Bettencourt et al. (2005) who showed that organisational justice perceived by employees impacts on their customer-oriented behaviour. Likewise Trybou et al. (2015) found that perceptions of organisational exchange of self-employed physicians impacts on external representation and internal influence. We contribute to this literature by demonstrating relationships with perceptions of the fulfilment of the psychological contract in a sample of registered nurses. Importantly, in contrast to the study of Trybou et al. (2015) we were able to demonstrate larger effects on customer-oriented behaviour and found an effect on service delivery. We argue that this can be explained by the key front-office role that nurses play in hospitals. They interact closely, intensively, with patients when delivering the care (Verleye et al. 2016). Another possible explanation is that we considered administrative as well as professional aspects. Past studies that have shown the impact of the psychological contract on organisational citizenship behaviour have often included the global assessment of the psychological contract. However, the results of previous studies show that while the (un)fulfilment of the psychological contract is a reasonably strong predictor of organisational attitudes, the relationship with work behaviour (Conway & Briner 2005) is much weaker. In addition these studies were unable to test for the possible differences between administrative and professional dimensions. Our study shows that the study of nurses' psychological contracts can be enriched by considering the pluralistic work setting in which they interact with the hospital as an organisational member-employee and as a nursing professional. We thereby confirm the findings of Bunderson (2001) in a nursing setting. When considering the differences between administrative and professional aspects our results show that internal influence is only explained by the fulfilment of administrative obligations (and not the fulfilment of professional obligations). This is surprising since we expected that professional aspects of the relationship between nurse and hospital impact the internal influence. A possible explanation is that communicating to managers and colleagues originates more strongly in the administrative organisation of the hospital (than the professional organisation of nursing). This finding needs further study.

Limitations and future research

In this research a cross-sectional design was applied. This does not permit causal interpretations. The results of this study should therefore be carefully interpreted. In addition our study used a convenience sample of only one (private not-for-profit) Belgian hospital. This limits the generalisability of our findings. Furthermore no data were collected of the registered nurses who did not respond to the survey. However, because of the support of our findings by theoretical insights and previous studies outside the nursing setting, the results show that further research is necessary. A larger sample combined with a longitudinal design would be valuable to further validate the model within a nursing setting. Finally the effects of psychological contract fulfilment are more complex than originally believed. It would be valuable to investigate the role of other key attitudes such as job satisfaction and organisational commitment. In addition the influence of the quality of the relationship with colleagues and head nurse could be important. In a similar vein the impact of the different types leadership styles could be valuable.

Conclusion

The current findings highlight the importance of fulfilling the obligations of the psychological contract of registered nurses in order to increase customeroriented behaviours. Our study shows that the study of nurses' psychological contracts can be enriched by considering the pluralistic work setting in which they interact with the hospital as an organisational member-employee and as a nursing professional. The results show a positive relationship between administrative and professional psychological contract fulfilment and registered nurses' customer oriented. Given the growing competition between health-care organisations and the key front-office role that registered nurses play this is an important insight. Our results highlight the need for more nursing management research in this field.

Implications for nursing management

Hospitals face increasing competition. Nurses interact closely with patients and play a key front-office role. This study allows nursing managers and leaders to understand the importance of psychological contract fulfilment of nurses to their customer oriented behaviours. Nursing management must be aware that the fulfilment of expectations of nurses plays an important role in the interaction between nurses, organisation and patient. Besides fulfilling the expectations of nurses, managing the professional expectations (such as clinical excellence and quality of care) and administrative expectations (such as efficient processes) can be considered important. This could prevent perceptions of inadequately fulfilling the psychological contract.

In addition, it is important to realise that both administrative and professional roles exist. Both are important to nurses customer oriented boundary-spanning behaviours. Thus, managers should be encouraged to consider both dimensions.

Finally, different types of customer oriented boundary-spanning behaviours exist. Besides service delivery (achieve service excellence by being akin to key elements of service quality provision) also external representation (being an outstanding advocate of the organisation to external constituents) and internal influence (being an internal champion for developing service excellence) are important roles that nurses can fulfil.

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Ethical approval

The study was authorised by the ethics committee of the University Hospital of Ghent. Nurses participated voluntarily to this study. Confidentiality and anonymity was guaranteed. An informed consent was obtained from all participants.

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