

## ORGANIZATIONAL CITIZENSHIP BEHAVIOR (OCB), SERVICE QUALITY, AND PATIENT SATISFACTION: A CASE STUDY OF THE NURSES IN PRIVATE HOSPITALS OF SURABAYA

Thomas Stefanus Kaihatu dan S. Pantja Djati

Universitas Ciputra Surabaya dan Universitas Kristen Indonesia

[thomas.kaihatu@ciputra.ac.id](mailto:thomas.kaihatu@ciputra.ac.id) dan [spantjadjati@yahoo.co.id](mailto:spantjadjati@yahoo.co.id)

**Abstract.** As a distinctive employee behavior, organizational citizenship behavior (OCB) plays an important role in shaping the quality of service provided by nurses to further enhance the feeling of satisfaction experienced by customers. This research aims to explain the relationship between OCB, service quality, and patient satisfaction in hospital setting. We use the perception of costumers in explaining the three constructs used in this research. The respondents are 30 full time nurses and 100 hospital inpatients of private hospitals (63.29% response rate) in private hospitals in Surabaya. SEM-PLS is used for the data analysis, yielding results that OCB has positive and significant relationship towards service quality, and service quality has positive and significant relationship towards customer satisfaction. Thus, the results confirm previous researchers' findings. Future research direction is advised as the relationship between service quality and customer satisfaction is found to be significantly weaker than previous researchers' results.

**Keyword:** Organizational citizenship behavior, service quality, customer satisfaction

**Abstrak.** Sebagai sebuah perilaku karyawan yang unik, organizational citizenship behavior (OCB) memegang peranan penting dalam membentuk kualitas layanan suster-suster di Rumah Sakit yang nantinya akan meningkatkan kepuasan konsumen. Penelitian ini bertujuan untuk menjelaskan hubungan antara OCB, kualitas layanan, dan kepuasan konsumen di setting Rumah Sakit. Persepsi konsumen digunakan dalam menjelaskan ketiga konstruk dalam penelitian ini. Responden berjumlah 30 suster yang bekerja penuh waktu dan 100 pasien rumah sakit swasta (63,29% tingkat respon) di Surabaya. SEM-PLS digunakan untuk menganalisa data, dengan hasil bahwa OCB memiliki pengaruh positif dan signifikan terhadap kualitas layanan, dan kualitas layanan berpengaruh positif signifikan terhadap kepuasan pelanggan. Hasil ini mengkonfirmasi penelitian-penelitian terdahulu. Saran untuk penelitian selanjutnya dijelaskan lebih lanjut karena hubungan kualitas layanan dan kepuasan pelanggan ditemukan jauh lebih lemah daripada hasil peneliti-peneliti terdahulu.

**Keyword:** Organizational citizenship behavior, kualitas layanan, kepuasan pelanggan

### INTRODUCTION

In the past decade, researchers emerge in the study of patient satisfaction in the hospital setting (McFarland, Ornstein, and Holcombe, 2015, Dansereau, *et al.*, 2015 Ghorbani *et al.*, 2016). These researches are based on the concern of WHO regarding the key health objective system. While the hospitals as companies are supposed to aim for highest patient satisfaction, these previous researchers found that the level of satisfaction was not as high as it is expected. Dansereau *et al.* (2015) reported that the average patient satisfaction level in Zambia was 6.9 out of 10, and further exacerbated

by Ghorbani *et al.* (2016), reporting that the patient satisfaction level was moderate in Iran.

The moderate satisfaction level was mainly caused by the poor service provided by either the staff in charge of the patients' healing (physician or doctor) or the staff in charge of providing the patients with their needs (nurses). This raises great concern for hospitals, especially because as organizations, hospitals should be concerned with their patients' satisfaction. Furthermore, the patients as customers defines the performance of hospitals as companies, whether it is the profitability (Zhang and Pan, 2009) or customer loyalty (Mohsan *et al.*, 2011). Chi and Gursoy (2009) explained further that achieving customer satisfaction is a major indicator in determining the success of a company. Thus, hospitals as companies need to address the situation accordingly, as the moderate level of patient satisfaction may lead to the decrease in profitability and loyalty as well.

While hospitals play their own role in the modern economy, they are still a part of service industry. As a service-based organization, it cannot be avoided that human factor plays a vital role (Ferrinadewi and Djati, 2004) due to the intense interaction between the doctors, nurses, or administration staffs as the hospital's representatives, and the customers, making the position of these workers irreplaceable in a hospital as an organization (Fujimoto, 2011). Thus, hospitals have to raise their awareness regarding the quality of service provided by their staffs, as it will be the main predictor of the patients' satisfaction.

Service quality provided by hospitals are judged by their patients as customers (Zeithaml and Bitner, 2009), as it is the gap between the patients' expectation and the actual service performed by the staffs, which further emphasize the importance of human in an organization. Although hospitals may argue that the service they provide is the best they can do, it has to be understood that the deciding factor whether the service is satisfactory or not is still the customers, or in the hospital context, the patients. Thus, the actors of service provider, which are the staffs, have to be regarded as vital (Padma, Rajendran, and Lokachari, 2010, Marković, Lončarić, dan Lončarić, 2014, Arsanam and Yousapronpaiboon, 2014).

Past research have found several antecedents of service quality such as knowledge, skill (Castro, Armario, and Ruiz, 2004), and extra-role behavior (Bell and Menguc, 2002). These antecedents are mainly focused of both the previously acquired skills and the characteristic of a worker, further highlighting the importance of the workers. The extra-role behavior or often labeled as organizational citizenship behavior or OCB (Ferrinadewi and Djati, 2004) is the construct which we focus on in this research.

Although the skill and knowledge of the staffs are equally important in building customers' trust which leads to both service quality and customer satisfaction (Rao and Sahu, 2014), we do not include this traits since in the hospital setting, these traits are acquired specifically during the workers' education period. Prior to becoming hospital staffs, the future workers need to attend at least 3-4 years of college or university and obtains certain degree or certification. They will be required to undergo internships to hone their skills and knowledge. Thus, the level of skills and knowledge will be approximately equal. Therefore, it can be considered that the deciding factor of whether patients will have positive perception of the service quality will be whether the staffs are willing to go beyond their duty to provide excellent service to the customers.

This research will add further understanding regarding the relationship between OCB, service quality, and customer satisfaction, especially in the setting of hospitals.

While hospitals do employ a lot of different staffs, not every one of them are involved in dealing with the customers. Furthermore, the customers, or in this context, patients, are not in their best condition during the service experience. Whether this would affect their judgment of the service quality provided by the hospitals, it would be an interesting finding. Furthermore, hospitals are also unique service company, provided that the customers have single specific reason to get into the hospital, which is recovering from their disease. Thus, it will also be interesting to find the relationship between service quality and patient satisfaction in the sense that the service itself is not the core reason for the patients to come into certain hospitals. Based on these annotations, we decided to seek further understanding regarding the impact of OCB towards both service quality and patient satisfaction in a hospital setting.

## THEORITICAL REVIEW

**OCB and Service Quality.** OCB has been defined as an extra role behavior, in which the workers have their choices whether they would conduct this behavior or not (Castro, Armario, and Ruiz, 2004). Organ *et al.*, (2006) added that this behavior is outside of the job description and done voluntarily. Kartika (2011) further explained that the workers performing OCB will not be rewarded, which differentiates OCB and the intra-role behavior.

Organ *et al.*, (2006) described the 5 dimensions of OCB, which are altruism, conscientiousness, sportsmanship, courtesy, and civic virtue. Altruism is a helping behavior, both in the context of work and personal, while conscientiousness is the drive to perform exceeding the standard of an organization (Organ *et al.*, 2006). Sportsmanship is the tolerance given to the organization regarding the less-ideal condition within said organization (Kartika, 2011), and courtesy is the behavior emphasizing on the good relationship between a worker and his/her co-worker. Finally, civic virtue is a behavior which indicate a worker's responsibility towards and organization, which is shown by his/her willingness to provide said organization with improvements idea and protect this organization's resources.

Castro, Armario, and Ruiz (2004) argued that achieving better relationship between workers within an organization will lead to a high quality relationship between the workers and their customers. It is further explained that the positive behavior projected towards the customers are built by the internal factor of an organization, in which this internal factor is built directly by the workers of the said organization. When this behavior is done voluntarily (Organ *et al.*, 2006), the result will be positive towards organization, in which the positive atmosphere of the working condition will later be projected in the form of better service quality towards the customers (Castro, Armario, and Ruiz, 2004).

*Hypothesis 1: OCB has positive and significant relationship towards service quality.*

**Service Quality and Patient Satisfaction.** Definitely not a new concept in the research of applied marketing. Based on the model developed by Parasuraman in 1998, research on service quality has been done in several different service industries (Oh, 1999).

In essence, service quality is formed by the gap between the service expected by the customers and the actual service provided by a company or organization (Shahin and Samea, 2010). It has to be measured in the perception of the customers (Kotler and

Armstrong, 2003), and it will aid in the formation of the impression developed by customers towards an organization. The better the service quality is, the better company impression will be formed in the mind of its customers.

Zeithaml and Bitner (2009) explained the 5 dimensions of service quality, which are tangible, reliability, responsiveness, assurance, and empathy. Tangible is related to the aspects which can be experienced directly using human's five senses, and reliability is a company's ability to provide service based on what was promised. Responsiveness is the dimension emphasizing on the speed and accuracy of the service, and assurance emphasizes on the safety and security of the service experience. Finally, empathy is the ability of the company's representatives to give caring and personalized service towards their customers.

It was further explained that service quality is the projection of a company's dedication towards its customers to provide excellent service which meets customers' expectation (Kotler and Armstrong, 2003). Therefore, it can be stated that there are 2 criteria in providing the service quality, which are the expectation of the customers and the actual service provided by a company. When these two criteria are met, it will result in the forming of customer satisfaction (Zeithaml and Bitner, 2009).

*Hypothesis 2: Service quality has positive and significant relationship towards patient satisfaction.*

## METHODS

**Data Collection.** The respondents were currently working full-time nurses in 4 major private hospitals in Surabaya, Indonesia with at least 1 year tenure, and inpatients who are older than 18 who stayed in these private hospitals. We decided to use the nurses only instead of the other staffs because of the intensity of contact towards the patients. While the doctors have a direct contact to the patients as well, usually the doctors are regarded by their skills, knowledge, and specialization. Thus, the service provided is not directly perceived by the customers because their aim is to get healed. However, the situation is not the same regarding the nurses. Patients usually assess the nurses' competency in delivering the service (e.g. communication), to determine whether the service is satisfactory or not (McFarland *et al.*, 2015). The other staffs such as the receptions and cashiers are similar to the nurses, in the sense of these staffs are not assessed based on their skills, knowledge, and specialization. However, the intensity of contact is usually low. The number of encounters are significantly lower than the nurses, which are check in and billing time. Usually, the patients and their family are directed to wait while the check in and billing process are recurring, making the encounters even lesser. Thus, we found it better to focus on the nurses to examine our presented constructs.

Initially, we distributed 158 questionnaires to the hospitals' representatives to be further distributed into the nurses and patients. Following Podsakoff *et al.*, (2003) procedure, we ensure that the questionnaire filled are completely anonymous to reduce the common method bias. In doing so, we ask the respondents to put the questionnaires which are already filled into an envelope and later seal it. The envelopes are then given directly to the hospital representatives and later to us. To further reduce the common method bias, we use dyadic research design. In doing so, we contacted the hospitals prior to the questionnaires distribution to ask for their cooperation in doing the research. The nurses are selected by the hospitals based on the intensity of contact with patients. Therefore, the initial sample consisted of 30 nurses and 158 patients who were

being taken care of by these nurses. The nurses filled the OCB questionnaires, and the patients filled the service quality and customer satisfaction questionnaires based on the performance of these nurses. Furthermore, we requested that the patients' questionnaires to be filled with the assistance of these patients' family or friends who were also taking care of them.

We inserted a question which was instructed to be left blank in order to make sure that the respondents would read and fill the questionnaires carefully, signifying that they understand the questions. Out of the initial 158 questionnaires, 107 paired questionnaires were returned. 4 questionnaires were not used because the question which are supposed to be left blank was filled by customers, and 3 more cannot be used because the respondents were still under contract and have worked for these hospitals for less than a year. The final sample is 100 respondents, yielding 63.29% response rate.

**Measurements.** *Organizational citizenship behavior.* We use the OCB scale developed by Organ *et al.*, (2006) which is further modified to fit in Indonesian context. This scale have gone through back-translation process, in which the author translated Organ *et al.*, (2006) scale to Indonesian, and the result is translated back into English with the help of a qualified English teacher with TESOL certification and IELTS of 8.0. Then, we adjust the wordings to make sure that the questions describes the OCB behavior in hospitals setting. These questions are then checked once again by a different English teacher and a fellow management researcher to provide it with strong content validity. The questionnaire consists of the 5 dimensions of OCB which are broken down into 24 statements relating to extra-role behavior. Next, these statements are grouped into 5 indicators for the purpose of data analysis. Respondents filled the questionnaire ranging from 1 = never to 5 = almost always. Sample statements are "helping co-workers when they need it" and "maintain good relationship with co-workers".

#### *Service quality*

*The service quality* scale used in this research is based on the indicators provided by Zeithaml and Bitner (2009), encompassing the 5 dimensions of service quality with 22 statements ranging from 1 = completely disagree to 5 = completely agree. Similar to the OCB scale, this scale also went through back translation process and was further adjusted to fit in hospital setting. The content validity check procedure are also done. The resulting statements are then grouped into 5 indicators for the purpose of data analysis. The prefix of these statements are "This nurse...". Sample statements are "possess adequate competencies to answer your questions" and "maintain the cleanliness of your room".

*Patient satisfaction.* The scale used in measuring patient satisfaction derived from the customer satisfaction indicators developed by Dutka (1994). These indicators are based on 2 dimensions, which are product-related satisfaction and service-related satisfaction. We use the 11 statements from these 2 dimensions, which also underwent back translation process. The scale result is prefixed with "Your level of satisfaction regarding..." and the respondents are asked to answer ranging from 1 = not satisfied at all to 5 = very satisfied. It is then re-worded to fit the statements into hospital setting and later grouped into the initial 2 indicators for the data analysis purpose. Sample statements are "the price compared to your staying experience" and "the variation of medical tests provided by this hospital".

**Data Analysis.** Before analyzing the data, we created the demographic profile and the mean analysis to further understand the respondents and the general attitude towards our 3 proposed construct. It was found that that out of 30 nurses, 20 were female (66.67%) and 10 were male (33.33%). 8 were less than 25 years old (26.67%), 12 were between 26-35 years old (40%), 6 were between 36-45 years old (20%), and 4 were 46 years old and above (13.33%).

Out of 100 patients, 42 were male (42%) and 58 were female (58%). 10 patients were less than 25 years old (10%), 41 were between 26-35 years old (41%), 38 were between 36-45 years old (38%) and 11 were 46 years old and above (11%). The respondents job were 10% students, 12% public workers, 31% private workers, 6% professionals, 17% entrepreneurs / businessmen, and 24% unemployed, mostly housewives.

In conducting the mean analysis, we grouped the score into 5 interval scores which are 1 - 1.8 (inferior); 1.81 - 2.6 (poor); 2.61 - 3.4 (good); 3.41 - 4.2 (very good); 4.21 - 5 (superior). Then, we use excel to compute the average value of each constructs which resulted in: (1) The mean value of OCB was 3.506, indicating that according to the nurses' perception they possess good extra-role behavior. (2) The highest mean value of the OCB dimension was 3.58 for the civic virtue dimension. This indicates that the nurses are willing to give ideas for the hospital's improvement and in doing so, they are showing that they are responsible workers. (3) The mean value of service quality was 4.044, indicating that according to the patients, the service quality was considered good. (4) The highest mean value of the service quality dimension was 4.21 for the assurance dimension. It can be said that the patients feel that they are safe while they are being taken care of the nurses. The sense of security came from the patients' trust towards the nurses' ability, creating their perception of safe service provided by the nurses. (5) The mean value of patient satisfaction was 3.37 indicating that overall, the patients feel good satisfaction towards the hospitals' service. (6) The highest mean value of the patient satisfaction was 3.63 for the product satisfaction dimension. Although the value is not far different than the other dimension which is service satisfaction, it can be said that the patients perceived that the products provided by the hospitals such as treatments, medicines, or injections are more satisfactory than the service.

**Outor Model Evaluation.** The evaluation of construct outer model is used to determine whether the constructs proposed are both valid and reliable. In doing so, we conducted two validity analysis, which are convergent and discriminant validity, and two reliability analysis, which are the cronbach's alpha and composite reliability. All of the analysis are done using SmartPLS 2.0. The tool is chosen because of the ease of access and its flexibility in computing models with weaker theoretical foundation, and also its predicting capability.

#### *Convergent validity*

In assessing the convergent validity of each construct, we conducted the loading factor analysis using the software. The cut-off point for this is 0.5, in which every indicators possessing loading factor value greater than 0.5 can be considered as valid.

Table 1 shows that the loading factor in each construct is greater than 0.5. Moreover, each of the items can be considered close to 1, with the lowest value of 0.8242 in the fourth indicator of service quality.. Thus, it can be concluded that the model has high convergent validity.

**Table 1.** Loading Factor Value

	OCB	ServQual	Satisfaction
x11	0.8904	0	0
x12	0.9377	0	0
x13	0.9095	0	0
x14	0.9361	0	0
x15	0.8381	0	0
y11	0	0.9303	0
y12	0	0.9066	0
y13	0	0.8598	0
y14	0	0.8242	0
y15	0	0.8925	0
y21	0	0	0.9793
y22	0	0	0.9701

**Discriminant validity.** We used two measures for the discriminant validity. The first measure was the cross loading value. Each indicators have to measure their respective constructs rather than other constructs unrelated to these indicators. This is shown by the value represented by the cross loading, in which the value of the relationship between each indicator and its construct has to be greater than the value of the relationship between said indicator to other constructs. The second measure was the AVE (Average Variance Extracted). This is selected due to the design of the research model. Our model uses reflective indicators for each of the constructs, so it is deemed fit to use AVE as an indicator of good discriminant validity. The value of AVE of each construct has to be greater than 0.5 as an indicator of good discriminant validity.

**Table 2.** Cross Loading

	OCB	ServQual	Satisfaction
x11	0.8904	0.6076	0.3057
x12	0.9377	0.6733	0.3015
x13	0.9095	0.6805	0.2963
x14	0.9361	0.72	0.2005
x15	0.8381	0.7076	0.2299
y11	0.7737	0.9303	0.1684
y12	0.7243	0.9066	0.3189
y13	0.54	0.8598	0.2656
y14	0.4748	0.8242	0.2658
y15	0.744	0.8925	0.123
y21	0.2849	0.267	0.9793
y22	0.2876	0.2228	0.9701

Each indicator measures its constructs better than others. There are some loading factor values which are close to other constructs as well. This may indicate that there is multicollinearity issue in this model. However, it can be said that the cross loading values indicate that the discriminant validity of this model is average since every indicator measures its variable better.

**Table 3. AVE**

	AVE
OCB	0.8156
ServQual	0.7805
Satisfaction	0.95

Every construct has AVE value higher than 0.5. Thus, it can be concluded based on both the cross loading value and the AVE value that the discriminant validity of this model is good.

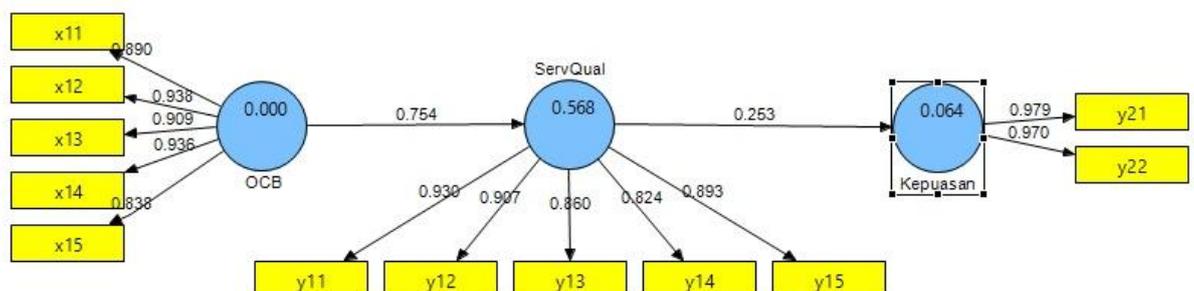
**Reliability tests.** While it is normal to use one of the reliability value (either cronbach’s alpha or the composite reliability), we decided to use both measures to ensure that the model has high reliability. The cut-off point of these values are 0.6 for cronbach’s alpha and 0.7 for the composite reliability. If the value of reliability tests generated from the SmartPLS 2.0 software is greater than those values, then the model can be considered reliable.

**Table 4. Reliability tests**

	Composite Reliability	Cronbach Alpha
OCB	0.9567	0.943
ServQual	0.9467	0.9302
Satisfaction	0.9744	0.9478

Based on Table 4, it can be concluded that both measures of reliability test in every construct are higher than their cut-off points. The high value of cronbach’s alpha means that the model has a considerably high internal consistency reliability which is a measure based on the correlations between different items within the model that is used for this research. Thus, it can be concluded that the model proposed in this research is reliable.

**Inner Model Evaluation and Hypothesis Testing.** After conducting the initial steps required to do the hypothesis testing, we conducted the inner model analysis to determine the relationship between OCB and ServQual, and ServQual and Patient satisfaction. In doing so, we examined the beta result and conducted the bootstrapping procedure required for observing the t value of each relationship used for determining whether a relationship is significant or not.



**Figure 1. PLS Algorithm Result**

Based on Figure 1, the relationship between OCB and ServQual can be determined to be positive with the beta coefficient of 0.754. The R-squared value of ServQual is 0.568 which signifies that 56.8% of patients' perception of service quality can be explained by OCB and the rest are explained by other construct outside of this research. The beta coefficient of the relationship between ServQual and Satisfaction is 0.253, indicating that there are positive relationship between these two constructs. The R-squared value, however, can be considered very low at 0.064, signifying that only 6.4% of the patient satisfaction towards hospitals can be explained by ServQual. Thus, it can be said that patient satisfaction is explained better by variables which are not used in this research.

#### *Hypothesis testing*

The bootstrapping was done at 100 cases and 200 samples provided by default by the SmartPLS 2.0 software. Using this default setting, the original sample generated and the sample mean are already similar. Thus, an adjustment is not required. The t value generated will be compared to the cut-off point of 1.96. If the values generated are greater than the cut-off point, the relationships are deemed significant.

**Table 5.** Hypothesis testing

	Original Sample (O)	T Statistics ( O/STERR )
OCB -> ServQual	0.7536	19.6213
ServQual -> Satisfaction	0.2532	3.0894

Table 5 shows both the beta coefficients and the t values of each relationships. Based on this table it can be concluded that: (1) The relationship between OCB and service quality is positive and significant, with the t value of 19.6213. Thus, hypothesis 1 is supported. (2) The relationship between service quality and patient satisfaction is positive and significant, with the t value of 3.0894. Thus, hypothesis 2 is supported.

**Discussion.** The perception of the hospital patients regarding the organizational citizenship behavior projected by the nurses can be considered good. This signifies that the nurses are working the best they can in the eye of the patients. Both the overall mean and each dimensions mean score fall into good category, signifying that the nurses possess all five qualities of good citizen of the hospitals. Furthermore, the patients perceived that the nurses provide the hospitals with ideas for improvement. We conducted post-research interviews with both the patients and the nurses regarding the result, since it is not easy for the patients to recognize the ideas given to the hospitals by the nurses. Out of the 5 ex-patients we interviewed, 3 stated that the nurses took their requests and communicated them to the hospitals. Moreover, the hospitals actually provided them with their requests such as providing softer food and more soup-based meal. One patient described a situation, in which the patient suffered from throat infection. The nurse in charge recognized that the infection caused him severe pain to even speak. Thus, she quickly offered to put a sign which said that the patient would not be able to receive guests for 3 days. This was recognized to be the proactiveness of the nurse, which is perceived as full of ideas and ready to execute those ideas by the patient.

The nurses themselves explained that OCB is actually built in themselves the moment they chose to work in a certain hospital. Most of them decided to be nurses as they love to be able to help the patients in need. This leads to certain work ethics which involves the willingness to do extra mile to make sure that the patients they are taking

care of feel comfortable during their stay. Furthermore, the nurses are willing to stay longer, work together as a team, and providing the hospitals with ideas for improving the patients' level of comfort, signifying that the level of OCB is high as well. With the high level of work pressure, both the shifts and fulfilling the doctors' and patients' requests, they find enjoyment in forming a certain bond with other nurses, which leads to the high level of helping behavior outside their job description. We found this phenomenon interesting, as this indicates that the nurses approach their OCB level from a different perspective. The extra role behavior usually signifies the high level of commitment to a certain organization or to a certain profession. However, the OCB projected by the nurses derives from the need to fulfill patients' needs. Kelley (1992) mentioned that employee's positive behavior towards an organization will be reflected to the customers as well. This might be similar to the case of the nurses.

We also found that the patients perceive the quality of service provided by the nurses to be good. While 4 of the service quality dimensions, which are tangible, responsiveness, reliability, and empathy are considered good, patients felt that the assurance given by the nurses to be the strongest point of the quality. According to our post-research interviews, the ability of the nurses to calm the patients down is considered to be vital. One patient with fear of needle recalled a moment when the doctor had to give his medicine via infusion or drip, the nurse managed to calm him down. She was also very skilled in finding the vein and he did not feel major pain during the insertion of the infusion needle. This created the feeling of safety, as the nurse's skill convinced him that the hospital's workers are exceptionally skilled. However, some patients did mention some occasions relating to the lack of service quality provided by the hospitals. While the nurses do perform excellently, the cashiers usually do not provide such performance in delivering the service. All of the patients from our post-research interview stated that the waiting time to get the hospital bills is too long, ranging from 45 to 90 minutes. Although the patients' had already recovered from the disease, usually their physical condition is not yet fit. Therefore, the long waiting time is perceived to be even longer by the patients. Some mentioned that they are given the explanation that the patients' condition, medicines, or record were not yet updated and the cashiers were unable to get the bill printed in a short period of time. This can also be the direction of future research as this phenomenon is found out from some patients only.

Although the result shows that the patients are satisfied to both the product and service provided by the hospitals, the product satisfaction is slightly higher. This shows that the private hospitals provide good products, in terms of the medicine, the variation of medical tests, and the food provided for the inpatients. The service can be considered good as well, which shows that the service provided by the doctors, nurses, and other hospital staffs such as receptions, cleaning service, and cashiers is satisfactory. Patients feel that the value gained from their stay in the hospitals is equal or higher than the price they pay. All the patients from the post-research interview stated that the hospitals managed to help them recover from their diseases, which is considered as value greater than anything.

The hypothesis testing of this research indicates that there is positive, strong and significant relationship between OCB and service quality provided by the hospitals, supporting the first hypothesis. The second hypothesis is also supported. However, it has to be noted that the relationship is not as strong. In fact, it can be said that the relationship is weak, although it is significant. The explanation of this two phenomenon in a hospital setting will be presented below.

Our findings presented that the nurses' perception of their OCB is high, which indicates that they possess the willingness to work beyond their job description voluntarily (Bienstock *et al.*, 2003), whether it is directed towards the organization or co-worker. This can be explained using the socialization theory which stated that the socialization process of an individual is reflected on the affective behavior orientation towards an organization (Castro, Armario, and Ruiz, 2004). The better the affective behavior towards an organization, the more positive the socialization process of an individual in the said organization. This positive reflection is a part of the dimensions of OCB, in which the individual will project a positive behavior towards the workplace, whether it is towards the co-worker or towards the customer (Netemeyer *et al.*, 1997). This supports Kelley's argument (1992) stating that when an individual possesses a positive affective behavior towards an organization, this behavior will also be projected towards its customers.

This behavior, while it is driven from within the nurses, it will also affect the way they provide patients with their level of service. This will later be translated as good service by the patients, as they are the ones experiencing the service. Schneider and Bowen (1999) labeled this phenomenon as the service climate, where the best service provided by a company's representative is well perceived by the customers. In the service climate cycle, the nurse possessing the willingness to serve more will be responded positively by the patients by stating that the service quality is very good. It has to be noted as well that the service orientation itself is originated from the positive result from the nurses' socialization process towards their customers. In short, the nurses possessing high OCB which later is translated into positive affective behavior towards the hospitals they are working at the moment, have build excellent service climate which are perceived as good service quality by the patients.

The good perception of service quality presented by the patients affects their level of satisfaction, as indicated by Zeithaml and Bitner (2009) that the higher the service quality level is, the more satisfied the customers will be. However, it has to be noted that the relationship is not as strong as we expected. Previous researches (Caruana, 2002, Aryani and Rosinta, 2010) found stronger and significant relationship between these two constructs (0.45 and 0.406 respectively). Other researchers which focused on a similar setting (Arsanam and Yousapronpaiboon, 2014) found that two of service quality dimensions, which are assurance and empathy, are not correlated significantly with customer satisfaction. Another researcher used different service quality dimensions to predict patients' satisfaction (Padma, Rajendran, and Lokachari, 2010). They also found that some dimensions are not significantly related to the patients' satisfaction. Thus, in a hospital setting, the relationship between nurses' service quality and patient satisfaction is still considered as inconclusive. We also found that the level of patient satisfaction, while it can still be considered as good, was not as high as the other two constructs. The low value of R-squared also indicates that service quality provided by the nurses is not the main predictor of patient satisfaction.

Although this phenomenon can be directed into the future research, there is actually a logical explanation. The hospitals' customers, who are the patients, possess a unique characteristic compared to other service-based customers. Patients come to a certain hospital pursuing a specific condition, which is physical healing. Based on the follow-up interview we conducted to explain this phenomenon further, the main factor of the visiting decision is usually the reputation of the doctors who are working in said hospital. Thus, the patients go to a certain hospital in pursuit of a medical service by certain doctors, instead of the actual service quality provided by the hospital's

representatives, in this case, the nurses. The satisfaction is formed when the diseases are healed, which is done mostly by the expertise of the doctors. This is further amplified by the result of the mean analysis which indicates the higher level of product satisfaction, which includes the medicines and the hospital facilities. Even if the service quality performed by the nurses are high, it will only affect the satisfaction so much compared to the doctors' competency. Although the service quality cannot be said to be irrelevant, it only plays a small role in forming the patients' satisfaction.

**Managerial Implication.** Based on our findings, the strongest relationship is formed between OCB and nurses' service quality. Therefore, it is advised that hospitals focus on ways to enhance the nurses' OCB. Organ and Ryan (1995) stated that improving employee's job satisfaction is still the best mechanism in increasing their OCB level. Satisfied nurses will most likely possess better well-being, both physically and mentally (Mohammad, Habib, and Alias, 2011). This will later increase their affection towards the hospitals in which they are working for, creating the better attitude and behavior towards their co-workers. As Castro, Armario, and Ruiz (2004) stated, this behavior will be projected into the service mindset. Thus, the service climate within the hospitals is created (Schneider and Bowen, 1999).

There are various ways to increase job satisfaction. However, past researches (Hackman *et al.*, 1975, Smerek and Peterson, 2007) reported that the best predictor of job satisfaction is work itself. Although it is difficult to perform any change regarding the nurses' job, it is still advised to do various job redesigns to ensure that the nurses' affection to their job is maximized (Hackman and Oldham, 1980). Another findings by Smerek and Peterson (2007) suggested that focusing on the effective supervision and the senior management is another direction to follow in increasing employee's job satisfaction. According to our additional interview to the nurses conducted after the findings are concluded, this is a little bit difficult to be tampered as well. This is due to the nurses' culture of seniority. However, sufficient character-based training and clear job description should be able to be implemented to tackle this problem.

Our next findings suggested that the nurses' service quality plays a minor role in creating patients' satisfaction. However, it is best for hospitals as a part of service-based industry to try to increase their quality of service. This is due to its significant impact in improving the patients' satisfaction. Berry, Parasuraman, and Zeithaml (1994) suggested that improving the reliability of service in an organization is vital, since it is the core of service quality. Patients of private hospitals in Surabaya have high expectation, since the price to become inpatients is significantly higher than most public hospitals. Thus, when hospitals offered certain promises, it is expected to be delivered accordingly. The nurses need to be trained well in communicating such promises to the patients, and expected to perform as what was promised.

Although almost all patients agree that the service quality provided by the nurses is considered to be very good, there are rooms for improvement. In our post-research interview, the nurses did state the difficulty of communicating certain policy to the patients. One stated that some hospitals' distinct policies regarding the patients' financial status and payment guarantee often upset the patients, especially because it affects the speed of service in some hospital forms clearance for patients to become inpatients. Some complained about the amount of nurses in charge available to take care of the doctors' prescription, resulting in the longer waiting payment period for the patients. Based on these interviews, we conclude that apart from the nurses' possibility for improvement, some hospitals policies need to be adjusted. Thus, it is advised to the

hospitals to be more attentive towards the specific needs of inpatients, even during the post-stay period such as the payment and the medical pharmacy service waiting time.

## CONCLUSION

The nature of OCB, which is voluntary work above and beyond the job description provides better service quality. As the nurses strive to give their best towards both the hospitals and their co-workers, they project this behavior towards the patients as well, resulting in the better quality perceived by these patients. Thus, our results confirmed the findings of past researchers (Bell and Menguc, 2004, Djati and Adiwijaya, 2009), stating that in hospital setting, OCB has positive and significant relationship with service quality.

Our findings posit an interesting phenomenon, however, especially in the relationship between service quality and patients satisfaction. Although the result is significant, the relationship level is not as strong as previous researches such as Caruana (2002) and Aryani and Rosinta (2010). Based on our post-research interview, it is possible that the patients' satisfaction derived mostly from the fact that they are healed after visiting a hospital, and the reputation and competency of the doctors working in said hospital. Thus, it is advised to future researchers to delve into this phenomenon.

It has to be acknowledged that this research has several limitations. We use cross-sectional design for our data collection procedure, making the relationships projected in our findings difficult to determine whether they are impactful or not. This is due to the respondent screening design from the patients side. We only used inpatients as our respondents because they were experiencing the nurses' service at the moment. However, the sample can be broadened to both inpatients and patients who have the knowledge of the service provided by these hospitals. Thus, it is advised for future researchers to broaden the sample scope and use longitudinal design to approach these constructs and objects.

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