An Analysis on the Role of Trust on Nursing Team Contextual Performance

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Abstract

This study sought to examine the indirect relationship between team leaders’ transformational leadership, team support and team contextual performance via the mediating role of team trust. A total of 1436 individual nurses (300 nursing teams) from seven public healthcare institutions participated in this study. Data were collected using two sets of questionnaires which were distributed to the team leaders and team members. Individual responses were combined and data were then aggregated to the team level to get the team’s final score. Analysis of the hypotheses were done using Partial Least Squares (PLS) and results indicated that team trust mediates the relationship between perceived team support and team contextual performance ($\beta = 0.175$, $p<0.01$). Results from the mediation analysis also showed that team trust mediates the relationship between transformational leadership and team contextual performance ($\beta = 0.057$, $p<0.05$). The findings of this study proves that when nursing team members exhibit similar behaviours, they will feel more inclined to trust each other and perform better. In handling everyday activities in a hospital, nursing team members will demonstrate positive team behaviours that will accelerate performance.

Keywords: perceived team support; team contextual performance; team performance; transformational leadership; nursing.

INTRODUCTION

Studies involving team contextual performance have long concluded that team context plays an important role in sustaining teamwork and team functioning. More recently, team contextual performance has been explored to cover aspects of team conflict, team resilience and team trust (Costa, Passos, & Bakker, 2015; Meneghel, Salanova, & Martínez, 2016; Cheng & Cheng, 2017; Hughes, Rieting, Covin, Bouncken, & Kraus, 2018). Team contextual performance involves the activities that give impact to an organization’s social and psychological environment (Posthuma, Morgeson & Campion, 2002). Such activities include teammates helping behaviour, job dedication, and other reflective actions that can inculcate teamwork.
Team contextual performance usually reflects teamwork properties such as acceptance towards suggestions or criticisms, cooperation, communication, team spirit and morale, adaptability, coordination, and acceptance of suggestions or criticisms (McIntyre, & Salas, 1995). In addition, team contextual performance includes sets of interrelated thoughts, actions, and feelings of team members which are important to the team functioning (McIntyre, & Salas, 1995).

Teamwork behaviours explain contextual performance in ways that it (teamwork behaviours) supports the organizational, social, and psychological context in which team members have to perform (Stevens & Campion, 1999). Besides, teamwork reflects contextual performance because the former blends in teammates’ cooperation, camaraderie, and concern for unit morale, which in turn boosts team spirits and performance (Borman & Motowidlo, 1997). Overall, teamwork behaviours justify various aspects of team contextual performance and the latter is illustrated through five taxonomy dimensions: persisting with enthusiasm; volunteering; helping and cooperating; following organizational rules and procedures; and endorsing, supporting, and defending organizational objectives (Borman & Motowidlo, 1997).

High performing teams usually benefit from positive team leadership. Team leadership is an important aspect of team context as team leaders define team goals, develop, and structure the team in order to accomplish the team’s mission (Zaccaro, Rittman & Marks, 2001). One particular leadership style that has proven to inspire and motivate team members especially in nursing teams is transformational leadership style (Hutchinson & Jackson, 2013). Nursing team members perform their duties based on the way leaders’ communicate their directives and deal with followers’ responses and needs (Tannenbaum, Traylor, Thomas, & Salas, 2020; Hutchinson & Jackson, 2013).

In addition, team support acts as a positive enhancer in team context as it encourages members’ effort to achieve mission success (Drach-Zahavy, 2004). It is highly important for team members to have positive perception that other team members care for their well-being (perceived team support), so that they will continue to be motivated to pursue team success (Bishop, Scott & Burroughs, 2000). In fact, help and support from other members enhanced team performance. Nurses are not only performing for the patients, but they are an important source of support for the doctors (Cook, McIntyre, Recoche, & Lee, 2019). Therefore, this paper will focus on the
impact of these two contextual characteristics, perceived team support and transformational leadership, on nursing team contextual performance.

METHODOLOGY

This study was conducted among nursing teams located in hospitals in Peninsular Malaysia. 300 nursing teams were involved consisting of 1436 individual nurses. Data were aggregated at the team level similar to the procedure taken by Jayasingam, Ansari and Jantan (2010). Self-administered questionnaires were distributed to team leaders and team members in a non-fixed setting, with minimal contact between respondents and the researchers.

Measurements

Team contextual performance was measured through nine items following the works of Posthuma et al. (2002). Team support was measured via seven items taken from Bishop, et al. (2000). Transformational leadership was measured by a 15-item instrument adapted from Kanste, Miettunen and Kyngäs (2007), and nursing team trust was adapted from the Nursing Teamwork Survey Kanste et al. (2007). The composite reliability for all the items used were between 0.934 and 0.980.

Data Collection Procedure and Ethical Consideration

Self-administered questionnaires were distributed to 320 teams in two sets. One set was completed by the team members, and another set was given to their immediate supervisors. Since the unit of analysis for this study was team, aggregation of data was done to obtain the team’s final score following the work of Doolen, Hacker and Van Aken, (2006); Stamper and Masterson (2002).

In terms of protocol procedures, the Ministry of Health required all research involving medical personnel to be registered via the National Medical Research Register (NMRR). After successful registration [NMRR-13-1717-1698(IIR)], individual approvals were obtained from seven hospitals involved in this study. Their approvals were then submitted to NMRR to seek clearance from the Medical Research Ethics Committee (MREC). It took five months for approval to be granted. Following
the approval, all hospitals were re-contacted for data collection. The primary data collection for this study was conducted from January to June 2015.

Descriptive Statistics

The final sample for analysis involved 300 teams which consisted of 1439 individuals. Data was screened for missing values and outliers. After the removal of outliers, the final sample of respondents involved in this study was 1436. Besides missing values and outliers, data was also screened for common method bias. Table 1 outlines the composite reliability (CR) and average variance extracted (AVE) of the study.

Table 1: Composite reliability (CR) and average variance extracted (AVE)

<table>
<thead>
<tr>
<th>1. Construct</th>
<th>2. CR</th>
<th>3. AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Perceived team support</td>
<td>5.077</td>
<td>6.0859</td>
</tr>
<tr>
<td>7. Transformational leadership</td>
<td>8.090</td>
<td>9.0766</td>
</tr>
<tr>
<td>10. Team trust</td>
<td>11.034</td>
<td>12.0667</td>
</tr>
<tr>
<td>13. Team contextual performance</td>
<td>14.074</td>
<td>15.0807</td>
</tr>
</tbody>
</table>

Multivariate Analysis

Results from the analysis indicated that team trust mediated team context characteristics and team contextual performance. In particular, team trust mediated the relationship between perceived team support and team contextual performance ($\beta = 0.175, p<0.01$), and team trust was also found to mediate the relationship between transformational leadership and team contextual performance ($\beta = 0.057, p<0.05$).

VAF was computed to determine the strength of mediation (Hair, Ringle & Sarstedt, 2013). In this study, team trust explained 29.4% of variance in the relationship between perceived team support and team contextual performance, and 22.7% of variance in the relationship between transformational leadership and team contextual performance. Thus, based on the VAF percentages as recommended by Hair et al. (2013) (which are all above 20%), it can be concluded that team trust substantially mediates the relationship between the independent variables and the dependent variable. Table 2 outlines the VAF values of this study.
Table 2: Variance Accounted For (VAF)

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Indirect effect</th>
<th>VAF</th>
<th>VAF (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived team support -&gt; Team trust</td>
<td>0.175*</td>
<td>0.294</td>
<td>29.4</td>
</tr>
<tr>
<td>-&gt; Team contextual performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational leadership -&gt; Team</td>
<td>0.057*</td>
<td>0.227</td>
<td>22.7</td>
</tr>
<tr>
<td>trust -&gt; Team contextual performance</td>
<td></td>
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To ensure that the structural model has the capability to predict the data points of a construct, Q² values were calculated. The Q² values of this study ranged from 0.286 to 0.524 which proves that the structural model of this study has a substantially significant predictive relevance ranging from medium to large.

Besides Q², R² values were also computed to reflect the predictive ability of a structural model. The R² values of the structural model in this study range from 0.464 to 0.703, which indicates that the study’s model is fit. Next, the goodness of fit index (GoF) was computed through the geometric mean of the average communality of all constructs and the average R² of each endogenous variable. The GoF index value for this study is 0.627. Based on the baseline values proposed by Wetzels, Odekerken-Schröder and Van Oppen (2009), the GoF value obtained for this study is large. Thus, it can be concluded that the structural model is valid and relevant for this study.

DISCUSSION AND CONCLUSION

Team context is the surroundings in which a team operates. In this study, team context consists of perceived team support and transformational leadership. It is pivotal that members feel that they are being supported and that their leaders are reflecting transformational behaviours because these feelings will assure the team members that their well-being and interests are taken care of. The positive perceptions that team members have towards other members and their leaders will strengthen their sense of trust, which is important in task executions. Successful task executions will subsequently lead to better team performance. The result of this study showed that team members who perceive team support will reciprocate through team trust, which in turn, leads to greater contextual performance. This also means that the perception
team members have towards being supported increases their trust as they feel acknowledged and appreciated (White & Lean, 2008).

The finding of this study concurs with the nature of nursing teams in public hospitals. As public hospitals are becoming more crowded and overwhelmed with patients’ demands (Ahmad & Oranye, 2010), nursing teams must be able to support each other in handling medical situations. The findings of this study concerning the role of team trust in the relationship between transformational leadership and team contextual performance is in harmony with earlier studies done by Den Hartog (2003). These studies found that the perception that team members have towards their leaders’ transformational leadership style strengthen the feelings of team trust and further enhance contextual performance. This is because; team members will often turn to their leaders for sense of direction especially in making final decisions. Nurse members who are accustomed to each other will perform greatly over members who are not.

The finding of this study suggests that team members’ perception towards their team members’ support and leaders’ transformational leadership style will intensify team trust and thus elevate team performance. To nurse leaders, this finding can be useful for noting the acknowledgements team members have towards their leadership and the overall team support system. The findings also revealed several characteristics of transformational leaders that motivate team members, such as idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Kanste et al., 2007; Gabel, 2013). This information can be useful to public hospital administrators in developing a well-defined mentoring and leadership programs. Through mentoring programs, team members and team leaders can share knowledge and experience, while being updated with the current developments in the hospital. Other leadership programs that nurture team members to becoming aspiring leaders can also be developed. Mentoring and leadership programs support healthy leader-follower relationships and are beneficial to team’s productivity.

This study is not without limitations. Since this study examined certain types of team characteristics that predict contextual nursing team performance, future researchers might want to consider other aspects of team characteristics that may affect team performance in the healthcare setting, and other types of team leadership styles that may affect team trust and team contextual performance. Future studies should also
look at the associations between team characteristics and team task performance which is another aspect of team performance pivotal to the overall team functioning.

**Ethical consideration**
This study was registered with the National Medical Research Register (NMRR) by the Ministry of Health Malaysia [NMRR-13-1717-1698(IIR)].

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