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### Leader-Member Exchange Differentiation and Team Effectiveness among Malaysian Nurses: Team Potency as Mediator

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**Abstract:** This study examines how Malaysian leader and member in healthcare industry interpret and demonstrate leader-member relationships differentiation influence team effectiveness, operationalized as team satisfaction and team viability. Our sample of 475 staff nurses represented 92 wards in four hospitals. Results revealed that team potency mediates the relationship between leader-member exchange differentiation and team effectiveness. These findings validate our proposition of leader-member exchange differentiation in Malaysian healthcare industry and empirical support for the central roles of team potency as a socio-emotional process in workgroups.

**Keywords:** leader-member exchange (lmx) differentiation; team potency; team effectiveness; nurses

#### I. INTRODUCTION

In Malaysia nowadays has urged into an innovation led economy, it has turned into more significant to enrich the development of highly effective team to meet the desires of the Malaysia economic development cycle. Majority of companies in Malaysia have established environments or situation which allow for the progression of the ideal situations to encourage and facilitate teamwork between employer and employees [1]. In healthcare industry, realizing the potential negative impacts of turnover society's future health care needs as well as to the nation, it is believed that nurses must often work together, such that teamwork is an essential aspect of healthcare delivery. Higher effective team associated with better patient outcomes along with reduce turnover [2][3]. Several scholars have theorized that an effective team makes better quality decision and cope more effectively with complex task as well as better coordinate actions [3] [4] [5].

Furthermore, management should focus on employees' emotion especially about their work and personal relationships at workplace and on how leaders influence employees' performance. Indeed, success employees are the leader's priority goal. Besides, there have debated in leadership literature on theoretical

basis and empirical findings disputes that whether the different relationship between leaders and members of group support or lower team performance [6]. Several researchers have found out that the different relation between leaders and members can improve team effectiveness and inspires individual work quality [7] [8], while others have found it distresses cohesiveness and team spirit among team members [9] [10] [11], and thus, team effectiveness [12]. LMX differentiation research still remains limited, its empirical proof is unclear with respect to whether LMX differentiation supports or hurts team performance, and very little is known about when LMX differentiation increases group performance [6]. In healthcare perspective, without support from superior, nurses may experience negative feelings such as depression and burnout, which will affect their performance.

In leadership literature, it is well known that leaders build different relationships with members within a team. This is partly because internal selection process and competition for limited resources and opportunity (eg. promotions) require that leaders make distinctions among their members. In the nursing context, hospital nurses who work in teams are tending to compare their inputs and outputs with their colleagues to get a sense of relative position within the group and this position affects their attitudes and subsequent behavior, particularly on their perception of fairness [13].

The purpose of this paper is to suggest a mediation model for LMX differentiation and team effectiveness relationships by integrating input-process-output (IPO) team research model [14]. This study proposed team potency will mediate the relationship between LMX differentiation and team effectiveness. The paradigm for linking LMX differentiation and team effectiveness is the IPO model [14], wherein LMX differentiation is the “input” and team effectiveness is the “output”. The “process” describes how “input” is transformed to “output”, including social interaction (eg., cooperation, communication, shared belief) [15] [16]. Team potency represents key aspects of socio-emotional mechanisms; they capture interpersonal interactions among group members as well as the affective component and cognitive belief of group members. Team potency referred as shared confidence in a team’s general capabilities [17][18] and one of the most important ingredients of team motivation and team effectiveness [19]. Team potency refers to the team’s overall performance in different areas rather than its capacity to carry out a specific task [20] [21]. We focused on team potency in this study because nursing teams perform different types of tasks and are often engaged in multiple team processes at the same time [22]. Therefore, team potency may be a crucial intervening process that might explain the negative association between LMX differentiation and team effectiveness.

## **II. LITERATURE REVIEW**

### **(A) Team Effectiveness**

In this study, team effectiveness is divided on two categories; team satisfaction and team viability based on model developed by Hackman [23]. Team satisfaction refers to positively member’s feeling about other members in a team. As stated by Hackman [23], “team members should like other members or else the emotional cost to frustrated members likely outweighs the benefits of being in a team”. Team viability represents as members’ intention to stay in a team, which a condition needed for beneficial team functioning over time [24]. Effective teamwork use interaction processes that at least retain members’ ability or desire to perform subsequent tasks together [23]. Group interaction that frustrates members can results in the

team burning itself up, leaving members unwilling to continue working together in the future. This is particularly problematic in the organizational context, where teams can be long-term or individuals remain in the organization and are expected to potentially meet other group members in future teams.

### **(B) Leader-member Exchange Differentiation**

LMX refers as leader and member relationship quality based on trust, respect, and obligations [25]. However, the concept of LMX has found that leaders develop different LMX relationships among their followers [26]. This is a practice referred to as LMX differentiation [27]. By definition, it is popularly accepted that LMX differentiation is a team-level model [27] [28] [29], which refers to a level to which members working with a same leader vary in terms of LMX relationship quality with their leader [30]. Some researcher had studied it from individual level, conceptualized as the amount of variability in LMX relationships perceived by team members [9]. However, within our study on LMX differentiation, we argue that it occurs on a team-level because it depicts the level to which leader-member relationships within a work group differ [30].

### **(C) Team Potency**

Team potency refers to team members' shared beliefs about their collective capabilities of the team across tasks and context [17]. Team potency also is a critical motivational state in teams [31]. Even though there are similarities between team potency and collective efficacy [32], potency refers to beliefs in generalized team capability for achieving general effectiveness [18], whereas collective efficacy is task specific [33]. It is possible that efficacy and potency can exhibit differential relationships with performance. For example, members of an engineering team might believe that they can design a specific new product (high team-efficacy) but might not believe that they can effectively produce, market, and sell the product (low potency). The predictive utility of team-efficacy and potency thus may differ depending on prediction of performance on a specific task or generalized performance.

### **(D) Theoretical background and proposition development**

With rising interest in highlighting the purpose of study teams for organizational effectiveness, understanding the significance of different leader-member exchanges (LMX) for team processes and outcomes has become increasingly important because LMX relationships operate on a social network boundary that influences other exchange relationships within work teams [27] [34] [35]. The study of LMX has proven to be rich leadership approach over the past several decades [6] [25] [36]. LMX is an alternative approach to understanding a leaders' influence on by focusing on dyadic or paired relationship between leaders and each of their subordinates [37].

The LMX model suggests that leaders do not use the same style or set of behaviors uniformly across all members. Instead, unique relationship exchange develops with each employee that remains relatively stable over time. These exchanges range from low to high quality. Employees with high-quality exchanges have been referred to as in the "in-group" and those with low-quality exchanges as in the "out-group." When the relationship between a leader and a subordinate is of high quality (rather than low-quality), subordinate will receive better performance evaluations [38] [39], more promotions [40] more mutual trust, liking, respect and reciprocal influence [37] [41], better objective performance [42], less turnover [43], and several beneficial consequences for both themselves and the organizations [44].

Although these results are compelling, LMX research has largely overlooked group-level differentiation in LMX relationships, which is naturally embedded in the phenomenon of LMX [30]. Accordingly, House and Aditya [45] note that the majority of LMX studies have tended only to look at the relationships between high-quality LMX relationships and employee work outcomes from an individual perspective [46]. Therefore, research examining the LMX differentiation within work teams has not been thoroughly investigated [30] [46] [47].

According to Cashman, Dansereau, Graen, and Haga [48], some members are implicitly placed on paths to termination and others on paths to organizational assimilation through the development of LMX. When a leader orients different members on different pathways, the leader is differentiating the treatment of these members and defining relationships with them as in-groups or out-groups. Furthermore, work groups also could differ in the degree to which the quality of the in-group and out-group relationship varies within the group. Thus, by definition, LMX differentiation refers to the degree of within-team variability in the quality of LMX relationships between a leader and members within a work team [26]. Past research has revealed that employees are conscious of their relative standing in a set of differentiated LMX relationships in their work team [35] [47].

In the context of individual level, high-LMX (in-group) members will produce better performance compare to low-LMX (out-group) members. However, from group level, the differentiation of LMX among members in a team consequently impact on team effectiveness. Therefore, the degree of within-team LMX differentiation is present in the vast majority of work teams and has been noted as playing a crucial function in shaping team processes and outcomes [49] [50]. When a leader differentiates, the varied levels of LMX relationships operating within the work team are likely to influence the way members react to other members for achieving team performance and in turn impacts their satisfaction with the group as a whole [50] [27].

The present study by Choi [7] postulates that high LMX differentiation hurts team effectiveness because it lowers team potency which refers to group members' shared belief that group members as a whole can be effective [51]. Team potency represents as key of socio-emotional mechanism that capture interpersonal and interactions among group members as well as the effective component and cognitive belief of group members. Due to LMX status differences within a group, high LMX differentiation may lead to self-efficacy divergence in a work group, which in turn inhibits group members' shared perceptions of their effectiveness as a group and subsequently decreases their performance, satisfaction and intention to work together [11].

Accordingly, at the group level, highly diverse LMX relationships may ultimately engender self-efficacy divergence among members. As LMX relationship qualities differ among members, their levels of self-efficacy may diverge. Supporting this prediction, previous studied [11] found that high self-efficacy divergence in a work group and low collective efficacy mediate the negative relationship between differential leadership measured by group members and group effectiveness. Collective efficacy is closely related to team potency and defined as "a group's shared belief in its conjoint capabilities to organize and execute the course of action required producing given levels of attainments [32].

Moreover, team potency in one of the commonly researched constructs as the antecedent of team effectiveness [52] [53]. Team potency also can be generated relatively primary in the group creation process

and can have positive effects on group outcomes [52]. For example, members in a team will be successful no matter what the task is given. Teams should have a high sense of potency or belief that they can be effective. Conceptually, group potency is considered to capture broader perceptions and more generalized beliefs concerning group capability and group effectiveness on any tasks and jobs [54] [53]. Based upon these empirical findings, therefore, we expect:

*Hypothesis 1: LMX differentiation is related to team potency*

*Hypothesis 2: LMX differentiation and team potency is related to team effectiveness*

*Hypothesis 3: Team potency will mediate the relationship between LMX differentiation and team effectiveness*

### III. METHODOLOGY

#### (A) Sample and Procedure

Respondents in this study comprise of staff nurses and sisters (immediate supervisor) who are working in four general hospitals in Peninsular Malaysia. Normally, work nature for any ward in Malaysian hospitals consists of team lead by sister and staff nurse as a member. Therefore, unit of analysis of this study is a team which is involve of hospital ward. The sample included nurses who work in a variety of specialized units including cardiology, surgery, pediatrics, neurology, and emergency medicine.

In this study, staff nurses and sister were asked to evaluate their relationship between each other. Consistent with the minimum time period typically needed to develop a mature workplace relationship, our sample excluded sisters who had been in the position for less than 6 months, and staff nurses who had been in their hospital ward for less than 6 months [25]. This ensured that both were sufficiently familiar with each other and had developed exchange relationships.

The questionnaires were distributed to selected staff nurses (475) and sisters (95), across 95 hospital wards. Each questionnaire was coded with a researcher-assigned identification number to match staff nurses and sisters. To ensure confidentiality, the participants were asked to seal the completed questionnaires in the return envelopes and return them directly to the researchers.

The usable sample was composed of 413 staff nurses belonging to 86 wards and 86 sisters, giving a response rate of 87 percent to staff nurses and 91 percent to sisters, respectively. The number of respondents per team ranged from three to five, with an average of four respondents per team. To examine possible sampling bias, we compared sample means for the usable cases and those cases dropped due to unmatched questionnaires for all study variables. Our analysis of variance procedures did not yield any significant different means for the two groups, indicating little sample bias.

#### (B) Measures

All scales were measured with a 5-point Likert-type scale (1 = strongly disagree, 5 = strongly agree).

Leader-member exchange differentiation. The member's perception of leader-member exchange was assessed with the LMX-MDM developed by Liden and Maslyn [55] using twelve items measure. Whereas to assess leader-rated leader-member exchange, the researchers used the SLMX-MDM developed by Greguras and Ford [56] based on LMX-MDM and also consists of twelve items measurement. The complete

questionnaires will then pair between the subordinate's questionnaire and that of his or her immediate supervisor to form a dyad. Then, LMX differentiation for each group will measure by subtracting the mean individual-level LMX score for each team from each individual team members' LMX scores [38] [57].

Team potency. Team potency will be measure via the self-report method with items examining individual members' perception of team potency. The scale for team potency consisted of three items was developed by Campion *et al.* [17].

Team effectiveness. Team effectiveness was measure by team satisfaction and team viability by member ratings. This is also consistent with the team effectiveness models developed by Hackman [23]. Team satisfaction was measured with seven items developed by Doolen [58] and Van der Vegt, Emans and Van De Vliert [59]. A scale of constructed by Hackman [23] which consisted seven items was used to measure team viability.

Control variables. Following Spector and Brannick's [60] suggestion, we controlled for the following variables to test the hypotheses. First, group size and team tenures (in years) were controlled because these variables are potentially related to team effectiveness [27] [61]. We measured team tenure as the logged average number of years that team members had been member of team, while team size is measured by the logarithm of the number of team members.

### **(C) Level of Analysis Aggregation**

As we operationalized the constructs at the team level, we aggregated nurses' responses on the scales to compute single score for each team. We used within-group interrater reliability (rwg) [62] and intraclass correlation coefficient [ICC (1) and ICC (2); 63] to examine the appropriateness of aggregation. All indices of mean rwg, ICC (1) and ICC (2) for LMX (rwg = 0.96, ICC (1) = 0.51, ICC (2) = 0.82,  $F(91,1012) = 13.59$ ,  $p < 0.01$ ), team potency (rwg = 0.97, ICC (1) = 0.24, ICC (2) = 0.86,  $F(91,552) = 3.18$ ,  $p < 0.01$ ), and team effectiveness (rwg = 0.92, ICC (1) = 0.35, ICC (2) = 0.90,  $F(91,552) = 9.98$ ,  $p < 0.01$ ) indicated acceptable agreement because rwg was greater than 0.70 and because ICC (1) was above 0.12. Accordingly, these indices support the aggregation of individual ratings to create group scores.

### **(D) Confirmatory Factor Analysis**

Using confirmatory factor analysis (CFA) at the team level of analysis, we assessed factor model using all measures obtained from team members including LMX differentiation, team potency and team effectiveness. Using the maximum likelihood method, we computed parameter estimates using structural equation modeling (SEM). The model yielded a good overall fit to the data, the chi-square ( $\chi^2$ ) = 135.96,  $p$ -value = 0.000, comparative fit index (CFI) = 0.96, Tucker-Lewis Non-normed fit index (TLI) = 0.96, goodness of fit index (GFI) = 0.86, adjusted goodness of fit index (AGFI) = 0.83, and root mean square error of approximation (RMSEA) = 0.058 were in the range of an accepted level [64] [65] and the factor loading for each item on its corresponding construct was significant at the 0.05 level.

## **IV. ANALYSIS**

Table 1 provides the means, standard deviations and correlations for the study variables. The zero-order correlation indicated that LMX differentiation was found to be significantly negatively correlated to team

potency ( $r = -0.354, p < 0.01$ ) and team effectiveness ( $r = -0.648, p < 0.01$ ). Moreover, team potency was found to be positive relationship with team effectiveness ( $r = 0.262, p < 0.01$ ). In addition, an analysis of the variance inflation factors (VIFs) indicated the VIFs in all models to be lower than 10. Thus, all variables could be maintained in the regression analysis [66].

**Table 1**  
**Descriptive Statistics**

<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Team size	4.51	0.58	1				
Team tenure	4.66	0.59	0.115*	1			
LMX differentiation	0.75	0.33	0.105	0.017	1		
Team potency	3.77	0.34	0.222*	0.400*	-0.354**	1	
Team effectiveness	3.97	0.42	-0.168*	0.143*	-0.648**	0.262**	1

Note: \* $p < 0.05$ ; \*\* $p < 0.01$

### **(A) Hypotheses Results**

Our model proposed three of hypotheses: (1) direct effects of LMX differentiation on team potency; (2) direct effects of LMX differentiation and team potency on team effectiveness and (3) the mediating role of team potency in the LMX differentiation – team effectiveness relationship. We test Hypothesis 1 and hypothesis 2 by using a hierarchical regression technique. Demographic variables such as team size and team tenure were statistically controlled. As shown in Table 2, based on Model 1, the control variables accounted for 10.4% of the variance in team potency ( $r^2 = 0.104, F\text{-change} = 12.293, p < 0.01$ ). Two control variables; team size and team tenure were significantly related to team potency ( $\beta = -0.202, p < 0.01$ ;  $\beta = 0.236, p < 0.01$ ). On adding LMX differentiation based on Model 2, the  $R^2$  increased to 0.202. This indicated that LMX differentiation was able to explain an additional of 9.8% ( $r^2\text{-change} = 0.098, p < 0.01$ ) of the observed variations on team potency. LMX differentiation was significantly and negatively related to team potency ( $\beta = -0.316, p < 0.01$ ), thereby supporting Hypothesis 1. This indicated that high differentiation of LMX will decrease team potency.

Based on model 3, the control variables accounted for 1.7% ( $r^2 = 0.017, p > 0.01$ ). However, the results show that team size ( $\beta = -0.028, p > 0.01$ ) and team tenure ( $\beta = -0.124, p > 0.01$ ) were not related to team effectiveness. This indicates that these two control variables were not influence team effectiveness. However, in Model 4, by adding LMX differentiation and team potency, the  $R^2$  increased to 0.088. This result shows that the predictor variables were able to explain addition 7.1% of the variance related to team effectiveness ( $r^2\text{-change} = 0.071, p < 0.01$ ). The results indicated that LMX differentiation ( $\beta = -0.237, p < 0.01$ ) and team potency ( $\beta = 0.441, p < 0.01$ ) were significantly related to team effectiveness. Thus, Hypothesis 2 was supported.

Next, we used PROCESS macro in SPSS version 21.0 [67] to test Hypothesis 3. Zhao, Lynch, and Chen [68] have recommended that researchers test mediation effects by using indirect effect approach. The PROCESS macro is preferable to Sobel’s test because the PROCESS macro estimates indirect effects by bootstrapping, which mitigates the problem of a non-normality violation of the indirect effect [69].

According to Table 3, after controlling team size and team tenure, LMX differentiation was negatively associated with team effectiveness ( $b = -0.618, p < 0.01$ ), and team potency was positively associated with team effectiveness ( $b = 0.443, p < 0.01$ ). However, after team potency was taken into account, the effect of LMX differentiation became weaker and significant ( $b = -0.781, p < 0.01$ ), yielding an indirect effect on team effectiveness (0.162). This suggests partial mediation. Bootstrap results showing that confidence interval (CI) for the indirect effect did not include zero (95% bootstrap CI [0.105, 0.229],  $p < 0.05$ ), supporting a statistically significant indirect effect. Taken together, Hypothesis 3 was supported.

**Table 2**  
**Regression Summary for Direct Relationship**

Predictors	Team potency		Team effectiveness	
	Model 1	Model 2	Model 3	Model 4
Step 1: Control variable				
Team size	-0.202**	-0.172**	-0.028	0.010
Team tenure	0.236**	-0.208**	-0.124	-0.085
Step 2: Predictor variable				
LMX differentiation		-0.316**		-0.237**
Team potency				0.441**
$r^2$	0.104	0.202	0.017	0.088
Adjusted $r^2$	0.096	0.191	0.007	0.071
$r^2$ -change	0.104	0.098	0.017	0.071
F-change	12.293**	25.792**	1.791	8.232**

Note: \* $p < 0.05$  \*\* $p < 0.01$

**Table 3**  
**Regression Summary for Mediation**

Variables	Direct, indirect and total effects				Bootstrap for indirect effect
	$\beta$	SE	t	p	
Team effectiveness regressed on LMX differentiation (path c)	-0.618	0.060	-10.210	0.000	Effect = 0.162
Team potency regressed on LMX differentiation (path a)	-0.366	0.077	4.706	0.000	Boot SE = 0.031
Team effectiveness regressed on team potency, controlling for LMX differentiation (path b)	0.443	0.047	9.327	0.000	LL95% CI= 0.105
Team effectiveness regressed on LMX differentiation, controlling for team potency (path c')	-0.781	0.052	-14.770	0.000	UL95% CI= 0.229

Notes: Control variables include team size and team tenure; Boot SE= bootstrapped standard error; LL = lower limit; UI = upper limit; CI= confidence interval. Bootstrapped sample size = 5000



## V. DISCUSSIONS

Hypothesis 1 suggests that LMX differentiation has negatively influence team potency ( $\beta = -0.316, p < 0.01$ ). Thus, Hypothesis 1 was supported. In other words, higher levels of LMX differentiation are predictive of lower levels of team potency. This result is similar with previous finding by Choi [7]. Hypothesis 2 suggests that team potency would be positively related to team effectiveness. Team potency was found to be significant positive related to team effectiveness ( $\beta = 0.159, p < 0.05$ ). Thus, hypothesis 2 was supported. In other words, higher levels of team potency are predictive of higher levels of team effectiveness. These findings are similar to previous research [52] who found positive relationships between potency and team effectiveness. Finally, the findings showed that the relationship between LMX differentiation and team effectiveness was partially mediated by team potency (Hypothesis 3). The findings are consistent with those of previous studies [11] which found collective efficacy mediate the negative relationship between differential leadership measured by group members and group effectiveness. According to the IPO models of team research framework, team input acts on team processes, thereby affecting team outcome. More specifically, high LMX differentiation challenges delegation and social harmony in groups [70] [71], which is likely results to disagreements about team relations, such as reducing shared belief. LMX differentiation makes the group members engage in social comparison processes, which in turn affects individual attitudes and behaviors [47]. Considering that group members have social and developmental needs when developing LMX relationships with the leader [72], this LMX status difference within a group may be detrimental to maintaining their socio-emotional bonds within a group. Specifically, high LMX differentiation may lead to self-efficacy divergence in a work group, which in turn inhibits group members' shared perceptions of their effectiveness as a group and subsequently decreases their satisfaction and intention to work together [11].

### (A) Theoretical and Practical Implications

This study attempts to make several theoretical and practical contributions. This research will contribute to team and leadership literature by examining how leaders differentiate among group members in order to be an effective team particularly in Malaysian context. Even though the theoretical and practical bases of LMX differentiation have been made explicit literature, current LMX research has not yet been clear about LMX differentiation and team effectiveness relationship [46] [27].

Besides, this research will contribute knowledge and evidence on the importance of team performance in order to deliver of quality care of patients. According to Kalisch and Lee [73] indicated that the importance of teamwork among nurses has been little understood and largely ignored. This study provides evidence that teamwork is critical for the provision of quality nursing care. Furthermore, nurses involve in a wider range of behavior that are more flexible and promotes overall quality care [74]. Likewise, sisters (immediate supervisor) should provide a quality of relationship equally to all nurses under their supervision so that it will increase their work performance and consequently might affect their quality care to their patients.

The findings also suggest that Malaysian Ministry of Health (MOH) must look over the human resource development policies aimed at improving the psychological resource among nurses in term of training and information system, which enables them to manage efficiently with any situation. Nurses who have strong teamwork between each other, they are believed to present better their works and provide quality of care to the patients and will reduce medical error as well. Hence, this research expects to provide information and evidence regarding important of teamwork among nurses in public hospitals.

Besides, this study hope that the high relationship between sisters and staff nurses and high cooperative communication among peers will lead to team effectiveness and consequently lead to higher service quality. It would be worthwhile for the Malaysian Ministry of Health and nursing management to provide more training and mentoring programs for sister to encourage a greater range of support to their staff nurses and develop strong networks among themselves. This will enable the sisters to provide greater support in terms of showing concern for staff nurses' feelings and needs, providing help and information, and providing constructive feedback. Appropriate amounts of supervisory support to nurses will enable them to become more engaged in their work.

### **(B) Limitations and Future Directions**

Similar to other studies, this study also has some limitations. This study focused on theorizing team potency as key variable in LMX differentiation-team effectiveness relationship and believes team potency is mechanism that could influence the relationship. Future research can consider comparing and contrasting the relative importance of potential mediators such as team coordination, cooperative communication, or team conflict in order to advance our understanding of the precise mechanism that explain the relationship between LMX differentiation and team effectiveness well. In addition, this study is limited to nurses who are working in four general hospitals only which limits generalizability. The same research could be expanded among other health-care employees from public and private hospitals. A larger sample in the same industry would improve the generalization of the findings.

## **VI. CONCLUSIONS**

It can be concluded that teamwork in healthcare industry is widely recognized as an important factor in providing high quality patient care. This study also developed understanding on how LMX differentiation related to team effectiveness among nurses in Malaysian public hospital. Our finding indicated that team process mechanism such as team potency serves as a socio-emotional process to influence LMX differentiation and team effectiveness relationship.

## **REFERENCES**

- Malaysia Productive Corporation (2017), Productivity report 2016/2017.
- DiMeglio, K., Padula, C., Piatek, C., Korber, S., Barrett, A., Ducharme, M., & Corry, K. (2005), "Group Cohesion and Nurse Satisfaction: Examination of a Team Building Approach." *Journal of Nursing Administration*, 35, No. 3, pp. 110-120.
- Valentine, M. A., Nembhard, I. M., & Edmondson, A. C. (2015), "Measuring teamwork in health care settings: a review of survey instruments." *Medical care*, 53, No.4, pp. 16-30.
- Maciejovsky, B., Sutter, M., Budescu, D. V., & Bernau, P. (2013), "Teams make you smarter: How exposure to teams improves individual decisions in probability and reasoning tasks." *Management Science*, 59, No. 6, pp. 1255-1270.
- Grumbach, K., & Bodenheimer, T. (2004), "Can health care teams improve primary care practice?" *Jama*, 291, No.10, pp. 1246-1251.
- Anand, S., Hu, J., Liden, R. C., & Vidyarthi, P. (2011), Leader-member exchange: Recent research findings and prospects for the future. In A. Bryman, D. Collinson, K. Grint, B. Jackson, & M. Uhl-Bien (Eds.), *The Sage Handbook of Leadership* (pp.311-325), Sage, Thousand Oaks, CA.

- Choi, D. (2013), "Differentiated leader-member exchange and group effectiveness: A dual perspective." (Doctoral Dissertation).
- Halevy, N., Chou, E. Y., & Galinsky, A. D. (2011), "A functional model of hierarchy: Why, how, and when vertical differentiation enhances group performance." *Organizational Psychology Review*, 1, pp. 32-52.
- Hooper, D. T., & Martin, R. (2008), "Beyond personal leader-member exchange (LMX) quality: The effects of perceived LMX variability on employee reactions." *The Leadership Quarterly*, 19, No.1, pp. 20-30.
- Scandura, T.A. (1999), "Rethinking leader-member exchange: An organizational justice perspective." *The Leadership Quarterly*, 10, No.1, pp. 25-40.
- Wu, J.B., Tsui, A.S., & Kinicki, A.J. (2010), "Consequences of differentiated leadership in groups." *Academy of Management Journal*, 53, pp. 90-106.
- Beal, D. J., Cohen, R. R., Burke, M. J., & McLendon, C. L. (2003), "Cohesion and performance in groups: A meta-analytic clarification of construct relations." *Journal of applied psychology*, 88, No.6, pp. 989.
- Omilion-Hodges, L. M., & Baker, C. R. (2013), "Contextualizing LMX within the workgroup: The effects of LMX and justice on relationship quality and resource sharing among peers." *The Leadership Quarterly*, 24, No.6, pp. 935-951.
- McGrath, J. E. (1984), *Groups: Interaction and performance*, Vol. 14, Prentice-Hall, Englewood Cliffs, NJ.
- Lorinkova, N. M., Pearsall, M. J., & Sims, H. P. (2013), "Examining the differential longitudinal performance of directive versus empowering leadership in teams." *Academy of Management Journal*, 56, No.2, pp. 573-596.
- Marks, M.A., Zaccaro, S.J., & Mathieu, J.E. (2000), "Performance implications of leader briefings and team-interaction training for team adaptation to novel environments." *Journal of Applied Psychology*, 85, No.6, pp. 971-986.
- Campion, M. A., Medsker, G. J., & Higgs, A. C. (1993), "Relations between work group characteristics and effectiveness: Implications for designing effective work groups." *Personnel Psychology*, 46, No.4, pp. 823-847.
- Guzzo, R. A., Yost, P. R., Campbell, R. J., & Shea, G. P. (1993), "Potency in groups: Articulating a construct." *British Journal of Social Psychology*, 32, No.1, pp. 87-106.
- Hu, J.I.A., & Liden, R. C. (2011), "Antecedents of team potency and team effectiveness: an examination of goal and process clarity and servant leadership." *Journal of Applied Psychology*, 96, No.4, pp. 851.
- Mathieu, J., Maynard M.T., Rapp T. & Gilson L. (2008), "Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future." *Journal of Management*, 34, pp. 410-476.
- Ortega, A., Sanchez Manzanares, M., Gil, F., & Rico, R. (2013), "Enhancing team learning in nursing teams through beliefs about interpersonal context." *Journal of Advanced Nursing*, 69, No.1, pp. 102-111.
- Al-Homayan, A. M., Shamsudin, F. M., Subramaniam, C., & Islam, R. (2013), "Impacts of job demands on nurses' performance working in public hospitals." *American Journal of Applied Sciences*, 10, No.9, pp. 1050.
- Hackman, J. R. (1987), *The design of work teams*. In J. Lorsch (Eds.), *Handbook of organizational behavior* (pp. 315-342), Prentice Hall, New York.
- Balkundi, P., & Harrison, D. A. (2006), "Ties, leaders, and time in teams: Strong inference about network structure's effects on team viability and performance." *Academy of Management Journal*, 49, No.1, pp. 49-68.
- Graen, G. B., & Uhl-Bien, M. (1995), "Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective." *Leadership Quarterly*, 6, pp. 219-247.
- Erdogan, B., & Liden, R. C. (2002), "Social exchanges in the workplace." *Leadership*, pp. 65-114.
- Liden, R.C., Erdogan, B., Wayne, S. J., & Sparrowe, R.T. (2006), "Leader-member exchange, differentiation, and task interdependence: implications for individual and group performance." *Journal of Organizational Behavior*, 27, No. 6, 723-746.
- Boies, K., & Howell, J. M. (2006), "Leader-member exchange in teams: An examination of the interaction between relationship differentiation and mean LMX in explaining team-level outcomes." *The Leadership Quarterly*, 17, No.3, pp. 246-257.

- Naidoo, L. J., Scherbaum, C. A., Goldstein, H. W., & Graen, G. B. (2011), "A longitudinal examination of the effects of LMX, ability, and differentiation on team performance." *Journal of Business and Psychology*, 26, No. 3, pp. 347-357.
- Ma, L., & Qu, Q. (2010), "Differentiation in leader-member exchange: A hierarchical linear model." *Leadership Quarterly*, 21, No. 5, pp. 733-744.
- Chen, G., & Kanfer, R. (2006), "Toward a systems theory of motivated behavior in work teams." *Research in organizational behavior*, 27, pp. 223-267.
- Bandura, A. (1997), *Self-efficacy: The exercise of control*, Macmillan.
- Gibson, C. B., & Earley, P. C. (2007), "Collective cognition in action: Accumulation, interaction, examination, and accommodation in the development and operation of group efficacy beliefs in the workplace." *Academy of management review*, 32, No.2, pp. 438-458.
- Sui, Y., Wang, H., Kirkman, B. L., & Li, N. (2016), "Understanding the curvilinear relationships between LMX differentiation and team coordination and performance." *Personnel Psychology*, 69, No.3, pp. 559-597.
- Tse, H.H.M., Ashkanasy, N.M. & Dasborough, M.T. (2012), "Relative leader-member exchange, negative affectivity, social identification: A moderated-mediation examination." *Leadership Quarterly*, 23, No.3, pp. 354-366.
- Hu, J. I. A., & Liden, R. C. (2013), "Relative leader-member exchange within team contexts: How and when social comparison impacts individual effectiveness." *Personnel Psychology*, 66, No.1, pp. 127-172.
- Dansereau, F., Graen, G., & Haga, W. J. (1975), "A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process." *Organizational behavior and human performance*, 13, No.1, pp. 46-78.
- Graen, G., Novak, M. A., & Sommerkamp, P. (1982), "The effects of leader-member exchange and job design on productivity and satisfaction: Testing a dual attachment model." *Organizational behavior and human performance*, 30, No.1, pp. 109-131.
- Mansueti, N., Grandi, M. G., & Grazio, A. (2016), "The Leader Member Exchange (Lmx) in Organizational Health Context. Observational Study at the Department of Rehabilitation." *International Journal*, 4, No.1, pp. 1-38.
- Dulebohn, J.H., Bommer, W.H., Liden R.C., Brouer R.L., & Ferris, G.R. (2012), "A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future." *Journal of Management*, 38, No. 6, pp. 1715-1759.
- Martin, R., Guillaume, Y., Thomas, G., Lee, A., & Epitropaki, O. (2016), "Leader-member exchange (LMX) and performance: A meta analytic review." *Personnel Psychology*, 69, No.1, pp. 67-121.
- Schwepker Jr, C. H. (2016), "Servant leadership, distributive justice and commitment to customer value in the salesforce." *Journal of Business & Industrial Marketing*, 31, No.1, pp. 70-82.
- Palanski, M., Avey, J. B., & Jiraporn, N. (2014), "The effects of ethical leadership and abusive supervision on job search behaviors in the turnover process." *Journal of Business Ethics*, 121, No.1, pp. 135-146.
- Breevaart, K., Bakker, A. B., Demerouti, E., & van den Heuvel, M. (2015), "Leader-member exchange, work engagement, and job performance." *Journal of Managerial Psychology*, 30, No.7, pp. 754-770.
- House, R. J., & Aditya, R. N. (1997), "The social scientific study of leadership: Quo vadis?" *Journal of management*, 23, No. 3, pp. 409-473.
- Tse, H.H.M. (2014), "Linking leader-member exchange differentiation to work team performance." *Leadership & Organization Development Journal*, 35, No. 8, pp. 710 – 724.
- Vidyarthi, P. R., Liden, R. C., Anand, S., Erdogan, B., & Ghosh, S. (2010), "Where do I stand? Examining the effects of leader-member exchange social comparison on employee work behaviors." *Journal of Applied Psychology*, 95, No. 5, pp. 849.
- Cashman, J., Dansereau, F., Graen, G., & Haga, W. J. (1976), "Organizational understructure and leadership: A longitudinal investigation of the managerial role-making process." *Organizational Behavior and Human Performance*, 15, No. 2, pp. 278-296.

- Henderson, D. J., Liden, R. C., Glibkowski, B. C., & Chaudhry, A. (2009), "LMX differentiation: A multilevel review and examination of its antecedents and outcomes." *The leadership quarterly*, 20, No.4, pp. 517-534.
- Le Blanc, P. M., & González-Romá, V. (2012), "A team level investigation of the relationship between Leader–Member Exchange (LMX) differentiation, and commitment and performance." *The Leadership Quarterly*, 23, No. 3, pp. 534-544.
- Shea, G. P., & Guzzo, R. A. (1987), "Groups as human resources." *Research in Personnel and Human Resources Management*, 5, pp. 323-356.
- Lee, C., Farh, J. L., & Chen, Z. J. (2011), "Promoting group potency in project teams: The importance of group identification." *Journal of Organizational Behavior*, 32, No. 8, pp. 1147-1162.
- Stajkovic, A. D., Lee, D., & Nyberg, A. J. (2009), "Collective efficacy, group potency, and group performance: meta-analyses of their relationships, and test of a mediation model." *Journal of Applied Psychology*, 94, No. 3, pp. 814.
- Gully, S. M., Incalcaterra, K. A., Joshi, A., & Beaubien, J. M. (2002), "A meta-analysis of team-efficacy, potency, and performance: interdependence and level of analysis as moderators of observed relationships." *Journal of Applied Psychology*, 87, No. 5, pp. 819.
- Liden, R. C., & Maslyn, J. M. (1998), "Multidimensionality of leader-member exchange: An empirical assessment through scale development." *Journal of management*, 24, No.1, pp. 43-72.
- Greguras, G. J., & Ford, J. M. (2006), "An examination of the multidimensionality of supervisor and subordinate perceptions of leader member exchange." *Journal of Occupational and Organizational Psychology*, 79, No.3, pp. 433-465.
- Henderson, D. J., Wayne, S. J., Shore, L. M., Bommer, W. H., & Tetrick, L. E. (2008), "Leader—member exchange, differentiation, and psychological contract fulfillment: a multilevel examination." *Journal of Applied Psychology*, 93, No. 6, pp. 1208.
- Doolen, T. L. (2001), "The impact of organizational context on work team effectiveness: A study of production and engineering teams" (Doctoral dissertation).
- Van Der Vegt, G., Emans, B., & Van De Vliert, E. (2000), "Team members' affective responses to patterns of intragroup interdependence and job complexity." *Journal of Management*, 26, No.4, pp. 633-655.
- Spector, P. E., & Brannick, M. T. (2011), "Methodological urban legends: The misuse of statistical control variables." *Organizational Research Methods*, 14, No.2, pp. 287-305.
- Sin, H.P., Nahrgang, J. D., & Morgeson, F.P. (2009), "Understanding why they don't see eye to eye: An examination of leader–member exchange (LMX) agreement." *Journal of Applied Psychology*, 94, No.4, pp. 1048.
- James, L. R., Demaree, R. G., & Wolf, G. (1984), "Estimating within-group interrater reliability with and without response bias." *Journal of Applied Psychology*, 69, No.1, pp. 85.
- Bliese, P. D. (2000), "Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis."
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006), *Multivariate data analysis*, Vol. 6, Pearson Prentice Hall, Upper Saddle River, NJ.
- Tabachnick, B. G., Fidell, L. S., & Osterlind, S. J. (2001), *Using multivariate statistics*.
- Netter, J., Wasserman, W., & Kutner, M. H. (1985), *Applied linear statistical models: regression, analysis of variance, and experimental designs*, Homewood, IL, RD Irwin.
- Hayes, A. F. (2013), *Model templates for PROCESS for SPSS and SAS*.
- Zhao, X., Lynch Jr, J. G., & Chen, Q. (2010), "Reconsidering Baron and Kenny: Myths and truths about mediation analysis." *Journal of Consumer Research*, 37, No.2, 197-206.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007), "Addressing moderated mediation hypotheses: Theory, methods, and prescriptions." *Multivariate Behavioral Research*, 42, No.1, pp. 185-227.

- Allison, B. B. (2016), An Examination of Leader-Member Exchange and Team Effectiveness.
- Sinclair, A. L. (2003), "The effects of justice and cooperation on team effectiveness." *Small Group Research*, 34, No.1, pp. 74-100.
- Huang, X., Wright, R. P., Chiu, W. C., & Wang, C. (2008), "Relational schemas as sources of evaluation and misevaluation of leader-member exchanges: Some initial evidence." *The Leadership Quarterly*, 19, No. 3, pp. 266-282.
- Kalisch, B. J., & Lee, K. H. (2010), "The impact of teamwork on missed nursing care." *Nursing Outlook*, 58, No.5, pp. 233-241.
- Greenslade, J. H., & Jimmieson, N. L. (2007), "Distinguishing between task and contextual performance for nurses: development of a job performance scale." *Journal of Advanced Nursing*, 58, No.6, pp. 602-611.