Improving Health Care Service through Healthy Psychological Capital and Positive Attitudes

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Abstract— This study aims to investigate the interaction between Psychological Capital (PsyCap) and Organizational Commitment in predicting Organizational Citizenship Behaviors (OCB) via Work-Engagement among nurses in Indonesia. Although most studies supported that PsyCap always had a positive impact on desired employee's outcomes, the effect could be different across jobs. The Cognitive Evaluation Theory was used to explain how the co-existence of Organizational Commitment could reduce the effect of Nurse's PsyCap. This study administered 900 survey booklets to six randomly selected hospitals in the eastern part of Indonesia. The survey included demographic data (e.g. age and tenure), Psychological Capital Questionnaire, Organizational Commitment Questionnaire, Utrecht Work-Engagement Scale, and Organizational Citizenship Behavior Scale. There were 637 (71%) out of 900 registered Nurses fully participated in the data collection and mostly female (529 or 90.6%). The data were analyzed with Moderated-mediation technique using PROCESS by Hayes in SPSS. The results suggested a partial mediation effect of Work-Engagement on the PsyCap-OCB relationship. This indicated that PsyCap directly predicted OCB or via Work-Engagement. The key findings also indicated that having a high degree of Organizational Commitment could reduce the effect of PsyCap on Work-Engagement and subsequently on OCB. It appeared that while Nurses maintained a high Organizational Commitment, their PsyCap did not contribute significantly to OCB and Work Engagement.

Keywords— health care services; PsyCap; OCB; work-engagement; organizational commitment.

I. INTRODUCTION

Like other organizations, Health Care Management system requires competent human resources. Likewise, employee's well-being, positive attitudes, and productive behaviours are expected to perform the system. A nurse is an essential job in a health care system. The nurses are expected to perform outstanding healthcare services. However, similar to ordinary employees, their positive mental states and attitudes are the antecedents of the expected work behaviours. This study aims to investigate the effect of positive Psychological Capital (PsyCap) on Organizational Citizenship Behaviours (OCB) among nurses in Indonesia, and how Organizational Commitment and Work-Engagement may influence the effect.

The effect of PsyCap has been well documented by many researchers across different studies. Many of those studies found the positive effect of Psychological Capital on employees outcomes [1]–[4]. The results seem consistent to support the positive effect of PsyCap towards many desired outcomes in organizations. Therefore, exhaustive scientific findings lead practitioners to maintain employee's PsyCap.

A meta-analysis conducted by Avey [6] suggested that PsyCap was positively correlated with job satisfaction, organizational commitment, psychological well-being, citizenship, and performance. A significant negative correlation also found between PsyCap and many undesired attitudes (cynicism, turnover intentions, job stress, and anxiety) and employee deviance [6], [7]. The increase of PsyCap contributes to fruitful impacts on employees and organizations.

As PsyCap offers many benefits, some scholars also investigated any unexplored areas of PsyCap. For example, Avey [8] investigated the antecedents of PsyCap. Many studies have discovered that PsyCap played a crucial mediating role in connecting predictors and the outcome variables. To name a few, PsyCap was recorded to mediate

the relationship between individual performance and job satisfaction [9], authentic leadership and organizational commitment [10], and leadership and employee's creative performance [11]. This sheds light on the importance of possessing positive psychological states for employees in any organizations.

PsyCap still significantly predicted performance, turnover intention, happiness and subjective well-being regardless of the effect of personality type [12]. Hence, PsyCap also added incremental values when combined with other positive antecedents such as the perception of workplace empowerment [13] and perception of authentic leadership [14]. PsyCap becomes valuable psychological resources for employees and supports many desired factors within the organizations. Maintaining a sufficient standard of PsyCap potentially favours organizations to cope with many challenges, particularly those related to human resources.

Apart from the positive impact of PsyCap, some challenges are currently faced by health care practitioners. Nursing is one of the most challenging yet vital professions in the health care industries. In Indonesia, Nurses must perform quick, professional, error-free, and skilful services. They work as the frontline of healthcare services and act as the first source of health information for patients and their family. Becoming a nurse requires standardized education and training, including an internship in public and private hospitals and other health care providers. Nurses are expected to be competent in performing basic to advance health care services.

Despite their vital roles, some investigation found that burnout was the most significant predictor to nurses' mental health issues [15], [16]. The Job Demand Resource model [17], [18] has proposed that high job demand causes burnout which also associated with low well-being and performance. However, if the high job demand supported by adequate resources, employees would experience work-engagement. Considering PsyCap as a set of personal resources, if nurses have an adequate level of PsyCap, they would be less likely to experience burnout, and on the contrary, their engagement would be higher. Therefore, investigating the effect of PsyCap on desired workplace outcomes will be beneficial for both scholars and practitioners in healthcare services.

PsyCap can help nurses engaged in their work routines as well as lowering the risk of being burnout. Numerous studies had also discovered that PsyCap was positively associated with Work-Engagement [1], [4], [19], [20]. These findings have confirmed the Job Demand Resource model in which PsyCap acts as the Nurse's psychological resources. Psychological resources in the form of hope, optimism, resilience, and efficacy are substantially necessary to support Nurses in dealing with high-demand tasks. Thus, a Nurse sufficient psychological resources will find his/her tasks more engaging than those who have an inadequate level of psychological resources.

PsyCap was also consistently found as the antecedent of Organizational Citizenship Behaviours or OCB for short [3], [21]–[23]. However, the relationship between PsyCap and OCB was not direct; it was moderated or mediated by other variables. For example, Pradhan [3] found that PsyCap and OCB were moderated by Emotional Intelligence, while Gupta et al. [22] discovered that the relationship was mediated by Work-Engagement. In terms of Nurses' performance, OCB also acts as desirable employee outcomes within the organization. In this case, OCB would improve health services and potentially increases patient satisfaction. Nevertheless, an investigation on how PsyCap indirectly affected OCB among nurses must be conducted to understand the indirect impact.

The effect of PsyCap on OCB via Work-Engagement has been previously examined [24]. However, the studies apply only to typical jobs or general population, such as manufactures or public services. Some scholars investigated the effect of PsyCap on OCB by collecting data from employees working in various industries or companies [3], [22]. In contrast, Beal III et al. [25] provided one example where they conducted a study in a governmental setting. Unfortunately, the study did not give us enough information regarding the type of job and tasks related to the findings. As the evidence may not be consistent across jobs, the indirect effect of PsyCap on OCB via Work-Engagement must be studied among Nurses.

The evidence has supported that PsyCap predicted Work-Engagement and OCB. However, the relationship may be affected by other existing variables in the organization. As mentioned earlier, Work-Engagement potentially mediates the relationship. In this case, PsyCap has benefited Nurses in terms of providing Psychological Resources which consequently increases engagement and later their OCB. The moderating effect of other variables should also be considered. In this regard, this study should consider one of the most significant predictors of Nurse's performance in order to understand how it interacts with Nurse's PsyCap.

Organizational Commitment is a crucial factor in shaping Nurse's performance as Nurses work by committing to the standard provided by the organization or hospitals [26]. Improving Organizational Commitment also brings a positive impact to the Nurse's competences [27]. Having considered this, the role of Organizational Commitment and how it influences the indirect impact of PsyCap must be investigated.

PsyCap is a concept that emerged from positive psychology and positive organizational behaviour. PsyCap is defined as a positive psychological state of development of an individual that has an impact on performance and is characterized by self-efficacy (having confidence at doing any tasks at hand), optimism (a determination about succeeding in life), hope (persevering toward goals to reach success), and resiliency (ability to adapt in difficult and or challenging condition to succeed) [28], [29]. Researches found that PsyCap was related positively toward employee's positive emotions which in turn were related to their attitudes (e.g., engagement, cynicism) and behaviours (e.g., Organizational citizenship, deviance) [30]. Moreover, PsyCap can also lead to an improvement in employee's job performance which will grant better outcomes for the employees and the organization [31].

The concept of engagement was first constructed by Kahn [32] who described engagement at work as how people express themselves at work physically, cognitively, emotionally, and mentally. In other words, engaged employees put much effort into their work because they express themselves wholly in their work and identify

themselves with their work. Some experts also define Work-Engagement as a positive, fulfilling, affective-motivational psychological state of work-related well-being that is characterized by vigour, dedication, and absorption as its core dimensions [33]–[35]. Some researchers believed that engagement exists in contrast or negatively related to that of burnout condition on employees [36]. The reason behind that finding is that engagement in the work itself act as a positive antithesis of burnout. Bakker [37]suggests that employees who have a high level of energy, identification with their work, and engaged in their work, are more likely to show better performance.

Organizational citizenship behaviour can be defined as an action taken by an employee that has nothing to do with his or her job requirement but benefit the organization because it exceeds the formal requirements [38]. Moreover, OCB was also described by Organ [39] as a set of behaviour or performance that contributes to the social and psychological environment in which task performance was performed. However, Organ [39] explained that OCB might lead to lower job performance if the employees discard their main responsibilities. The benefits of OCB outperformed its negative impact on employees and organizations [40]–[42].

Organizational Commitment is a factor that determines the employee work behaviours [43]. Meyer and Allen defined Organizational Commitment as a psychological state that determines employees' relationship with the organization and has an impact on the decision to continue or discontinue the membership [44]. According to Meyer and Allen [44], there are three components of commitment in an individual as a psychological state, that is affective commitment (a desire to stay), continuance commitment (recognition of the cost associated by leaving the organization), and normative commitment (an obligation or moral responsibility to commit as a member in the organization). Moreover, Reichers found that multiple goals and values might lead to a higher level of Organizational Commitment [45].

Three theories will be used to establish the theoretical model; 1) the Conservation of Resource (CoR) theory, 2) the Job Demand Resource (JDR) model, and 3) the Cognitive Evaluation Theory (CET).

The Conservation of Resources theory [46] postulates that people are motivated to preserve, secure, and prevent further resource loss. The term resource in this theory refers to object possession, psychological resources (e.g. efficacy), desired condition (e.g. security), and energies. According to Hobfoll, people are prone to experience tremendous stress if their valuable resources are threatened, loss or their investment to secure the resources does not accrue [46]. While investing in resources could accrue resource security, resource loss would have a devastating impact on individual emotions. Therefore, to secure the resources, the individual should carefully opt for actions that can eliminate resource depletion.

Psychological Capital is a set of positive psychological traits (i.e. hope, efficacy, resilience and optimism) and has been known as psychological resources for employees [5], [47]. Like other resources, employees can experience PsyCap depletion or in contrast, PsyCap investment. To ensure their PsyCap accrues, employees should be able to find supports from others such as co-workers, subordinates, and supervisors.

As PsyCap increases due to gaining supports from others, the impact will be fruitful to the organization. The positive psychological states within the PsyCap construct may stimulate OCB [5]. Employees who experience a high degree of PsyCap would feel more secure and far from being threatened. As they have tremendous psychological resources, they have fewer concerns regarding their actions and feel more secure to perform an extra role. Employees with high PsyCap may feel the confidence that they have enough resources to perform their tasks and help others. The same principle also applies to nurses. The Nurse PsyCap will motivate to perform OCB towards others and the organization.

To support the notion, Pradhan and colleagues found that employee's PsyCap predicted OCB [3]. Hence, employees that reported a high level of PsyCap are more likely to possess citizenship behaviour. Another research also confirms a positive relationship between PsyCap and OCB [22]. However, the results also confirmed the mediating role of Work-Engagement which means employees display voluntary behaviours at work only if they were engaged in their work [22]. Thus the relationship between PsyCap on OCB could be mediated by Work-Engagement.

Job Demand Resource (JDR) theory [17], [18] has been extensively used to explain the effect of resources on workers' engagement. The tenet of this theory postulates that transforming job-demand into work-engagement requires a certain amount of job and personal resources. Burnout will occur if in a circumstance where job-demand is high and no enough resources to support the individual. Nurses who have enough psychological resources or PsyCap will be able to deal with job-demand and turn the demand into engaging work tasks.

Consequently, engaged Nurses experience positive emotion at a workplace characterized by vigour, dedication and absorption [48]. Their engagement potentially motivates them to perform OCB as they have enough resources to deal with more demanding tasks. Individuals with these characteristics will challenge themselves to overcome highly demanding tasks in the organization. This, then, creates a cascading impact from PsyCap to Work Engagement and eventually OCB.

This mediation model has been well-documented in the last decade. For instance, Paek and others (2015) found that front line employees in five-star hotels who showed a high level of PsyCap tend to be more engaged with their work compared to those who showed a low level of PsyCap. Another study also found that employees were highly engaged when they had higher PsyCap level [49]. Similarly, the effect of OCB on Wor-Engagement has been empirically supported. Babcock-Roberson and Strickland found that Work-Engagement was positively related to OCB [50]. The more an employee is engaged in his/her work, the higher the level of OCB will be. Ginsburg et al. [51] also found that engaged employees showed a higher level of OCB, compared to those who had a lower level of Wor-Engagement.

Considering the CoR theory, the JDR model and some empirical supports, this study proposes these following

hypotheses; 1) H1a: PsyCap directly impacts OCB, 2) H1b: Work-Engagement mediates the effect of PsyCap on OCB.

The Cognitive Evaluation Theory (Deci and Ryan, 1985) The Cognitive Evaluation Theory [52] suggests that intrinsic motivation may fade away as along with the introduction of extrinsic motivation. People are more likely to lose their intrinsic motivation towards certain behaviours and replaced by external factors as the new external motivation is introduced. To illustrate, one may engage in a working condition simply because the work is intrinsically rewarding. However, after an external reward (e.g., gift card) is given, the impact of the intrinsic motif on behaviour gradually decreases. Thus, the external factor slowly reduces the effect of intrinsic motivation on behaviour [52].

Similarly, the internal psychological resources (i.e. hope, self-efficacy, optimism, and resilience) engage individuals in performing tasks. The internal resources act as the intrinsic factors towards the individual Work-Engagement. Nevertheless, the confounding effect of other external factors potentially reduced the effect of these resources on Work-Engagement. This, then, causes a conditional effect of PsyCap on Work-Engagement. In other words, an externally rewarding factor could gradually reduce the effect of an intrinsic factor such as PsyCap.

Organizational Commitment potentially has a negative interaction with PsyCap. Organization Commitment is one of the most studied variables in the area of Human Resource Management (HRM). It is considered as one of the most desired variables, and the effect was found to be positive for many employees and organizational outcomes [53]–[56]. Although Organisation Commitment is proven to be effective in an organization, Organizational Commitment is more related to the organization-individual relationship and it depends on how an individual perceived a rewarding-condition from the organisation [57]. As the organization offers more benefits, employees would tend to maintain their membership. However, this condition may gradually substitute the effect of PsyCap as intrinsic motivation.

Considering the above argument, this study predicts that the increase of Organizational Commitment will discount the effect of PsyCap on Work-Engagement and subsequently lowers OCB. Thus, the last hypothesis will be; H2: The mediating effect of Work-Engagement on PsyCap-OCB relationship will be moderated by Organizational Commitment.

II. MATERIALS AND METHOD

A. Materials

This study employed four measures for data collection. All the measures were adapted from English to Bahasa Indonesia.

1) Psychological Capital Questionnaire (PCQ): Psychological Capital or PsyCap was measured using the Psychological Capital Questionnaire (PCQ), which previously developed by Luthans [58]. The dimensions included Efficacy, Hope, Resilience, and Optimism. Some previous studies have found that PCQ was valid and reliable for a research purpose [59], [60]. The scale is classified as having adequate construct validity with a fit index of RMSEA= .07, CMIN/ DF= 2.6, and CFI= .90. The

reliability analysis found a high Cronbach's alpha (.90). The scale is a Likert-type scale with response options ranged from 1 (Strongly disagree) to 5 (Strongly agree). An example of a PCQ item is "Today I see myself success at work."

2) Organizational Commitment Questionnaire (OCQ): Organizational Commitment was measured using the Organizational Commitment Questionnaire [61] or OCQ. This is a 16-item Likert-type scale with options ranged from 1 (Strongly Disagree) to 5 (Strongly Agree). This scale has three dimensions, namely Affective, Continuance and Normative. OCQ was constructively valid and reliable for a research purpose [61]. The Confirmatory Factor Analysis (CFA) suggested that the measurement model was fit with RMSEA = 0.06, CMIN / DF = 2, and CFI = .97. In addition, the value of Cronbach's alpha was above the standard (.87). An example of items is "this company means a lot to my life."

3) Utrecht Work-Engagement Scale (UWES): This study used Utrecht Work-Engagement Scale (UWES) to measure Work-Engagement, which was developed by Schaufeli & Bakker [34]. The scale is a Likert type with options ranged from 1 (Strongly Disagree) to 5 (Strongly Agree). The scale had 17 items, divided into three subscales (i.e., Vigor, Dedication, and Absorption). An example of the UWES item is "I am passionate about my work." This scale was found to be valid and reliable [63]. The CFA indicated sufficient construct validity (RMSEA= 0.07, CMIN/ DF= 2.8, and CFI= .95). Also, this scale was highly reliable with Cronbach's alpha= .96.

4) Organizational Citizenship Behavior Scale (OCBS): Organizational Citizenship Behavior (OCB) was measured with the Organizational Citizenship Behavior Scale (OCBS). This scale was initially developed by Podsakoff et al. [42]. The dimensions included Courtesy, Altruism, Civic virtue, Sportsmanship, and Consciousness. Overall, the OCBS has 24 items with 7-point Likert-type scale ranging from option 1 (strongly disagree) to 7 (strongly agree). The CFA yielded RMSEA= .08, and Cronbach's alpha value was .81 indicating a valid and reliable scale. The items include "I help other workers who have a heavy workload."

B. Method

This study was conducted in six major cities in Indonesia. Since each city had more than one hospitals, the hospitals were randomly selected and labelled as follows; A, B, C, D, E, and F. The population was Nurses who had been officially registered and recognized by Minister of Health and interns were not included in this study. Next, 900 survey booklets were administered, consisting of demographic information and measurement scales (i.e., PCQ, OCQ, UWES, and OCBS). The data were collected using a three-wave data collection. In the first wave, the demographic and PsyCap data were collected. The next following week, Organizational Commitment data were collected. At the final wave, two weeks after the second wave, OCB data were collected. Each participant had a unique code to match their survey booklet in each wave. There were 637 (71%) out of 900 participants who fully participated in the data collection.

TABLE I
NUMBERS OF PARTICIPANTS IN EACH HOSPITAL

Hospital		Frequency	Per cent	Valid Percent
Valid	A	94	14.8	14.8
	B	78	12.2	12.2
	C	91	14.3	14.3
	D	143	22.4	22.4
	E	138	21.7	21.7
	F	93	14.6	14.6
	Total	637	100.0	100.0

The data revealed that most participants were female (529 or 90.6%), married (64.8%), and had bachelor degrees (49.3%) or higher degrees (50.7%). Their ages ranged from 17 to a maximum of 58 years, with an average of 30.15 (SD= 6.69) while their tenures varied from 1 to 35 years (M= 7.27, SD= 6.14).

III. RESULTS AND DISCUSSION

The descriptive and bivariate correlation analysis revealed that the participants' mean age was 30.31 (SD= 6.91), and on average, they had worked for 8.13 years (SD= 7.43). With respect to the correlations, PsyCap was found positively and significantly associated with WE (r= .37, $p <$ .01), OCB (r= .33, $p <$ .01), and OC (r= .22, $p <$.01). On the contrary, significant correlations were not found between PsyCap and all demographic variables (age, tenure, education and marriage). Likewise, the demographic variables were not associated with WE, OCB, and OC. The WE-OCB and WE-OC relationships were also significant with correlation coefficients of r= .29, $p <$.01 and r= .23, $p <$.01 respectively. Almost all the main variables (PsyCap, WE, OCB, and OC) were significantly correlated, except the correlation between OCB and OC (r= .03, $p >$ .05).

The moderated-mediation analysis was conducted with Bias Corrected Accelerated (BCA) bootstrapping technique (5000 sample size). Table II shows the moderated-mediation results.

TABLE II
THE MODERATED-MEDIATION RESULTS WITH PROCESS©

Variable	β	t	R	R^2	F	Bootstraping LLCI-ULCI	
Step 1			.41	.17***	27.32		
PsyCap	.48***	7.00				.34	.62
OC	.26**	3.01				.08	.42.
PsyCap*OC	-.02*	-1.99				-.03	.00
Dependent variable= Work Engagement							
Step 2			.35	.12***	28.20		
PsyCap	.29***	4.90				.15	.43
WE	.14**	3.41				.06	.22
Dependent variable: Organizational citizenship behavior							

Note: N= 532; ***$p <$ .001, **$p <$ .01 and *$p <$ .05; WE= Work Engagement, PsyCap= Psychological Capital, OC= Organizational Commitment. LLCI= Lower Level Confidence Interval, ULCI= Upper-Level Confidence Interval. Significance of estimates was based on 95% confidence intervals; Bootstraping sample size= 5000

In the first step, the analysis was performed with Work-Engagement as the dependent variable. In this step, PsyCap (β= .48, $p <$ .001) and OC (β= .26, $p <$ .01) significantly predicted Work-Engagement. Also, the interaction between PsyCap and OC yielded a significant negative effect on Work Engagement (β= -.02, $p <$ .05). Given the Bootstrapping Confidence Interval (CI), only the PsyCap*OC CI marginally contained zero. This might indicate any potential biases due to sampling error. However, since the range between LLCI (-.03) and ULCI (.00) was close, the error tended to be minor and the p-value was still relevant.

The second step showed the effect of PsyCap and Work Engagement on OCB. The results suggested that PsyCap and Work-Engagement both had significant impacts on OCB with β= .29 (p< .01) and .14 (p< .01) respectively. The Bootstrapping CI also contained no zero between LLCI and ULCI. Sampling error would not be the case in interpreting the p-value. Considering the R2= .12 (p< .001), PsyCap and Work-Engagement both account for 12% variance of OCB.

Having considered the moderated-mediation results, all hypotheses in this study were confirmed. H1a was confirmed as PsyCap directly impacted OCB. Secondly, since PsyCap positively affected Work-Engagement while Work-Engagement also positively predicted OCB, the H1b was also confirmed. The interaction of PsyCapxOC also predicted Work-Engagement, while Work-Engagement positively influenced OCB. This provides support for the H2. In other words, the moderated-mediation model was fully confirmed. However, the moderating effect of OC, in this case, was negative which means that the increase of OC would potentially reduce the effect of PsyCap on Work-Engagement. In contrast, the decrease in OC would improve the impact of PsyCap.

Table III shows the conditional indirect effect of PsyCap on OCB via Work-Engagement at values of OC:

TABLE III
THE CONDITIONAL INDIRECT EFFECT OF PSYCAP AT VALUES OF OC WITH PROCESS©

OC	β	SE	t	Bootstrapping[a]			
				Effect	SE	LLCI	ULCI
Low	.60***	.08	6.76	.09	.03	.04	.14
Middle	.47***	.06	6.89	.07	.02	.03	.11
High	.36***	.09	3.88	.05	.02	.02	.09

Note: N= 532; Predictor= PsyCap; ***$p <$ .001, **$p <$ .01 and *$p <$ .05 OC= Organizational Commitment, LLCI= Lower Level Confidence Interval, ULCI= Upper Level Confidence Interval. Significance of estimates was based on 95% confidence intervals; Bootstraping sample size = 5000; [a]PC → WE → OCB

As illustrated in table III, the indirect effect of PsyCap on OCB was stronger (β= .48, $p <$ .001) when OC was in the low state. As the OC increased, the indirect effect was also reduced from β= .47 ($p <$ .001) to β= .36 ($p <$ .001). This finding indicates that having a high OC may potentially weaken the effect of PsyCap on OCB via Work-Engagement. To better understand the conditional effect, the following graph illustrated the effect of PsyCap on Work-Engagement with OC as the moderating variable:
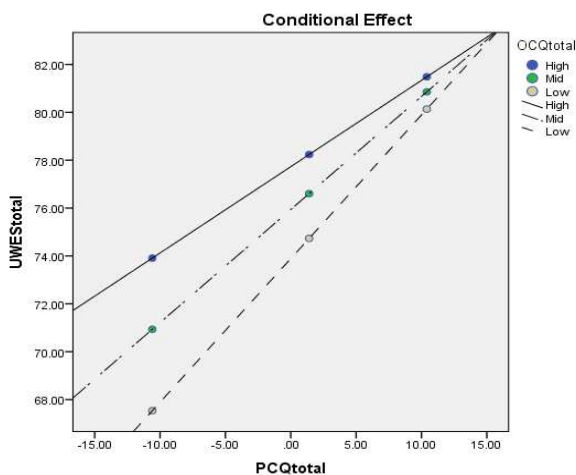
Fig.1 The effect of PsyCap (PCQtotal) on Work Engagement (UWEStotal) at values of Organizational Commitment (OCQtotal)

Here figure 2 shows the empirical moderated-mediation model where OC negatively moderates the mediating effect of Work-Engagement on the PsyCap-OCB relationship.
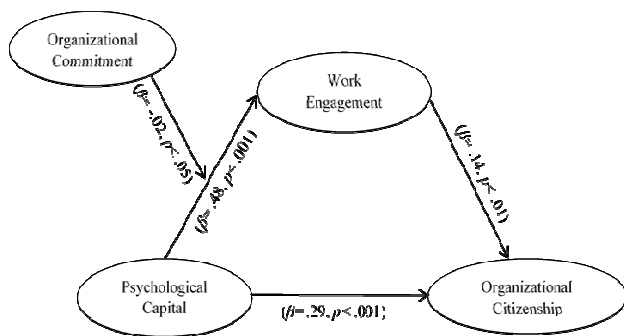

Fig. 2 The Moderated-mediation model

Psychological resources are essentially vital for any individuals working in health care centres. Considering the importance of PsyCap among Nurses, this study aims to investigate the positive effect of PsyCap on OCB through the mediating role of Work Engagement and the moderating effect of Organizational Commitment. Previous findings had supported that possessing high PsyCap would bring fruitful impacts on both employees and organizations. In a similar vine, Work Engagement and Organizational Commitment also shared the same positive impacts on employees and organization. However, the interaction of existing positive variables within organizations is less known.

To bring new insight, this study attested the interaction between OC and PsyCap. The results suggest a positive effect of PsyCap on OCB which was consistent with some previous studies [3], [21]–[23]. Similarly, the mediating effect of Work-Engagement was also found in a previous study [22]. PsyCap contains positive psychological states for Nurses and they have played crucial roles in employee's Work-Engagement and OCB.

The JDR Model theory [17], [18], [48], [65] appears to be consistent with this current empirical finding. In this study, the Nurses' OCB has been positively influenced by the level of their PsyCap. However, the effect could be two folds. First, having enough PsyCap as Psychological Resources could directly improve their OCB or second, the effect could be via the mediating role of Work-Engagement. Concerning Nurses' work dynamics, their OCB towards other co-workers or hospitals as a whole will more likely emerge if they have enough PsyCap. However, if the Nurses have under-developed PsyCap their day-to-day work routine could barely achieve the minimum standard and far from the extra-role performance.

Another interesting finding in this study is that the co-existing of Organizational Commitment produced a negative moderating effect on PsyCap. PsyCap would weaken its impact on Work-Engagement and subsequently on OCB as the Organizational Commitment increased. This is being said that Nurses' PsyCap would fully impact Work-Engagement and OCB only if the Nurse's Organizational Commitment at a low level. Organization Commitment reduces the positive effect of Positive Psychological Resources on Work-Engagement and OCB. Nevertheless, both Organizational Commitment and PsyCap are desired psychological states in organizations.

Committing to the organization among Nurses may cause them to discard their potential PsyCap. Despite the positive contribution of Organizational Commitment, hospital or other private cares will not experience the influence of PsyCap on OCB as Nurses develop a high Organizational Commitment. Of course, a high Organizational Commitment also has desired impacts on the organization as well as the employees. However, as Nurses develop commitment towards their workplace (e.g. hospital), their PsyCap may not serve as a strong predictor for both Work-Engagement and OCB.

The Cognitive Evaluation Theory (CET) has been developed by Deci and Ryan (1985) to help scholars and practitioners in understanding the conflict of having two sources of motivation (i.e. intrinsic and extrinsic). As explained by the theory, introducing the extrinsic factors would fade out the effect of intrinsic factors. Although both sources of motivation act as motivational factors, the co-existing of two sources could not sum up to benefit certain desired behaviours.

The Nurses in this study could have an expected level of PsyCap. In this regard, they were able to maintain sufficient hope, optimism, resilience, and self-efficacy towards their daily tasks. The negative effect of Organizational Commitment indicated that as Nurses developed committed-relationship with their workplace, their psychological resources (PsyCap) would have a weak impact on attitudes and behaviours. In brief, the co-existing of Organizational Commitment and PsyCap caused the non-significant effect of PsyCap on Nurses' Work-Engagement and OCB.

Surprisingly, many previous studies have documented a positive direct relationship between PsyCap and Organizational Commitment [5], [10], [66]. In this study, the results suggested that positive relationships may not always bring additional effects. Perhaps, each job or task shows a different effect of co-existing positive variables. The nature and circumstances of each job are unique. The combination of some positive predictors may offer less incremental benefits to the targeted outcomes (e.g., Work-Engagement). This study has become an example where two positive variables compete and reduce the effect of the other.

Based on the empirical findings, managing human resources in a healthcare organization should consider some important issues. There is a potential ongoing conflict between having positive personal states and being a committed Nurse in hospitals. Nurses could have developed ignorance of their positive personal states as they were more committed to their workplace. In this case, the hospital or health care providers should start valuing and encouraging the development of positive psychological states including hope, optimism, resilience, and self-efficacy. Being committed to the organization should not hinder the Nurses from exerting their PsyCap. To align the two variables, the personal development system and performance appraisal in a hospital should also value and acknowledge the Nurse's PsyCap.

PsyCap has been consistently found to be one of the most promising predictors for Engagement and OCB. Developing a new programme such as web-based PsyCap training or PsyCap development program will help nurses to develop a better PsyCap. However, other resources should also be maintained such as organizational and supervisory support. By showing nurses that their resources are encouraged, committing to the organization potentially adds incremental value to PsyCap, Engagement and OCB.

This study was conducted in the eastern part of Indonesia, involving hospitals in six different cities. Although the sample was considered representative and adequate for the analysis, it may not represent Indonesia as a whole. Future study is expected to replicate this study and bring the data collection to the national level where all nurses across provinces and cities will participate. Secondly, by using the bootstrapping technique, this study intended to control some potential sample biases. The results could have had biases as the LLCI and ULCI slightly contained zero. Future researchers may want to examine this theoretical model with more diverse participants and bigger sample size. Nevertheless, the effect of other confounding variables such as gender, type of hospital, tenure, and age should also be considered.

IV. Conclusion

This study revealed that Nurse's PsyCap could directly influence OCB or indirectly via Work-Engagement. Besides, Organizational Commitment was found to be a negative moderator in the model. In this study, Nurses tended to discard the role of their PsyCap as they were committed to the organization. Regardless of the positive effect of Organizational Commitment, it should not reduce the effect of PsyCap among Nurses. The conflicting role of commitment and personal resources should warn people who are responsible for managing the Nurse's well-being and personal development. It could be a sign that Nurses start to view organization and personal development are two separate areas while they both should be incorporated for the sake of organizational development.

References

[1] S. L. Chen, "The relationship of leader psychological capital and follower psychological capital, job engagement and job performance: a multilevel mediating perspective," *Int. J. Hum. Resour. Manag.*, vol. 26, no. 18, pp. 2349–2365, Oct. 2015.

[2] T. E. D. A. Paterson, F. Luthans, and W. Jeung, "Thriving at work : Impact of psychological capital and supervisor support," *J. Organ. Behav.*, vol. 35, pp. 434–446, 2014.

[3] R. K. Pradhan, L. K. Jena, and P. Bhattacharya, "Impact of psychological capital on organizational citizenship behavior: Moderating role of emotional intelligence," *Cogent Bus. Manag.*, vol. 3, no. 1, Jun. 2016.

[4] J. C. Simons and J. H. Buitendach, "Psychological capital, work engagement and organisational commitment amongst call centre employees in South Africa," *SA J. Ind. Psychol.*, vol. 39, no. 2, pp. 1–12, Mar. 2013.

[5] J. B. Avey, R. J. Reichard, F. Luthans, and K. H. Mhatre, "Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance," *Hum. Resour. Dev. Q.*, vol. 22, no. 2, pp. 127–152, Jun. 2011.

[6] J. B. Avey, R. J. Reichard, F. Luthans, and K. H. Mhatre, "Meta-Analysis of the Impact of Positive Psychological Capital on Employee Attitudes, Behaviors, and Performance," *Hum. Resour. Dev. Q.*, vol. 22, no. 2, pp. 127–152, 2011.

[7] J. B. Avey, F. Luthans, and C. M. Youssef, "The Additive Value of Positive Psychological Capital in Predicting Work Attitudes and Behaviors," *J. Manage.*, vol. 36, no. 2, pp. 430–452, 2010.

[8] J. B. Avey, "The Left Side of Psychological Capital: New Evidence on the Antecedents of PsyCap," *J. Leadersh. Organ. Stud.*, vol. 21, no. 2, 2014.

[9] M. G. Bitmiş and A. Ergeneli, "The Role of Psychological Capital and Trust in Individual Performance and Job Satisfaction Relationship: A Test of Multiple Mediation Model," *Procedia - Soc. Behav. Sci.*, vol. 99, pp. 173–179, Nov. 2013.

[10] P. Rego, M. P. Lopes, and J. L. Nascimento, "Authentic leadership and organizational commitment: The mediating role of positive psychological capital," *J. Ind. Eng. Manag.*, vol. 9, no. 1, 2016.

[11] V. Gupta and S. Singh, "Psychological capital as a mediator of the relationship between leadership and creative performance behaviors: empirical evidence from the Indian R&D sector," *Int. J. Hum. Resour. Manag.*, vol. 25, no. 10, pp. 1373–1394, May 2014.

[12] Y. Choi and D. Lee, "Psychological capital, Big Five traits, and employee outcomes," *J. Manag. Psychol.*, vol. 29, no. 2, pp. 122–140, 2014.

[13] C. Bradbury-Jones, "Review: Engaging new nurses: the role of psychological capital and workplace empowerment," *J. Res. Nurs.*, vol. 20, no. 4, pp. 278–279, 2015.

[14] A. Adil and A. Kamal, "Impact of Psychological Capital and Authentic Leadership on Work Engagement and Job Related Affective Well-being," *Pakistan J. Psychol. Res.*, vol. 31, no. 1, pp. 1–21, 2016.

[15] G. A. Cañadas-De la Fuente, C. Vargas, C. San Luis, I. García, G. R. Cañadas, and E. I. De la Fuente, "Risk factors and prevalence of burnout syndrome in the nursing profession," *Int. J. Nurs. Stud.*, vol. 52, no. 1, pp. 240–249, Jan. 2015.

[16] N. Embriaco, L. Papazian, N. Kentish-Barnes, F. Pochard, and E. Azoulay, "Burnout syndrome among critical care healthcare workers," *Curr. Opin. Crit. Care*, vol. 13, no. 5, pp. 482–488, Oct. 2007.

[17] W. B. Schaufeli and A. B. Bakker, "Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study," *J. Organ. Behav.*, vol. 25, no. 3, pp. 293–315, 2004.

[18] A. B. Bakker and E. Demerouti, "The Job Demands-Resources model: state of the art," *J. Manag. Psychol.*, vol. 22, no. 3, pp. 309–328, 2007.

[19] S. Paek, M. Schuckert, T. Terry, and G. Lee, "Why is hospitality employees ' psychological capital important? The effects of psychological capital on work engagement and employee morale," *Int. J. Hosp. Manag.*, vol. 50, pp. 9–26, 2015.

[20] X. Pan, T. Mao, J. Zhang, J. Wang, and P. Su, "Psychological capital mediates the association between nurses' practice environment and work engagement among Chinese male nurses," *Int. J. Nurs. Sci.*, vol. 4, no. 4, pp. 378–383, Oct. 2017.

[21] R. Bogler and A. Somech, "Psychological Capital, Team Resources and Organizational Citizenship Behavior," *J. Psychol.*, vol. 153, no. 8, pp. 784–802, Nov. 2019.

[22] M. Gupta, M. Shaheen, and P. K. Reddy, "Impact of psychological capital on organizational citizenship behavior: Mediation by work engagement," *J. Manag. Dev.*, vol. 36, no. 7, pp. 973–983, 2017.

[23] W. Nafei, "Meta-Analysis of the Impact of Psychological Capital on Quality of Work Life and Organizational Citizenship Behavior: A

Study on Sadat City University," *Int. J. Bus. Adm.*, vol. 6, no. 2, Feb. 2015.

[24] M. Gupta, M. Shaheen, and P. K. Reddy, "Impact of psychological capital on organizational citizenship behavior," *J. Manag. Dev.*, vol. 36, no. 7, pp. 973–983, Aug. 2017.

[25] L. Beal III, J. M. Stavros, and M. L. Cole, "Effect of psychological capital and resistance to change on organisational citizenship behaviour," *SA J. Ind. Psychol.*, vol. 39, no. 2, Mar. 2013.

[26] M. Brito Duarte, "Organisational and professional commitments: The influence in nurses' organisational citizenship behaviours," *Tékhne*, 2015.

[27] A. Battistelli, M. Galletta, C. Vandenberghe, and C. Odoardi, "Perceived organisational support, organisational commitment and self-competence among nurses: a study in two Italian hospitals," *J. Nurs. Manag.*, vol. 24, no. 1, pp. E44–E53, Jan. 2016.

[28] F. Luthans, "The need for and meaning of positive organizational behavior," *J. Organ. Behav.*, vol. 23, no. 6, pp. 695–706, 2002.

[29] F. Luthans, C. M. Youssef, and B. J. Avolio, *Psychological Capital: Developing the Human Competitive Edge*. 2007.

[30] J. B. Avey, T. S. Wernsing, and F. Luthans, "Can positive employees help positive organizational change?: Impact of psychological capital and emotions on relevant attitudes and behaviors," *J. Appl. Behav. Sci.*, vol. 44, no. 1, pp. 48–70, 2008.

[31] F. Luthans, J. B. Avey, B. J. Avolio, and S. J. Peterson, "The Development and Resulting Performance Impact of Positive Psychological Capital," *Hum. Resour. Dev. Q.*, vol. 21, no. 1, pp. 41–67, 2010.

[32] W. A. Kahn, "Psychological Conditions of Personal Engagement and Disengagement at Work," *Acad. Manag. J.*, vol. 33, no. 4, pp. 692–724, Dec. 1990.

[33] A. B. Bakker, W. B. Schaufeli, M. P. Leiter, and T. W. Taris, "Work engagement: An emerging concept in occupational health psychology," *Work Stress*, vol. 22, no. 3, pp. 187–200, 2008.

[34] W. B. Schaufeli and A. B. Bakker, *Utrecht work engagement scale Manual*, no. December. 2003.

[35] W. B. Schaufeli and A. B. Bakker, "UWES Utrecht Work Engagement Scale," *Occup. Heal. Psychol. Unit Utr. Univ.*, no. November, pp. 1–58, 2003.

[36] C. Maslach and M. P. Leiter, "Early predictors of job burnout and engagement.," *J. Appl. Psychol.*, vol. 93, no. 3, pp. 498–512, 2008.

[37] A. B. Bakker, *Work Engagement*. Psychology Press, 2010.

[38] G. R. VandenBos, "APA dictionary of psychology," *Choice Rev. Online*, vol. 53, no. 02, pp. 53-0577-53–0577, Oct. 2015.

[39] D. W. Organ, "Organizational Citizenship Behavior: It's Construct Clean-Up Time," *Hum. Perform.*, vol. 10, no. 2, pp. 85–97, 1997.

[40] S. B. MacKenzie, P. M. Podsakoff, and R. Fetter, "The Impact of Organizational Citizenship Behavior on Evaluations of Salesperson Performance," *J. Mark.*, vol. 57, no. 1, p. 70, Jan. 1993.

[41] P. M. Podsakoff and S. B. MacKenzie, "Impact of Organizational Citizenship Behavior on Organizational Performance: A Review and Suggestion for Future Research," *Hum. Perform.*, vol. 10, no. 2, pp. 133–151, Jun. 1997.

[42] P. M. Podsakoff, M. Ahearne, and S. B. MacKenzie, "Organizational citizenship behavior and the quantity and quality of work group performance.," *J. Appl. Psychol.*, vol. 82, no. 2, pp. 262–270, 1997.

[43] R. Yahaya and F. Ebrahim, "Leadership styles and organizational commitment: literature review," *J. Manag. Dev.*, vol. 35, no. 2, pp. 190–216, Mar. 2016.

[44] J. P. Meyer and N. J. Allen, "A Three-Component Model Conceptualization of Organizational Commitment," *Hum. Resour. Manag. Rev.*, vol. 1, no. 1, pp. 61–89, 1991.

[45] A. E. Reichers, "A review and reconceptualization of organizational commitment.," *Acad. Manage. Rev.*, vol. 10, no. 3, pp. 465–476, 1985.

[46] S. E. Hobfoll, "Conservation of Resources: A New Attempt at Conceptualizing Stress," *Am. Psychol.*, vol. 44, no. 3, pp. 513–524, 1989.

[47] C. M. Youssef-Morgan and F. Luthans, "Psychological Capital and Well-being," *Stress Heal.*, vol. 31, no. 3, pp. 180–188, Aug. 2015.

[48] A. B. Bakker, "An evidence-based model of work engagement," *Curr. Dir. Psychol. Sci.*, vol. 20, no. 4, pp. 265–269, 2011.

[49] B. K. Joo, D. H. Lim, and S. Kim, "Enhancing work engagement: The roles of psychological capital, authentic leadership, and work empowerment," *Leadersh. Organ. Dev. J.*, vol. 37, no. 8, pp. 1117–1134, 2016.

[50] M. E. Babcock-Roberson and O. J. Strickland, "The relationship between charismatic leadership, work engagement, and organizational citizenship behaviors," *J. Psychol. Interdiscip. Appl.*, vol. 144, no. 3, pp. 313–326, 2010.

[51] L. Ginsburg *et al.*, "Measuring work engagement, psychological empowerment, and organizational citizenship behavior among health care aides," *Gerontologist*, vol. 56, no. 2, pp. e1–e11, 2016.

[52] E. L. Deci and R. M. Ryan, "Cognitive Evaluation Theory," in *Intrinsic Motivation and Self-Determination in Human Behavior*, New York: Springer Since+Business Media, 1985, pp. 87–112.

[53] R. M. Steers, "Antecedents and Outcomes of Organizational Commitment," *Adm. Sci. Q.*, vol. 22, no. 1, p. 46, Mar. 1977.

[54] L. W. Porter, R. M. Steers, R. T. Mowday, and P. V. Boulian, "Organizational commitment, job satisfaction, and turnover among psychiatric technicians.," *J. Appl. Psychol.*, vol. 59, no. 5, pp. 603–609, 1974.

[55] J. E. Finegan, "The impact of person and organizational values on organizational commitment," *J. Occup. Organ. Psychol.*, vol. 73, no. 2, pp. 149–169, Jun. 2000.

[56] J. E. Mathieu and D. M. Zajac, "A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment.," *Psychol. Bull.*, vol. 108, no. 2, pp. 171–194, 1990.

[57] J. P. Meyer and N. J. Allen, "A three-component conceptualization of organizational commitment," vol. 1, no. 1, pp. 61–89, 1991.

[58] F. Luthans, C. M. Youssef-Morgan, and B. J. Avolio, *Psychological Capital and Beyond*. New York: Oxford University Press, 2015.

[59] A. C. Antunes, A. Caetano, and M. Pina e Cunha, "Reliability and Construct Validity of the Portuguese Version of the Psychological Capital Questionnaire," *Psychol. Rep.*, vol. 120, no. 3, pp. 520–536, 2017.

[60] T. Lorenz, C. Beer, J. Pütz, and K. Heinitz, "Measuring psychological capital: Construction and validation of the compound PsyCap scale (CPC-12)," *PLoS One*, vol. 11, no. 4, pp. 1–17, 2016.

[61] N. J. Allen and J. P. Meyer, "The measurement and antecedents of affective, continuance and normative commitment to the organization," *J. Occup. Psychol.*, vol. 63, pp. 1–18, 1990.

[62] L. Vinet and A. Zhedanov, "Utrecht work engagement scale," *J. Phys. A Math. Theor.*, vol. 44, no. 8, pp. 185–201, Feb. 2011.

[63] T. J. Drake and A. Gibbons, "Assessing Employee Engagement: A Comparison Of The Job Engagement Scale And The Utrecht Work Engagement Scale," pp. 3–50, 2012.

[64] A. F. Hayes, *Introduction to Mediation, Moderation, and Conditional Process Analysis*. 2013.

[65] A. B. Bakker and E. Demerouti, "Towards a model of work engagement," *Career Dev. Int.*, vol. 13, no. 3, pp. 209–223, 2008.

[66] J. Peng *et al.*, "The Impact of Psychological Capital on Job Burnout of Chinese Nurses: The Mediator Role of Organizational Commitment," *PLoS One*, vol. 8, no. 12, p. e84193, Dec. 2013.