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Working in the hangar: The impact of psychological capital on work outcomes among army aircraft mechanics

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ABSTRACT

Based on positive organizational behavior, this study aimed to explore the impact of psychological capital (PsyCap) on task performance, organizational citizenship behaviors, affective commitment, and job satisfaction among army aircraft mechanics. Data was obtained from 260 aircraft mechanics working in various Turkish Army aviation units. The hypotheses were tested using a series of hierarchical regressions. The results indicated that those with higher PsyCap are more likely to depict task performance, engage in highly extra-role behaviors, be more committed to their organizations, and be highly satisfied with their jobs that are advantageous to army aviation settings. The authors concluded that promoting the levels of PsyCap could be effective in elevating aircraft mechanics' work attitudes and behaviors. Military aviation units are encouraged to establish human resource development programs to foster the PsyCap of their soldiers, which in turn, enhances crucial work attitudes.

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KEYWORDS
Psychological capital; task performance; organizational citizenship behaviors; affective commitment; job satisfaction

What is the public significance of this article?—This study suggests that those with higher PsyCap are more likely to depict task performance, engage in extra-role behaviors, be more committed to their organizations, and be highly satisfied with their jobs in military setting. Additionally, it highlights that army aviation units are encouraged to establish human resource development programs to foster the PsyCap of their soldiers.

Introduction

Historically, scholars and practitioners have focused on job resources (e.g., autonomy, task identity) as key factors in predicting employee work attitudes and behaviors (Bakker & Demerouti, 2007). Yet, research on the role of recently introduced core construct of psychological capital (PsyCap) in explaining work attitudes and behaviors remains limited in safety critical organizations (e.g., air transport industry; Karatepe & Talebzadeh, 2016). Drawing from the positive psychology and positive organizational behavior notions, the PsyCap approach is defined as a state-like and core construct that consists of the four positive psychological resources of hope, optimism, efficacy, and resilience (Luthans, 2002a). A meta-analysis (Avey, Reichard, Luthans, & Mhatre, 2011) revealed that PsyCap is positively related to desirable work attitudes (e.g., organizational commitment, job satisfaction), behaviors (e.g., organizational citizenship behaviors), and job performance, and negatively related to undesirable work attitudes (e.g., turnover intentions and anxiety) and behaviors (e.g., deviance).

Previous studies conducted in the safety critical organizations have indicated that PsyCap is positively correlated with safety climate perceptions (Bergheim et al., 2013) and affects the work engagement, service recovery performance, and life satisfaction of flight attendants (Karatepe & Talebzadeh, 2016). However, to our knowledge no empirical research has yet investigated whether PsyCap will augment crucial work outcomes such as task performance, organizational citizenship behaviors (OCB), affective commitment, and job satisfaction of armed forces. Because army aviation is a particularly safety critical branch, attitudes and behaviors of army aircraft mechanics substantially affect both individual performance and flight security (Yeh, 2014). Given that PsyCap is open to development (Luthans, Avey, Avolio, Norman, & Combs, 2006), positive employee motivation in the form of PsyCap may represent a significant resource in promoting work outcomes in military aviation settings.

This study, therefore, aims to investigate the impact of PsyCap on task performance, OCB, affective commitment, and job satisfaction with particular emphasis

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on army aircraft mechanics based in Turkey. Aircraft mechanics have a responsibility to maintain safe and reliable air transport services by providing firm and quality aircraft maintenance and inspection systems (Gramopadhye & Drury, 2000). Hence, aircraft mechanics influence each stage of the flight activity; their positive psychological characteristics are as crucial as their technical skills.

The present study aims to make several unique contributions to the current literature on PsyCap and military psychology literature. First, Luthans and Youssef (2007) argued that "many questions remain unanswered regarding the applicability of PsyCap to other contexts such as organizations of various sizes, in a variety of industries, and in virtual business environments" (p. 340). Based on this research call, further research is required to investigate the influence of PsyCap on work outcomes in various industries. Thus, we believe that the current study will expand this line of research by investigating the impact of PsyCap on work outcomes in military aviation setting.

Our second potential contribution of the present study will relate to the predictors of attitudinal outcomes and work performance of aviation soldiers. Previous studies have indicated that job resources (e.g., autonomy, task identity) model may play a role in predicting work engagement and performance (e.g., Chen & Chen, 2012), whereas some others have argued that self-efficacy might function as a key factor for organizational outcomes (e.g., Xanthopoulou, Baker, Heuven, Demerouti, & Schaufeli, 2008) in airline setting. The present study will expand this line of research debate by testing whether PsyCap might also play a crucial role in predicting soldiers' desirable work attitudes and behaviors in army aviation branch.

Third, our study has a practical contribution for military air transport management. The airline industry is a safety critical and sensitive service industry (Yeh, 2014). Human error has been documented as a major concern in this industry (e.g., Shappell et al., 2007). Positive employee motivation in the form of PsyCap might represent a significant resource in promoting work outcomes which has important practical implications for managing human resources in army airline industry. If the present study proves that PsyCap boosts aircraft mechanics' work and attitudes in aviation setting, army aviation units might be encouraged to establish human resource development programs to foster the PsyCap of their soldiers for better aircraft maintenance and air transport service because PsyCap capacities are malleable and open to development (e.g., Luthans, Avey, Avolio, & Peterson, 2010).

Conceptual framework and hypotheses development

Psychological capital

The theoretical rationale of PsyCap is based on positive psychology and positive organizational behavior approaches. The former, a newly emerging field, places a great deal of emphasis on building positive qualities such as well-being, hope, and flow and happiness (Seligman & Csikszentmihalyi, 2000), whereas psychology has traditionally largely focused on psychological problems and dysfunctions. The later, positive organizational behavior brings positive psychology to work setting and is defined as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement" (Luthans, 2002a, p. 59). Drawing from these two notions, PsyCap has been theoretically and empirically identified by Luthans and his colleagues as a state-like and a second-order core construct that consists of the four positive psychological resources of self-efficacy, hope, optimism, and resilience (Luthans, Youssef, & Avolio, 2007).

More specifically, *self-efficacy* is described as an individual's confidence or beliefs regarding his or her abilities to activate the necessary effort to successfully execute a challenging tasks within a particular context (Stajkovic & Luthans, 1998). *Hope* is defined as "a positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)" (Snyder et al., 1991, p. 287). *Optimism* is characterized in PsyCap concepts as both an attributional style that illustrates positive events as pervasive, permanent, and personal causes, and negative ones as external, temporary, and situation specific (Seligman & Csikszentmihalyi, 2000) and a positive attribution about succeeding in both the immediate present as well as the future (Carver & Scheier, 2002). The last, *resilience*, is defined as "the capacity to rebound or bounce back from adversity, conflict, failure, or even positive events, progress, and increased responsibility" (Luthans, 2002b, p. 702).

PsyCap and employee attitudes and behavior

We selected task performance, OCB, organizational commitment, and job satisfaction as outcome variables for two reasons. First, as known, those work outcomes have been argued to be pivotal work attitudes and behaviors in industrial/organizational psychology literature. Second, those four outcomes are desirable work-related attitudes and behaviors that can yield

long-term performance and sustainable, human-based organizational competitive advantage (Youssef & Luthans, 2007).

Table 1 gives a summary of studies that have examined the effects of PsyCap on job outcomes in the aviation industry. Xanthopoulou et al. (2008) found that work-related self-efficacy is related to both in-role and extra-role performance, through employees' work engagement using a sample of 44 European flight attendants. Bergheim et al. (2013) noted that the PsyCap of Norwegian air traffic controllers is positively correlated with safety climate perceptions. In a recent study, Karatepe and Talebzadeh (2016) revealed that PsyCap affects the work engagement, service recovery performance, and life satisfaction of Iranian flight attendants. Our study contributes to the current debates and knowledge by investigating the impact of PsyCap on task performance, OCB, affective commitment, and the overall job satisfaction of army aviation mechanics.

Hobfoll's (1989) conservation of resources (COR) theory and Campbell, McCloy, Oppler, and Sager (1993)'s comprehensive model of performance might provide a theoretical rationale for the relationships between PsyCap and work attitudes and behaviors. According to the COR theory, individuals are inclined to acquire and accumulate four types of resources, these being objects, conditions, energies, and personal attributes (Hobfoll, 1989). When such resources are aplenty, they may create resources caravans, which in turn lead to positive outcomes (Hobfoll, 2002). Based on this notion, PsyCap can be seen as personal resources (Karatepe & Talebzadeh, 2016), whereas work attitudes and behaviors (e.g., task performance, OCB, affective commitment, and job satisfaction) result from an accumulation of individual resources. The later theory posits that motivational effort is a key antecedent of individual performance. Specifically, the four positive psychological resources of PsyCap may provide the necessary fuel for motivational drive in order to perform successfully in workplace. A fundamental theoretical mechanism for the impacts of PsyCap on employee attitudes and behaviors is that those with higher PsyCap will perform well, exhibit more OCB, and have higher organizational commitment and job satisfaction compared with those with lower PsyCap (Avey et al., 2011).

Table 1. Studies on effects of PsyCap on job outcomes in the aviation industry.

Authors	Participants	Major results
Karatepe and Talebzadeh (2016)	200 Iranian flight attendants	PsyCap → work engagement, service recovery performance, and life satisfaction
Bergheim et al. (2013)	38 Norwegian air traffic controllers	PsyCap → safety climate
Xanthopoulou et al. (2008)	44 European Flight attendants	Colleague support → self-efficacy Self-efficacy → work engagement → performance

PsyCap and task performance

Employees can contribute to their organizations in two ways: engaging in task performance and citizenship behavior (Gurbuz & Ayhan, 2017). *Task performance* refers to behaviors that are job specific, relate to core job requirements, and contribute to the technical core of the organization (Borman & Motowidlo, 1993). Based on Campbell et al.'s (1993) comprehensive model of performance, motivated effort is a key predictor of performance. The four positive psychological resources of PsyCap may provide the necessary fuel for motivational drive to perform successfully. Employees with higher PsyCap are more inclined to be energized and succeed at work, which leads to higher performance (Avey et al., 2011). Previous empirical studies indicated that PsyCap positively predicts employee task performance (Luthans, Avolio, Walumbwa, & Li, 2005; Youssef & Luthans, 2007). In a recent meta-analysis, Avey et al. (2011) found that there is a significant positive relationship between PsyCap and multiple measures of performance (self, supervisor evaluations, and objective). Based on COR and comprehensive models of performance, and the empirical evidence reviewed above, we propose that:

Hypothesis 1: Hope, optimism, efficacy and resilience will positively predict the task performance of aircraft mechanics.

PsyCap and organizational citizenship behavior

OCB or *contextual performance* is defined as behavior "that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization" (Organ, Podsakoff, & MacKenzie, 2006, p. 3). Although the research on both contextual performance and OCB constructs developed independently, it is now widely accepted that both constructs are similar in nature (Gurbuz, 2008). Based on the broaden and build theory of positivity (Fredrickson, 2003), employees who are inclined to use broader thought-action repertoires might have more potential to engage in extra-role behaviors (e.g., the ability to provide creative input). Drawing on Fredrickson's theory of positivity, it has been argued that employees with higher PsyCap are

more likely to exhibit more OCBs than those possessing lower PsyCap (Avey, Luthans, & Youssef, 2010).

PsyCap leads employees to feel responsible toward their organization, which may encourage them to apply the desired behaviors such as OCB (Norman, Avey, Nimnicht, & Pigeon, 2010). Previous empirical studies generally supports this contention (Avey, Luthans, & Jensen, 2009; Avey et al., 2010). Based on the theory of positivity (Fredrickson, 2003) and the empirical evidence reviewed above, we propose that:

Hypothesis 2: Hope, optimism, efficacy and resilience will positively predict the OCB of aircraft mechanics.

PsyCap and affective commitment

Affective commitment is defined as the "employees' emotional attachment to, identification with, and involvement in the organization" (Allen & Meyer, 1990, p. 1). A considerable number of relationships have been found between affective commitment and work outcomes such as turnover, wellbeing, and OCB (Çetin, Gürbüz, & Sert, 2015; Gurbuz, Costigan, and Teke (2018). As a referent side, an organization fulfills needs efficacy and accomplishment of employees who have high PsyCap. In turn, those employees with higher PsyCap are more likely to remain committed to their organizations (Avey et al., 2011). Positively viewing and future orientations may lead to higher overall commitment to the organization. Luthans, Avolio, Avey, and Norman (2007) found that employees with high levels of PsyCap do not consider quitting their jobs, they are more inclined to remain in their current job, and have a higher level of affective commitment. Based on the empirical evidence reviewed above, the following hypothesis is proposed:

Hypothesis 3: Hope, optimism, efficacy and resilience will positively predict the affective commitment of aircraft mechanics.

PsyCap and job satisfaction

Job satisfaction is defined as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976, p. 1304). According to Harms and Luthans (2012), PsyCap represents a state-like disposition reflected through a "positive assessment of requirements and likelihood for success based on motivated effort and perseverance" (Luthans et al., 2007, p. 550). Hence, with regard to job satisfaction, one can expect that workers with high levels of psychological capital to perceive their work in a more positive manner and consequently are more satisfied with their work situation. The idea of PsyCap as a predictor of job satisfaction is substantiated by a growing body of research which has found that the factors that constitute psychological capital are positively associated with both job satisfaction and related constructs such as performance and commitment (Luthans et al., 2007).

From a review of the literature, the core construct of PsyCap (Luthans et al., 2007) emerged as a promising index of positive work motivation. All employees naturally have different affective and behavioral propensities. Therefore, it can be accepted that an employee's sense of organizational circumstances and his or her templates of behavior differ from that of another. Thus, the PsyCap, that can be designated as exposing and subsequently advancing employees' "positive directions" (Luthans, 2002a) and any traits that may provide an increase of an individual's performance (Gohel, 2012), constitutes important with regard to processes employees develop attitudes for their jobs. Self-efficacy affects many variables such as the quality of services that are provided, an individual's motivation, an individual's performance, venturing into new work, continuity in any work an individual has begun, a feeling of fatigue when an individual makes a mistake, the individual giving up or persevering, and, finally, job satisfaction (Bandura, 1993). Self-efficacy boosts provides the confidence to carry out a job in an efficient and effective manner. Thus, we posit that PsyCap is positively related to job satisfaction (Shukla & Singh, 2013). In addition, Luthans et al. (2007) has claimed that further satisfaction may emerge when such hope is associated with optimism and/or self-efficacy in doing a particular job and the resilience to respond positively to any defeats.

Employees with a high sense of job satisfaction have a positive and constructive attitude toward their jobs and organizations, whereas those with a lower sense of satisfaction have a negative perspective (Greenberg & Baron, 2000). Prior research shows that there is a significant relationship between psychological capital and job satisfaction (Larson & Luthans, 2006; Luthans, Avey, & Patera, 2008). According to a different study by Youssef and Luthans (2007), it was revealed that there is a positive relationship between optimism, which is one of the subdimensions of psychological capital, and job satisfaction. Based on the empirical evidence reviewed above, the following hypothesis is proposed:

Hypothesis 4: Hope, optimism, efficacy, and resilience will positively predict the job satisfaction of aircraft mechanics.

Method

Sample and procedure

We tested our hypotheses with field data from 260 army aircraft technicians and their supervisors who work for Turkish Army aviation units in Turkey. We were given access to participants through one of the authors of this study. Participants were assured that their responses were confidential and participation in the study was purely voluntary. The self-administered questionnaires were hand delivered to the participants with a brief explanation about the general purpose of the study. To ensure anonymity during the data collection process, we asked participants not to write their names on the questionnaire. We asked the participants' supervisors to evaluate their subordinates' task performance. To match the subordinate participant's questionnaire with his or her supervisor's questionnaire, we used a code number noted at the top right corner of the questionnaire. Data was collected during a period of 5 months.

We distributed 450 surveys to the participants and received 206 completed surveys, representing a response rate of 57.7%. Of the 260 participants, 6.2% were female and 93.8% were male soldiers. The mean age of the soldiers was 32.84 years (SD = 5.50). With respect to the education level of the subordinates; 10.8% held a high school degree, 18.5% possessed a 2-year college degree, 65.% had a bachelor degree, and 5.8 % a master's degree. Their average tenure with the military was 14.78 years (SD = 7.74).

Measures

PsyCap

We assessed the psychological capital of the participants with the PsyCap Questionnaire (PCQ) developed and adapted in the Turkish context by Luthans et al. (2007). The PCQ has 24 items and four subscales (six items for each): hope, resilience, optimism, and efficacy. Sample items include, "I feel confident in representing in working area in meetings with management" (self-efficacy); "At the present time, I am energetically pursuing my work goals" (hope); and "I feel I can handle many things at a time at this job" (resiliency). To get a composite PsyCap score, the four subscales were averaged as suggested by Luthans et al. (2007). The Cronbach alpha estimate of the overall scales was .85. The reliabilities of the subscales are α = .80 for hope, α = .84 for resilience, α = .71 for optimism, and α = .82 for efficacy. Given that this scale was recently developed, we tested the second order factor structure of PCQ (sub factors of the PsyCap latent factor) with a confirmatory factor analysis (CFA). Consistent with Luthans et al. (2007) findings, our CFA using maximum likelihood estimation supported the proposed model, χ^2 (N = 260) = 790.61 with 246 df, $p < .001$, comparative fit index (CFI) = .92, and root mean square error of approximation (RMSEA) = .075).

Work attitudes and behaviors

There are various scales to measure the participants' job satisfaction, task performance, OCB, and organizational commitment in the literature. We chose following certain scales due to their established validity and reliability in Turkish context. Also, those scales are generally utilized in similar line of research and most relevant to this study.

Task performance. Task performance was rated with Williams and Anderson (1991) seven-item scale. A sample item is "Performs task that are expected of him/her." Supervisors rated their subordinates' task performance. The scale was adapted and validated in the Turkish context by Gurbuz, Habiboglu, and Bingol (2016). The Cronbach alpha estimate of the scale was .80.

Organizational citizenship behavior. The participants were asked to rate their own OCB using a six-item measure adapted from Williams and Anderson (1991). Sample items include "Help others who have heavy workloads." Self-reports of OCB have been used in previous studies (e.g., Gurbuz, 2008) with the expected relationships observed. The scale was adapted and validated into the Turkish context by Şahin and Gürbüz (2012). The Cronbach alpha estimate of the scales was .84.

Affective commitment. We measured participants' affective commitment with six items adapted from Meyer, Allen, and Smith (1993) organizational commitment scale. Sample items include: "I would be very happy to spend the rest of my career in this organization." The scale was adapted into the Turkish context by Wasti (2003). The Cronbach alpha estimate of the scale was .92.

Job satisfaction. Job satisfaction was measured with a nine-item scale adapted from Spector (1985). Sample items include: "I feel that I am happier in my job than most other people" and "I feel fairly well satisfied with my present job". The scale was adapted into the Turkish context by Yelboga (2009). The reliability of this scale was = .76.

The PsyCap and outcome variables were measured with a 5-point Likert scale ranging from 1 (*strongly*

disagree) and 5 (*strongly agree*). Scores were averaged across the items to form each scale score.

Control variables

Previous research indicated that PsyCap and work-related outcomes could be dependent on demographic factors such as age and tenure (e.g., Tesluk & Jacobs, 1998; Youssef & Luthans, 2007). Given that work outcome variables could be highly dependent on some military specific factors such as army rank, army locations, specific type of aircraft mechanics, we conducted one-way analysis of variance (ANOVA) to explore whether outcome variables vary significantly by army locations (i.e., Istanbul, Ankara, and Izmir), specific type of aircraft (i.e., UH-60, AH series, fixed-wings, and the others), and army ranks (form corporal to master sergeant). Our ANOVA results showed that the effect of army rank on the job satisfaction and commitment is significant. Thus, we control for aircraft mechanics' age, army tenure, and army rank to isolate potential impact for these factors on the study variables.

Analytical strategy

Because four of our variables (PCQ, job satisfaction, OCB, and affective commitment) were self-rated, we used a CFA using covariance matrix and maximum likelihood estimation with LISREL version 8.80 software (Jöreskog & Sörbom, 2006) to verify that the four self-rated variables were distinct. Results of the proposed seven-factor model (four-factor PCQ, one-factor job satisfaction, one-factor OCB and one-factor affective commitment) demonstrated a good fit with the data, χ^2 (N = 260) = 2,222.58 with 924 *df*, $p < .001$, CFI = .96, and RMSEA = .074 (Hoyle, 1995). We compared the seven-factor model with a nested model. Alternative model comparisons demonstrated that a five-factor model (four-factor PCQ, one-factor work attitudes and behavior (all items of job satisfaction OCB and affective commitment loaded on to a single factor) had a significantly poorer fit than the proposed seven-factor model. Thus, the fit indices of the nested models showed that self-rated measures were distinct (Gurbuz & Şahin, 2017).

We conducted preliminary analyses to ensure no violation of the assumptions of normality and multicollinearity. The skewness and kurtosis statistics divided by its standard errors were lower than z + 3.29 ($p < .001$). All the tolerance value are higher than 0.2 and the VIF values are below 5, indicating that multicollinearity does not pose a threat in this study (Gurbuz & Şahin, 2017; Tabachnick & Fidell, 2013). We also used the Harman's single-factor test to analyze potential common method bias (CMB). Our analysis revealed that the single factor only explained 14.62 percent of the total variance, suggesting CMB is not an overriding concern for this study. We utilized hierarchical regression analyses to test the hypotheses.

Results

Descriptive statistics, inter correlations among the variables, and scale reliabilities are presented in Table 2. Coefficient alphas of the variables shown in Table 2 exceed the cut-off point of .70. Table 2 reveals that there are moderate positive correlations between subscales of the PsyCap and the outcome variables.

To test the hypotheses, we performed a series of hierarchical regressions. We statistically controlled age, organizational tenure, and rank by entering in the first steps of each hierarchical regression equation due to their potential to account for extraneous criterion variance in past research. The results of the regression analyses are provided in Table 3. Hypothesis 1 proposed that the four subscales of PsyCap would be positively related to task performance. As shown in Table 3, the addition of the four subscales into the equation predicting task performance resulted in a significant increment in variance (ΔR^2 = .25, $p < .001$). Table 3 depicts that the significant predictors of task performance are resilience (β = .313, $p < .001$)

Table 2. Means, standard deviations, and intercorrelations among the variables.

Variables	M	SD	1	2	3	4	5	6	7	8	9
1. Hope	3.74	.75	(.80)								
2. Resilience	3.64	.63	.627**	(.84)							
3. Optimism	3.20	.58	.415**	.444**	(.71)						
4. Efficacy	3.88	.81	.576**	.636**	.432**	(.82)					
5. Task performance	4.06	.64	.391**	.475**	.240**	.421**	(.80)				
6. OCB	3.66	.90	.412**	.406**	.480**	.347**	.330**	(.84)			
7. Affective commitment	2.74	1.10	.313**	.272**	.451**	.294**	.217**	.645**	(.92)		
8. Job satisfaction	2.79	.79	.297**	.263**	.366**	.225**	.122*	.484**	.627**	(.76)	
9. Age	32.84	5.50	.049	−.028	.024	.032	.009	−.037	−.134*	−.274**	-
10. Tenure	14.78	7.74	.057	−.002	−.007	.054	.009	−.039	−.146*	−.276**	.875**

Note. OCB = organizational citizenship behaviors. n = 260, Reliability coefficients are in parentheses along the diagonal.
**$p < .01$. *$p < .05$ (two-tailed test).

Table 3. Results of regression analyses with PsyCap and outcomes.

	Task performance			*OCB*			*Affective commitment*			*Job satisfaction*		
Predictors	β	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2	β	R^2	ΔR^2
Step 1 controls		−.008	.004		.011	.023		.061	.072		.072	.083***
Age	.016			.00			−.015			−.174		
Tenure	.023			.058			−.281			−.139		
Rank	−.080			−.387***			−.456***			.007		
Step 2 predictors		.237	.253***		.288	.285***		.259	.207***		.226	.165***
Hope	.106			.167*			.111			.187*		
Resilience	.313***			.149			−.038			.016		
Optimism	−.017			.338***			.366***			.286***		
Efficacy	.170*			.012			.081			−.004		

Note. n = 205. R^2 values reported are adjusted R^2 values. The betas and ΔR^2 are taken from the second steps.
*p < .05; **p < .01; ***p < .001.

and efficacy (β = .170, p < .05). Thus, Hypothesis 1 partially supported.

Hypothesis 2 predicted that the four subscales of PsyCap would be positively related to OCB. Table 3 shows that the addition of the four subscales in the equations predicting OCB resulted in a significant increment in variance (ΔR^2 = .29, p < .001). Table 3 depicts that the significant predictors of OCB are optimism (β = .338, p < .001) and hope (β = .167, p < .05). Thus, partial support was found for Hypothesis 2.

Hypothesis 3 stated that the four subscales of PsyCap would be positively related to affective commitment. The four subscales was entered in Step 2 of the equation explained an additional variance in affective commitment (ΔR^2 = .21, p < .001). Table 3 depicts that the significant predictor of affective commitment is optimism (β = .366, p < .001). Thus, partial support was found for Hypothesis 3.

Hypothesis 4 proposed that the four subscales of PsyCap would be positively related to job satisfaction. As shown in Table 3, the addition of the four subscales into the equation predicting job satisfaction resulted in a significant increment in variance (ΔR^2 = .17, p < .001). Table 3 depicts that the significant predictors of job satisfaction are optimism (β = .286, p < .001) and hope (β = .187, p < .05). Thus, partial support was found for Hypothesis 4.

Discussion

The present study investigated the impact of the newly recognized PsyCap on task performance, OCB, affective commitment, and job satisfaction, using a sample of 260 army aircraft mechanics in Turkey. Overall the empirical results indicated that PsyCap as a core construct, consisting of hope, optimism, efficacy, and resilience, positively predicts the mechanics' task performance, OCB, affective commitment, and job satisfaction. Our findings suggest that those higher in PsyCap are more likely to depict task performance, engage in extra-role behaviors, be more committed to their organizations, and be highly satisfied with their jobs.

Consistent with the notions of COR theory (Hobfoll, 2002), aircraft mechanics' accumulated individual resources (i.e., hope, optimism, efficacy, and resilience) could create resources caravans, which in turns, lead to work attitudes and behaviors (i.e., task performance, OCB, affective commitment, and job satisfaction). In similar vein, in line with the tenets of Campbell, McCloy, Oppler, and Sager (1993)'s comprehensive model of performance, the four positive psychological resources of PsyCap will provide the necessary fuel for motivational drive for aircraft mechanics in order to perform well, exhibit more OCB, and have higher organizational commitment and job satisfaction compared with those with lower PsyCap (Avey et al., 2011).

To our knowledge, no past research investigated the effects of PsyCap components on work outcomes. Past studies generally explore the effects of PsyCap on work outcomes using the second order factor structure of PsyCap or composite PsyCap score instead of focusing the sub scales of PysCap (e.g., Luthans et al., 2007). Unlike previous studies, the present study provide empirical evidence for which of the four subscales of the PsyCap are the best predictors of our outcome variables. However, we do not know whether these results are peculiar to military setting or certain sector or profession. Future studies will need to replicate our findings with different samples to understand the relative impact of the four subscales of the PsyCap.

Regarding the four subscales of the PsyCap, our findings showed that the PsyCap components differentially predict the work outcomes in military setting. Resilience and efficacy are the significant predictors of task performance while optimism is the best predictor of OCB, affective commitment, and job satisfaction. In addition, hope is the second significant predictor of OCB and job satisfaction.

Several potential reasons might be stated why these differential effects were found. First, task performance, OCB, affective commitment, and job satisfaction are

different constructs. For example, task performance is different from OCB (Borman & Motowidlo, 1993), so logically they might have different antecedents.

Second plausible reason might be pertain to components of the PsyCap. The PsyCap is conceptualized as a second-order core construct which consists of the four positive psychological resources of self-efficacy, hope, optimism, and resilience (Luthans et al., 2007). Besides the commonalities, however, there are some salient conceptual distinctions among four components (i.e., resilience, efficacy, hope, and optimism) of the PsyCap (Youssef & Luthans, 2007). For example, efficacy is a belief within the boundaries of a specific task and and resilience is related to increased responsibility, whereas optimism and hope are more connected to explanation of positive/negative events and less connected to one's personal ability (Luthans et al., 2010). For example, employees can be resilient and efficacious about a particular task within their job but they might still be pessimistic or hopeless about their affective commitment and job satisfaction. Hence abovementioned salient conceptual distinctions might cause these differential effects in prediction of outcome variables.

Third, our findings depicted that the PsyCap components differentially predict the work outcomes in military setting. This result is not consistent with findings of Avey et al. (2011) meta-analysis. They found that PsyCap is better predictor of job satisfaction than the other work outcomes. One plausible explanation of this inconsistent result is that the relative impact of PsyCap on work outcomes can be dependent on the type of work being conducted, industry type, and culture. For example, Avey et al. observed that PsyCap has a stronger relationship with work outcomes for the US based samples as opposed to those outside the United States. Furthermore, they reported a stronger relationship between PsyCap and work outcomes in the service industry as compared to manufacturing. Thus, upcoming studies should investigate moderator roles of types of jobs, country culture, and industry type in relationship between the PsyCap and work outcomes.

Implications for theory

Consistent with earlier studies on PsyCap (Avey et al., 2010; Luthans et al., 2008, 2007), our results support the notion that PsyCap is a useful antecedent of the aviation soldiers' work and attitudes. Thus, the present study expands previous studies by exploring the effect of PsyCap on task performance, OCB, affective commitment, and job satisfaction in military aviation setting and a different cultural location, Turkey. The vast majority of previous PsyCap studies have been conducted in Western countries. Because similar relationships patterns are found in our sample, PsyCap research can proceed beyond concerns for the generalizability of PsyCap in different cultural locations.

Another contribution of the present study relates to the initiators of attitudinal outcomes and work performance of army airline personnel. Several studies have indicated that a job resource (e.g., autonomy, task identity) model may play a role in predicting work engagement and performance (e.g., Chen & Chen, 2012), whereas some others have argued that self-efficacy might function as a key factor for organizational outcomes (e.g., Heuven, Bakker, Schaufeli, & Huisman, 2006; Xanthopoulou et al., 2008). Our study expands previous studies by indicating that PsyCap could play a crucial role in predicting aviation soldiers' desirable work attitudes and behaviors in the army aviation industry. More importantly, to the best of our knowledge, the present study is the first empirical test that focuses on the impacts of PsyCap on task performance, OCB, affective commitment, and job satisfaction using a sample of 260 army aircraft mechanics in Turkey, which is an emerging economy in the competitive marketplace

Implications for practice

Our findings point to some practical implications for army air transport management. As PsyCap can boost aviation soldiers' work and attitudes (i.e., task performance, OCB, affective commitment, and job satisfaction) and has been proved to be malleable via training (e.g., Luthans et al., 2010, 2008), army aviation units are encouraged to establish human resource development programs to foster the PsyCap of their soldiers, which in turn, enhances the crucial work attitudes. For example, military organizations could use positive PsyCap training intervention model which typically last 2–3 hours, suggested by Luthans and Youssef-Morgan (2017) to enhance their soldiers' work outcomes. Specifically, a typical intervention program incorporates "goal-setting, generation of pathways, mental rehearsals of goal pursuit through various generated pathways, and contingency planning to overcome obstacles" (Luthans &Youssef-Morgan, p. 357). Military organizations can also use periodic follow-up coaching and tailor-made gamification techniques such as positive video games (e.g., Super Better), YouTube videos (e.g., Rocky or Hoosiers), and smartphone apps (e.g., Happify) to boost soldiers' motivation, ability, and psychological capital (Luthans &Youssef-Morgan). In addition, management of airline organizations might utilize PsyCap

questionnaire for training need analyses (Karatepe & Talebzadeh, 2016).

Our results revealed that resilience and efficacy are the significant predictors of task performance. To enhance soldiers' task performance, army aviation units are encouraged to foster the resilience and efficacy components of PsyCap by provides caring emotional support and appreciation to soldiers (Stajkovic & Luthans, 1998).

Another noteworthy implication is that army airline organizations should pay more attention to mechanics' PsyCap in selection processes. Considering the importance of the employee's task performance, OCB, affective commitment, and job satisfaction in relation to customer satisfaction, turnover, and absenteeism, it would be wise to embed PsyCap items in the selection process. Thus, military airline organizations should make sure that candidates who are high on PsyCap are hired for airline maintenance jobs. The only concern with such a recommendation is the applicant's tendency to intentionally inflate their personality ratings, so as to appear more qualified in the job search process (Rothstein & Goffin, 2006). Furthermore, our findings are significant beyond the context of mechanics. According to the notion of the positive psychology (Luthans, 2002a; Peterson & Seligman, 2004), we expect that similar psychological mechanisms and patterns apply in other airline occupational jobs.

Limitations and future research

There are some weaknesses that need to be addressed. Except for task performance, all variables were assessed via self-report. Sole reliance on this self-report format could be a common method variance that crept into our study's results, perhaps inflating the correlations (Podsakoff, Scott, & Podsakoff, 2012). Our study is cross-sectional. Without longitudinal data it is hard to draw definitive conclusions concerning the cause-and-effect relationships. To establish causality, future research might consider a longitudinal research design examining between PsyCap and work attitudes and behaviors with multi-source data. Second, the sample was predominantly males and came from various airline companies in Turkey. Including other military airline occupations (e.g., pilots, cabin crew), other cultures, and more female soldiers would have strengthened this study's external validity and the generalizability of the results. Together with PsyCap, other personal variables, such as self-esteem, life experiences, and psychological well-being (Youssef & Luthans, 2009) might also play a key role in understanding soldiers' attitudinal outcomes. Thus, it is advisable that future studies also investigate the impact of these antecedents on airline employee's work attitudes and behaviors. Third, we used a generic seven-item task performance scale to measure participants' superior rated task performance. Although we did make some minor changes on items of the task performance scale in order to adapt items into military context, we have to note that the scale is not a task specific measure for aircraft mechanics. This also might reason the high correlation between PsyCap and task performance. Upcoming research should use a task-specific scale instead of generic domain to get more valid and reliable results in military setting. Lastly, in the present study, we explored the influence of PsyCap on desirable attitudes. However, Avey et al. (2010) found that PsyCap is negatively related to counterproductive workplace behaviors. Therefore, future research should include undesirable work outcomes as burnt out, stress, intention to quit, turnover, and propensity for suicide in aviation samples.

Conclusion

The present study extends existing knowledge regarding recently emerging core construct of PsyCap by providing empirical evidence from a military aviation setting. The results of our study suggests that those with higher PsyCap are more likely to depict task performance, engage in extra-role behaviors, be more committed to their organizations, and be highly satisfied with their jobs. Given the effects observed in the study and importance of PsyCap, both scholars and practitioners should continue to understand the outcomes of PsyCap and promote this positive state-like capital to improve human resource performances.

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