



Post-Traumatic Growth and Global Management Competence —Enablers of Retention after Risk Exposure in International Assignment Experiences

HUERTA Gregorio¹, WANG Wen-li², HUNT David³, STEVENS Michael⁴, STEVISON James⁵

1 Naval Officer, USA, 92058

2 School of Communications and Information Systems, Robert Morris University, USA, 15108

3 Professor Emeritus, University of Southern Mississippi, USA, 39409

4 Goddard School of Business and Economics, Weber State University, USA, 84408

5 Lockheed Martin Space Systems, Huntsville, AL, USA, 35805

Abstract: Military organizations are state owned enterprises that offer a valuable source of human capital with global experiences. It is important to understand how military can retain its international personnel for subsequent deployment as veterans experience high level of risk exposures in overseas combat deployment. Post-traumatic growth and global management competence may play important roles in military retention. This research shows that although risk factors have significant negative impacts on post-traumatic growth, global management competence, and retention intention, post-traumatic growth and global management competency do have positive impacts on retention intention, which offsets the negative effects of risk factors. High retention intention of internationally experienced personnel leads to subsequent international assignments. Insights from the military retention can contribute to international human resource management of crucible international assignment experiences.

Keywords: international assignment experiences, global management competency, retention, risk factors, state owned enterprise, crucible experiences

1 Introduction

Globalization in the world economy increases the demand for a global workforce. A challenge to developed countries such as the US consists in identifying human capital capable to move the global economy in an environment of competition and adversity[5].

There are two strategies supplying global workforce: a) recruit new hires for international assignments; b) retain existing personnel who have already had some International Assignment Experiences (IAEs). Retention of personnel with IAEs is desired as new hires require special training and there is uncertainty whether or not a new hire can adapt and function well in the first international assignment. Therefore, human capital with extensive international experiences is highly valued in

international businesses[6]. Both multinational enterprises (MNEs) and state owned enterprises (SOEs) have a strong demand for international experienced workers[12]. But do personnel with IAEs intend to subsequent international assignment? What factors affect their retention intention?

Hunt[9] has introduced the notion of a “loop” to examine the individual’s intention to engage in subsequent international assignments. Given the cyclical nature of the loop, retention intention enhances one’s ability to operate internationally multiple times. The loop model consists in the repetition of a cycle consisting in overseas assignment, return, retention, and overseas assignment again. Positive individual retention intention facilitates the planning and execution of a second or third overseas assignment for those just returned from the international assignment.

Therefore it is important to study what factors affect retention intention of personnel with IAEs. MNEs and SOEs should exert extra efforts in understanding these factors and supply a workforce ready to operate beyond the domestic boundaries.

The U.S. Armed Forces are SOEs and are the sources of international experienced personnel. Current military analysts affirm that more than one million military service members are expected to transition out of the military over the next five years[8]. Combat veterans who have returned from a military deployment are good candidates for subsequent IAEs.

The transition of veterans from the military into the new challenges of a global workforce constitutes a mutual benefit for both the private sector and various SOEs operating globally. As a supply of globally experienced human capital, military SOEs have a strong influence on the widespread of international activities. Studying global knowledge of internationally experienced personnel, Oddou et al[17] posited the importance to transfer the knowledge learned abroad. Military SOEs respond to a pressuring demand for

personnel capable to transfer their knowledge gained from international experiences. Traditionally, Human Resource Management focused on veterans transitioning the military to a local job based on a demand for experienced leaders to operate in business locally[2]. In current times, globalization poses numerous challenges such as a strong demand for a global experienced workforce. For that reason, military SOEs can be studied as a source of a global workforce integrated to a global strategy.

Although military SOEs are good sources of international human resources, there is a special challenge for military IAEs—high risk exposures—as overseas deployment often involves combat. Retention of military personnel with IAEs is also difficult as subsequent overseas deployment could again expose personnel to high risks.

Do risk factors negatively affect retention intention for international assignments? If so, what factors would be the enablers of retention intention even for those personnel with high risk exposure in IAEs?

The research studies combat veterans' retention intention in the military after their crucible IAEs (i.e., international assignments with a considerable exposure to a variety of risks). This research proposes that it is the enhancement in self-efficacy indicated in Post-Trauma Growth (PTG) and Global Management Competence (GMC) that enable Retention Intention (RI) after the negative impacts of Risk Factors (RF).

Studying adverse and potentially highly transformative IAEs has been lacking in international human resource management research. A large number of studies have used either expatriate assignments or leaders' expatriate assignments as the subjects of study[6,7,12,20] but few have studied crucible IAEs.

The paper proceeds as follows. Section 2 introduces the research model and its hypotheses. Section 3 describes the survey research process and reports the results of the data analysis. Section 4 discusses the major findings and their implications. Section 5 concludes.

2 Research model

Fig.1 presents the IAE retention research model. It proposes the negative effects of Risk Factors (RF) on Post-Traumatic Growth (PTG), Global Management Competence (GMC), and Retention Intention (RI), but positive impact of PTG and GMC to RI.

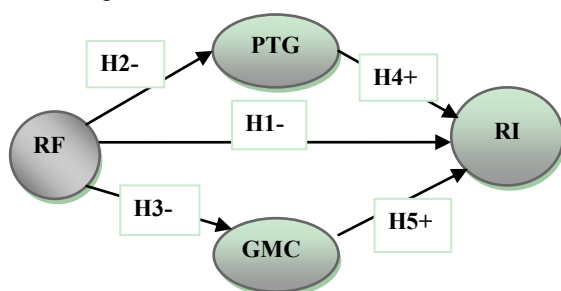


Fig.1 IAE retention research model

Access to high risks in an IAE represents a contributing factor to the individual's crucible experiences[6]. Conceptually, the types of risks endured by combatants have been studied as Risk Factors of combat deployment [19]. Examples of risk factors can be combat exposure to enemy fight or perceived war related threat[10]. The study of the negative effects of risk factors encountered in a crucible IAE advances expatriation developments because it responds to Furuya et al.'s[6] concern about how successful expatriate assignments ultimately depend on the way these crucible challenges are handled.

Risk factors have a negative effect on retention based on the unwanted situations caused by risk exposure. Previous literature examined risk factors of combat as reducers of the individual's desire or the individual's ability to stay in the job[14,22]. An extreme unwanted situation caused by risk factors is post-traumatic stress disorder (PTSD)[19]. Dysfunctions like PTSD represent retention intentions inhibitors because the individual's intentions to stay in the job are inhibited by the inability to stay.

The loop model proposed by Hunt[9] must not ignore the need to study the risk factors negatively affecting an irreplaceable element of the loop, that is, the retention intention of the individual. Even more, the challenges experienced during the IAE can be so overwhelming that Risk Factors can have a negative and unwanted influence on all the events of the loop. Based on their negative effect, risk factors are suggested as antecedents of negative retention intention. Thus, the relationship between risk factors and retention intention is linked by a direct negative causality.

H1: Risk factors negatively affect retention intention.

Post-traumatic growth is subsequent to risk factors associated to any traumatic event (e.g., the experiences of combat war zone deployment). A traumatic experience occurs first, and then the growth after the trauma happens. Examples of post-traumatic growth can be higher appreciation for life or spiritual growth. Previous literature also studied the risks of traumatic events (e.g., combat) and found a negative effect on post-traumatic growth[15]. By nature, risk factors lead to trauma and dysfunction[23]. Similar to what[15] has found that the effect of risk factors on post-traumatic growth is expected to be negative.

H2: Risk factors negatively affect post-traumatic growth.

Risk factors reflect overwhelming challenges which negatively influence the learning of international skills, also called the global management competencies[6]. Examples of global competency are new global mindsets, ability to work under pressure, flexibility to change, and learning a new language. International assignments are a powerful mechanism through which individuals learn new skill sets, cultural mindsets, perspectives, and basic assumptions[6,7,12]. Furuya et al.[6] emphasize the need of challenging and crucible experiences to better

understand the global competency learned in IAEs.

Success after crucible events implies an individual transformation resulting in global competency attainment [18]. This transformation is highly valuable for an individual to continue operating in global business environments[6]. Global management competency reflects the individual character and transformation[16] and it appears as an indicator of the self-efficacy overcoming the negative effects of risk exposure.

The negative effect of the risk factors does not guarantee that crucible experiences will lead to the learning of global management competencies. Risk factors are not considered crucible experiences unless the individual's level of self-efficacy has overcome the risk factors' negative effects. Thus, a direct effect of risk factors on global management competency will be negative unless there are substantial levels of self-efficacy capable to overcome the overwhelming challenges. Unwanted effects can develop individual dysfunctional behaviors (e.g., PTSD) resulting from trauma[23]. An individual whose life is dysfunctional is expected to focus in fixing those dysfunctions instead of harvesting the global learning acquired overseas. Thus, unless high levels of self-efficacy prevail, the levels of global management competencies are minimized as a direct negative effect of the risk factors encountered overseas.

H3: Risk factors negatively affect global management competency.

Retention intention constitutes an outcome that can be derived from successful crucible international assignments such as combat deployment. Post-traumatic growth and global management competency are indicators of self-efficacy, counteracting the negative effects of risk factors and allowing the individual to reexamine beliefs about retention intentions.

Self-efficacy is defined as the belief in one's capability to achieve a goal or an outcome[1]. Situations like combat deployment require the individual to put forth a higher degree of effort in order to meet their levels of self-efficacy. Self-efficacious individuals also recover quickly from setbacks (e.g., trauma), and they are capable to fulfill personal expectations.

The effect of self-efficacy upon trauma recovery constitutes a focal topic of discussion in order to understand the radical transformation of individuals after a crucible combat deployment. Benight and Bandura[2] suggest that coping self-efficacy emerges as an indicator of post-traumatic recovery. The enabling function of belief in one's capability to exercise control over adversity across a wide range of traumas provided empirical support to a recovery effect of self-efficacy.

Post-traumatic growth is a positive event that can be integrated in the expatriation-retention cycling loop proposed by Hunt[9]. Tedeschi and Calhoun[21] suggest post-traumatic growth as a positive goal to attain after a traumatic experience. In addition, Maguen et al[15] emphasize growth after trauma as an enhancer of positive outcomes. Post-traumatic growth is expected to

have a positive effect on retention intention.

H4: Post-traumatic growth positively affects retention intention.

The creation of global management competency as a construct obeys a need to value the international abilities of individuals[6]. Conversely, neglecting these competencies go in detriment of individual job satisfaction and job attachment[20]. Furthermore, neglecting global management competency ends up in attrition and turnover, a major concern of expatriation literature[6,7,12,13,20]. The relationship between global management competency and retention is aligned within the same concern in the literature about repatriate attrition and turnover[7]. The same relation is also aligned with the loop cycle in which global management competency makes a positive impact on the expatriation-repatriation-retention loop.

A positive influence of global management competency on retention intention is based on theory developments proposing global management competency as an indicator of international related growth. Stevens et al[20] posits global management competency as a potential high influence to subsequent performance outcomes. Furuya et al[7] proposed high levels of global management competency as determinant of positive retention and career success. Being a positive subsequent event to risk factors, global management competency has further effects on positive outcomes, specifically, retention intention.

Global management competency can be studied as a resilient mechanism reflecting the individual self-efficacy therefore outweighing any negative effect of risk factors. Global competency evidences the internal character shaped by international exposure, foreign language abilities, or foreign culture mindsets[18]. These skills reaffirm the individual's beliefs to outweigh the potential negativity caused by risk factors. Global management competency can have a positive effect on retention intention.

H5: Global management competence positively affects retention intention.

3 Methodology

3.1 Data collection

This research surveyed combat veterans from a deployable Marine Corps Infantry Battalion. The commanding officer of a Marine Unit granted permission to collect data from a group of 750 combat veterans. An online data collection methodology was used as prescribed by Dillman[3]. Data were collected respecting the confidentiality of the respondents and in accordance with the Department of Defense (DoD) Freedom of Information Act, DoD Instruction on Surveys for Military Personnel[4], and the Privacy Act of 1974. Data contained no personal identifiers.

There were 306 respondents. After deleting six outliers, 300 responses were used for data analysis. Respondents were all male, active duty, combat veterans.

Male gender was part of the sample characteristics, as all participants were part of an Infantry Battalion with only male personnel as males is the only gender qualified to fight in the frontline of combat. Tab. 1 shows the sample demographics, which are comparable to those of the Marine Corps and the Military in general. Ethnicity data were collected as well, although not shown in Tab.1. The sample had similar ethnicity rates to those of the Marine Corps and the Military in general. All respondents were deployed to a combat war zone at least once for a minimum of seven months.

Tab.1 Demographics

Age		# of Deployments	
17-25	57.00%	once	59.7%
25-35	35.70%	twice	32.3%
35-45	7%	3+ times	8.0%
Years in Service		Military Paygrade	
less than 4 yrs	51.0%	E1-E3	41.3%
4-10 yrs	35.3%	E4-E5	40.0%
11-20 yrs	12.0%	E6-E9	15.3%
20+ yrs	1.7%	Officers	3.3%

3.2 Measurement

The measurements for all of the four constructs in the model came from the previous research. The measurements for RF, PTG and GMC are well-tested in the literature. Modification was made to the Intention measurement to reflect the need for military retention intention.

The Risk Factors Scale is part of a broader inventory called the Deployment Risk and Resilience Inventory (DRRI). Recent literature has used the DRRI to operationalize the Risk Factors of deployment[19]. Risk factors are measured using four subscales with 37 questions total: combat exposure, life quality, perceived threat, and deployment/combat environment.

The Post-Traumatic Growth Inventory (PTGI) was designed to assess four positive outcomes following traumatic events with 21 questions total: relating to others, new possibilities, personal strength, and spiritual growth. PTGI is an appropriate scale for this study as it has been used in the literature to study the impact of traumatic events endured by combat deployed personnel [14].

The GMC scale measures individual's knowledge gained abroad[16]. GMC is operationalized assessing perception management, relationship management, self-management skills, and social desirability with 159 questions total. GMC pioneers the operationalization of global skills, a newly studied construct in the literature [6,7]. GMC constitutes a defining characteristic of crucible IAEs, making this instrument appropriate for this research.

Retention Intention scale positively assesses the intention of service-members to take future international assignment loops. Retention Intention has a -item survey (a) the intention to re-enlist/remain in the Military at the next opportunity; (b) the intention to recommend others to join the military service; (c) the positive choice to stay in the Military beyond the service obligated time; and (d) the intention to retire from the Military. This scale is also derived from the literature[24].

3.3 Data analysis

Tab. 2 displays means and standard deviations for all constructs. The average rating for Risk Factors was high (4.1 out of 5). The average rating for retention intention was reasonable (4 out of 5). GMC is rated higher (3.65 out of 5) on average than PGT (3.25 out of 5). Note that GMC is a particular long instrument with 159 questions. Data collected from 300 respondents on this instrument are valuable. If the sample were not from the military, it would have been difficult to collect the data.

Tab.2 Descriptive statistics

	Mean	Standard Deviation	N
RF	4.10	0.29	300
PTG	3.25	0.78	300
GMC	3.65	0.39	300
RI	4.08	0.63	300

Reliability results (Cronbach's alpha) from testing the measurement model are: 0.80 for RF, 0.93 for PTG, 0.90 for GMC, and 0.78 for RI.

Confirmatory factor Analysis (CFA) was conducted obtaining goodness of fit indices depicting measurement model fit for this study's scales (Tab. 3).

Tab.3 CFA -goodness of fit index

Model	χ^2 *	CFI	GFI	RMSEA
RF	2.31	0.99	0.99	0.023
PTG	8.53	0.99	0.98	0.103
GMC	0.07	1.00	0.99	0.004
RI	0.75	1.00	0.99	0.000

*For all χ^2 , $p < 0.001$

At the measurement level, all four scales offered a good fit showing a good model fit and suggesting appropriateness of this study. Hypotheses were tested with Structural Equation Modeling (SEM) using the AMOS software.

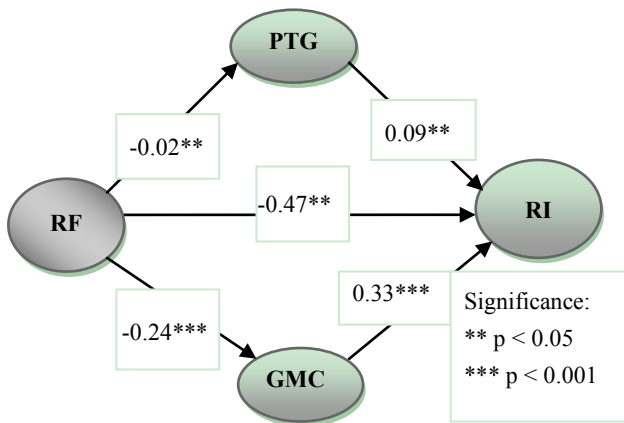


Fig.2 SEM results of IAE retention model testing

The SEM results of the IAE Retention Model is presented in Fig. 2 and Tab. 4. Path coefficients and significance levels are displayed. Risk factors has significant negative impacts on retention intention (RF→RI: $b = -0.47$, $p < 0.05$, $R^2 = 26\%$) which support H1. Risk factors has significant negative impacts on post-traumatic growth (RF→PTG: $b = -0.02$, $p < 0.05$, $R^2 = 30\%$), which support H2. Risk factors has highly significant negative impacts on global management competence (RF→GMC: $b = -0.24$, $p < 0.001$, $R^2 = 37\%$), which support H3. Post-traumatic growth has significant positive impact on retention intention (PTG→RI: $b = 0.09$, $p < 0.05$, $R^2 = 34\%$), which support H4. Global management competence has highly significant positive impact on retention intention (GMC→RI: $b = 0.33$, $p < 0.001$, $R^2 = 38\%$), which support H5.

Tab.4 SEM results

Path	<i>P-value</i>	Regression Coefficient	R^2	Hypothesis
H1: RF-->RI	$p < 0.001$	-0.47	26%	Supported
H2:RF-->PTG	$p < 0.05$	-0.02	30%	Supported
H3:RF-->GMC	$p < 0.001$	-0.024	37%	Supported
H4:PTG-->RI	$p < 0.05$	0.09	34%	Supported
H5:GMC-->RI	$p < 0.001$	0.33	38%	Supported

4 Discussions

Risk factors have negative effects on retention intention, post-traumatic growth, and global management competency, confirming the finding in the literature [14,19]. Post-traumatic growth and global management competence have positive impacts on retention intention.

Studying risk factors helps to examine the logic behind success after a crucible IAE. Empirical evidence supported that crucible experiences entail risks and adversities, but subsequent events can overcome them.

Risk factors represent an essential part in the study of crucible experiences characterized by an individual's

transformation resulting in growth. This research emphasizes the value of global experience of individuals who have endured the complexity and intensity of a demanding overseas assignment abroad. It is this crucible transformation what sets the person apart from those who never had the international assignment opportunity[16].

This research confirmed that exposure to high risks in an IAE could be a contributing factor to developing a solid international experience[18]. Not every IAE can have a continuous access to highly challenging risks; not every IAE has the same level of challenge either[18] as the level of challenge depends on the type of job, the assignment length, location, cultural differences, language, weather, economic development, and other adversities. This research also confirmed that transformations resulting from crucible experiences make the IAE global. As Osland & Bird[18] point out— not having these transformations reduces the international experience from being global.

Post-traumatic growth and global management competence positively affect retention intention no matter how negative the effect of risk factors can be. Growth attained after trauma and competence gained from global experiences are capable to offset the adverse effects of the risks involved in a crucible experience of combat deployment. Retention intention can be studied as a positive outcome from the growth and learning achieved after a risky international assignment experience even if the risk is as high as deployment to a combat war zone. It is confirmed that post-traumatic growth and global management competence are indicators of self-efficacy, which positively affect retention intention.

5 Conclusion

Risk factors have negative effects on retention intention, post-traumatic growth, and global management competency, but post-traumatic growth and global management competence have positive impacts on retention intention.

This research reaffirmed that military SOEs offer a valuable source of human capital with international experiences that can benefit international businesses after veterans retire from the military. Two levels of experience make combat veterans a valuable global workforce: 1) veterans endure and overcome adversities and intense levels of risk exposure; and 2) veterans can learn basic global skills which can be channeled into the competition and demands of the global economy.

This research integrates the findings in the Military Human Resource Management literature and the International Human Resource Management literature. For instance, Risk Factors, a construct often focused on post-deployed personnel [10,14,19] are tied to Global Management Competence and Retention Intention, two constructs widely studied in the international human resource management literature.

This research also advances theory developments about crucible overseas experiences. These findings increase the generalizability of Human Resource theory developments dealing with crucible international assignments. The crucible combat experience promises further investigation that will benefit Human Resource practices in private sector and SOEs.

Retention intention was viewed in this research as the intention to make subsequent international assignment loops. This view is directly tied into the continuation of global operations in SOEs as well as private sector organizations. Veterans who plan taking subsequent international assignments respond to a current demand of global experienced leaders.

Military SOEs will continue enhancing global business by outsourcing international experienced manpower. Both private and state owned global enterprises can benefit from the value of veterans with global experience and with the intention to take subsequent international assignments.

References

- [1]A Bandura. Self-efficacy[C]//V S Ramachaudran, Encyclopedia of Human Behavior. New York: Academic Press, 1994:71-81.
- [2]C C Benight, A Bandura. Social cognitive theory of posttraumatic recovery: The role of perceived self-efficacy[J]. Behaviour Research and Therapy, 2004,42:1129-1148.
- [3]D A Dillman. Mail and Internet surveys: The Tailored Design Method[M]. New York: Wiley & Sons, 2000.
- [4]DoD Instruction 1100.13. Surveys of DoD Personnel. November 21, 1996.
- [5]R Freeman. What Really Ails Europe (and America): The Doubling of the Global Workforce[C]//The Globalist, 2010.
- [6]N S Furuya, G Oddou, M J Stevens, M J Bird, M E Mendenhall. Managing the learning and transfer of global management competence[J]. Journal of International Business Studies, 2009,40(2): 200-215.
- [7]N S Furuya, G Oddou, M J Stevens, M J Bird, M E Mendenhall. The effects of HR policies and repatriate self-adjustment on global competency transfer[J]. Asia Pacific Journal of Human Resources, 2007,45(1): 6-23.
- [8]D Ghigliotty. Military Veteran Hiring Could Reach 240,000, White House Says. FINS online: Finance, Technology or Sales & Marketing, 2012.
- [9]D M Hunt. A framework and model for studying the repatriation experiences of expatriates from developing nations[J]. Journal of Asia Pacific Business, 2001,3(1).
- [10]L King, D King, D Vogt, J Knight, R Samper. Deployment risk and resilience inventory: A collection of measures for studying deployment-related experiences of military personnel and veterans[J]. Military Psychology, 2006,18(2), 89-120.
- [11]R Kline. Principles and practice of structural equation modeling[M]. 2nd ed. New York, NY: The Guilford Press, 2005.
- [12]M Lazarova, J L Cerdin. Revisiting repatriation concerns: Organizational support vs. career and contextual influences[J]. Journal of International Business Studies, 2007,38 (3): 404-429.
- [13]M Lazarova, I Tarique. Knowledge transfer upon repatriation[J]. Journal of World Business, 2005,40(4): 361-373.
- [14]S Maguen, D Vogt, D King, L King. Post-traumatic growth among gulf war i veterans: The predictive role of deployment-related experiences and background characteristics[J]. Journal of Loss and Trauma, 2006, 11(5): 373-388.
- [15]M W McCall, G P Hollenbeck. Developing global executives[M]. Cambridge, MA: Harvard Business School Press, 2002.
- [16]M Mendenhall. Leadership and the birth of global leadership[C]//M Mendenhall, J Osland, A Bird, G Oddou, M Meznevski. Global Leadership: Research Management and Development. Routledge Global Human Resource Management Series. New York, 2008.
- [17]G Oddou, J Osland, R Blakeney. Repatriating knowledge: Variables influencing the "Transfer" Process[J]. Journal of International Business Studies, 2009, 40:181-199.
- [18]J Osland, A Bird. Process models of global leadership[C]//M Mendenhall, J Osland, A Bird, G Oddou, M Meznevski. Global Leadership: Research Management and Development. Routledge Global Human Resource Management Series. New York. 2008.
- [19]M A Polusny, C R Erbes, M Murdoch, P A Arbis, P Thuras, M B Rath. Prospective risk factors for new-onset post-traumatic stress disorder in national guard soldiers deployed to Iraq[J]. Psychological Medicine, 2011,41: 687-698.
- [20]M Stevens, G Oddou, N Furuya, A Bird, M Mendenhall. HR factors affecting repatriate job satisfaction and job attachment for Japanese managers[J]. International Journal of Human Resource Management, 2006, 17: 831-841.
- [21]R Tedeschi, L Calhoun. The post-traumatic growth inventory: Measuring the positive legacy of trauma[J]. Journal of Traumatic Stress, 1996,9: 455-471.
- [22]D Vogt, L King, D King. Overview of the Deployment Risk and Resilience Inventory (DRRI), Measurement Excellence and Training. Resource Information Center Newsletter, Department of Veterans Affairs. 2005.
- [23]M Westphal, G Bonanno. Post-Traumatic Growth and Resilience to Trauma: Different Sides of the Same Coin or Different Coins? Applied Psychology: An International Review. Published by Blackwell Publishing, 9600 Garsington Road, Oxford, 2007.
- [24]C Woodward. Correlates of Re-enlistment intentions among national guard members[D]. San Jose State University, 2006.