ORIGINAL ARTICLE

Pol J Aviat Med Bioeng Psychol 2016; 22(1): 30-45
DOI: 10.13174/pjambp.30.12.2016.03

PSYCHOMETRIC PROPERTIES OF PRESSURE MANAGEMENT INDICATOR SCALE (PMI): THE PRELIMINARY STUDY ON A POLISH SAMPLE

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Source of support: This study was conducted as a part of the statutory research project UMO PBF-1/15 at the Cardinal Stefan Wyszynski University in Warsaw.

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Introduction: The aim of this article is to present another step in the process of validation of the Polish version of the Pressure Management Indicator (PMI) scale by C.R. Cooper, H. Kahn and S. Williams that was adapted by J. F. Terelak and J. Lewandowska in the year 2000.

Methods: We present psychometric methods that were used for the analysis of the discriminative power of particular PMI items, reliability of its subscales and validity of the whole tool.

Results: Our validation analysis, performed in a group of 309 workers from the public sector, allows us to state that the results are satisfactory in terms of both reliability and validity of PMI. We found it necessary to perform further research in a larger sample to carry out factor analysis of the validated test.

Conclusions: The current version of PMI is characterized by good reliability and validity.

Keywords: occupational stress, test validation, Pressure Management Indicator (PMI)

Tables: 9 • **References:** 28 • **Full-text PDF:** http://www.pjambp.com • **Copyright** © 2016 Polish Aviation Medicine Society, ul. Krasińskiego 54/56, 01-755 Warsaw, license WIML • **Indexation:** Index Copernicus, Polish Ministry of Science and Higher Education

INTRODUCTION

The aim of this article is to present complex data on the Polish version of the *Pressure Management Indicator* (PMI) scale by C.R. Cooper, H. Kahn and S. Williams [28]. The Polish adaptation of the scale was done by Terelak and Lewandowska [27], who translated all items from English to Polish. The authors suggested that the Polish version of PMI should be called Occupational Stress Scale – PMI. These authors also determined the reliability of PMI subscales as well as the discriminative power of individual items. As validity criteria, they accepted the agreement between PMI subscale correlations and theoretical assumptions. The study was carried out in a group of 114, so-called, white-collar workers. However, the authors suggested that further work is needed to improve psychometric properties of the scale. This suggestion is well-justified, as Cronbach's alphas were 0.48-0.68 in eight of the 22 subscales. Other authors, who also worked on validating PMI or OSI (from which PMI was developed), also noticed that unsatisfactory psychometric values were obtained in some subscales such as Type A Drive, Control, Personal Influence or Coping with Stress [9,18,22,28]. Steiler and Paty [21] report that in larger groups it was possible to obtain more favorable reliability values in the above-mentioned subscales, although they were not completely satisfactory. The Polish version of PMI was also adapted on a small group of participants and therefore low reliability values were seen in many subscales.

Because of the above-described problems, we decided to replicate the validation procedure for the PMI questionnaire. In this article, we present the results of the analysis of discriminative power of individual items, reliability of particular subscales and validity of the entire tool. We describe the study procedure, calculation and interpretation of the results of the revised version of PMI. We also propose further avenues of research related to this psychometric tool.

The subject matter of occupational stress

The issue of occupational stress in widely studied by both researches and practicing psychologists. It has been shown that occupational stress in workplace significantly contributes to work absence and consequently to both poor organizational function and financial outcomes [12,14]. It is estimated that up to 50-60% of work absences are related to occupational stress. In Europe, stress is regarded as the second most common cause of work-related diseases. The number of people suffering from occupational stress has been increasing, which is associated with growing expectations towards workers. Interestingly, despite many publications in the field of occupational stress, there still is a lack of potential systematic solutions [3,4,8,20,25]. It should be emphasized though that the main problem and challenge, with which researchers continuously work, is the ever-changing job market. Currently, the most commonly described factors contributing to occupational stress are limited-time contracts, increased uncertainty of employment, increased work burden and associated with it stress and lack of balance between professional and personal life (other stressors related to work include globalization, dispersion of job market, increased use of flexible work contracts) [12,23]. The study of occupational stress is difficult because of its multifactorial nature. However, it is important with regard to health burden of employees and financial costs for employers. Precise determination of occupational stress allows for designing and introducing efficacious programs aimed at improving working condition and reduction of workplace stress. It is necessary to find the sources of occupational stress, its effects on workers, and to determine the traits of workers that influence the relationship between stress sources. This is enabled, for instance, by PMI.

METHODS

The theoretical basis for PMI is the transactional theory of stress and coping by Lazarus and Folkman [17], which puts forward that the relations between stressors and their effects is mediated by relatively stable psychological characteristics of the individual (i.e. traits and dispositions). This means that not every stressor will evoke a stress response, which can only happen when the worker assigns to it a threatening or difficult meaning that could not be managed with the available coping resources. This results in reduced well-being of the worker. At the heart of the Lazarus and Folkman's conception there is the process of interpretation of the relation between the individual and the environment [5,28]. Occupational stress arises therefore as a consequence of the contact between the worker and the workplace environment. Lack of concordance between the individual and particular workplace environment will produce tension (stress) [6]. The transactional nature of the relation between the worker and the workplace is also emphasized, which also underlines the importance of the individual in experiencing occupational stress. Occupational stress should be

regarded as a complex and multifactorial process. Based on the theory of workplace stress sources and earlier research, the authors of PMI include work-related factors (workload, role in organization, career opportunities, relations at work, structure and organizational culture) as sources of stress. On a more detailed level, the measurement of stress sources in PMI relates to workload, relationships, recognition, organizational climate, personal responsibility, managerial role, home/ work balance and daily hassles. On the other hand, among stress effects the following physical and psychological effects are measured - physical symptoms, Energy Levels, state of mind, resilience and confidence level. Moreover, among stress effects, job satisfaction factors are also included (job satisfaction and organizational satisfaction) along with organizational factors (organizational security and organizational commitment) [28]. Among the moderators, three groups of factors are included: 1) Type A – Drive (patience/impatience); 2) Control and personal influence; 3) Problem focus, life/ work balance and social support.

The validation process of PMI was carried out according to relevant recommendations described in the literature of the subject matter [1,2,11,13]. We also took into account the results of validation studies carried out by different authors [9,21,22,28].

The reliability of PMI was measured as "internal consistency" according to the formula for Cronbach's alpha. This can determine to what extent "the test is a pure measure of the measured variable and to what degree responses to individual items measure the same thing as the entire test" [2 p.473] 2, p.473).

The study was performed in 8 different occupational groups in the public sector. In total, we enrolled 309 participants including physicians (N=54), paramedics (N=64), teachers (N=52), psychologists (N=51), lawyers (N=39), priests (N=32) and firemen (N=17). The mean age in these occupational groups was 35.35 years (SD=10.79). The oldest were teachers (M=42.77, N=48) and physicians (M=40.21, N=53), and the youngest were paramedics (M=24.75, N=64). More than a half of participants were women (55.7%, N=299). They dominated in the following occupations: psychologists (88.2%), paramedics (71.9%), teachers (63.5%) and lawyers (64.1%). Men dominated among priests (100%), physicians (61,1%) and firemen (41,2%). The majority of participants were single (42.1%) and married people (39.5%). The largest number of married participants were found among physicians and teachers. It is worth noting that 4.9% of all participants did not specify their marital status and 90% of participants had higher education.

RESULTS

Age. In order to verify the relationship between occupational stress and age, we conducted correlational analysis with the use of Pearson's r coefficient. In our study group, age weakly correlated only with selected elements of occupational stress. Higher age was associated with lower Type A Drive (TD) (r = -0.24, p = 0.001, N=291), better state of mind (MA) (r = 0.11, p = 0.05, N=298), higher confidence level (MW) (r = 0,.3, p = 0.031, N=299), lower satisfaction with organizational climate (PO) (r = -0.13, p = 0,.31, N=290), lower workload (PW) (r = -0.13, p = 0.027, N=285), lower need for recognition (PC) (r = -0.19, p = 0.001, N=296) and better home-work balance (PH) (r = -0.13, p = 0.028, N=290).

Gender. We compared mean scores of men and women on the individual subscales of PMI. Based on our results, gender does not discriminate scores in the subscales of Individual Differences and Sources of Tension. Three subscales were exceptions to this rule – Social Support (SS) (belonging to Individual differences), Workload (PW) and Personal Responsibility (PP) (belonging to Sources of Tension). On these subscales, women had higher scores than men. In contrast, the mean scores on the six subscales of Effects of Stress were significantly higher in men. One could conclude that men, in comparison to women, experience more physical symptoms of stress (PA), have higher energy levels (PE), better state of mind (MA), higher resilience (MR), have a higher level of confidence (MW) and higher job satisfaction (JI) as well as higher organizational commitment (OC).

Reliability of PMI

Reliability results of the PMI scale are presented in Table 1.

Table 1 presents statistics describing items that make up the subscales relating to the characteristics of workers. They determine individual differences in Type A Drive, Control and Personal Influence, and Coping with stress.

Type A behavior consists of two subscales – type A drive (TD) and Patience-Impatience (TI). Type A drive (TD) has the following characteristics: Mean = 17.68; Standard deviation = 3.62; and Cronbach's alpha = 0.62 (N=301). It consists of four items. Patience-Impatience (TI) has the following characteristics: Mean = 20.77; Standard deviation = 4.22; and Cronbach's alpha = 0.60 (N=304). It consists of five items. After removal of item 1 in

Tab. 1. Results of the reliability analysis for the Moderator Variables Scale.

Item	M	S.D.	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item -Total Correlation	Cronbach's Alpha if Item Deleted
Type A Drive (TD)						
1.	4.76	1.28	12.92	8.14	0.46	0.50
5.	4.57	1.30	13.11	7.98	0.46	0.49
7.	4.70	1.23	12.98	8.91	0.37	0.57
12.	3.64	1.49	14.04	8.23	0.31	0.62
Patience-Impatience (TI)						
1.	4.74	1.29	16.03	15.36	0.07	0.67
6.	3.82	1.36	16.95	12.54	0.35	0.54
8.	4.18	1.46	16.60	11.52	0.41	0.50
9.	4.54	1.29	16.23	11.87	0.47	0.48
15.	3.49	1.40	17.28	11.31	0.48	0.47
Control (LC)						
1.	3.14	1.37	14.80	12.72	0.35	0.62
2.	3.32	1.26	14.62	11.93	0.52	0.54
3.	3.24	1.30	14.69	11.75	0.51	0.54
5.	4.06	1.18	13.88	13.16	0.40	0.59
6.	4.18	1.47	13.76	13.14	0.26	0.67
Personal Influence (LI)						
7.	4.10	1.31	7.92	4.79	0.57	0.50
8.	4.20	1.28	7.82	4.84	0.58	0.49
13.	3.72	1.39	8.30	5.43	0.37	0.76
Problem Focus (CT)						
2.	4.16	1.25	16.77	12.07	0.47	0.75
3.	4.20	1.19	16.73	11.33	0.62	0.69
5.	4.41	1.10	16.53	12.78	0.48	0.74
7.	3.81	1.16	17.12	12.45	0.48	0.74
8.	4.35	1.15	16.58	11.43	0.64	0.69
Life-Work Balance (CP)						
11.	3.99	1.32	13.13	8.88	0.04	0.74
13.	4.23	1.26	12.89	6.78	0.40	0.47
14.	4.25	1.26	12.86	6.25	0.49	0.38
15.	4.65	1.15	12.47	6.22	0.60	0.31
Social Support (SS)						
4.	4.48	1.23	7.61	5.53	0.41	0.72
10.	3.66	1.31	8.43	4.56	0.56	0.53
17.	3.95	1.35	8.14	4.38	0.56	0.53

the subscale of Patience-Impatience (TI), its Cronbach's alpha was raised to 0.67.

The scale of Control and Personal Influence also consists of two subscales – Control (LC) and Personal Influence (LI). Control (LC) has the following characteristics: Mean = 17.94; Standard deviation = 4.24; and Cronbach's alpha = 0.65 (N=303). It consists of five items. Removal of item 6 results in an improved Cronbach's alpha (0.67). Personal Influence (LI) has the following characteristics: Mean = 12.02; Standard deviation = 3.12; and Cronbach's alpha = 0.69 (N=303). It consists of three items.

Coping is comprised of three subscales – Problem Focus (CT), Life-Work Balance (CP) and Social Support (SS). Problem Focus(CT) has the following characteristics: Mean = 20.93; Standard deviation = 4.21; and Cronbach's alpha = 0.77 (N=306). It consists of five items. Life-Work Balance (CP) has the following characteristics: Mean = 17.12; Standard deviation = 3.09; and Cronbach's alpha = 0.57 (N=307). It consists of four items; removal of item 11 resulted in an increased Cronbach's alpha (0.74). Social Support (SS) has the following characteristics: Mean = 12.09; Standard deviation = 3.07; and Cronbach's alpha = 0.69 (N=308). It consists of three items.

Another aspect of occupational stress relates to its effects that are measured in PMI on nine sub-

Tab. 2. Results of the reliability analysis for the Outcome Variables Scale.

Item	M	S.D.	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item -Total Correlation	Cronbach's Alpha if Item Deleted
Physical Symptoms (PA)						
3.	4.85	1.38	9.42	6.32	0.62	0.81
4.	4.68	1.39	9.59	5.68	0.74	0.69
5.	4.74	1.35	9.53	6.16	0.67	0.76
Energy Levels (PE)						
1.	3.47	1.51	11.71	13.79	0.61	0.73
6.	3.68	1.68	11.50	12.90	0.60	0.74
7.	3.68	1.44	11.50	12.66	0.80	0.64
8.	4.35	1.47	10.83	15.78	0.43	0.82
State of Mind (MA)						
2.	4.33	1.37	16.34	21.12	0.61	0.80
4.	4.25	1.47	16.41	19.74	0.67	0.78
7.	4.10	1.40	16.56	20.92	0.60	0.80
10.	4.09	1.46	16.58	20.13	0.64	0.79
12.	3.89	1.49	16.77	20.36	0.60	0.80
Resilience (MR)						
3.	4.34	1.22	12.61	7.92	0.40	0.52
5.	3.60	1.44	13.36	8.35	0.21	0.67
8.	4.39	1.19	12.56	7.55	0.49	0.46
11.	4.62	1.31	12.33	7.16	0.47	0.46
Confidence Level (MW)						
1.	3.74	1.54	7.25	6.73	0.58	0.62
6.	3.51	1.40	7.48	7.93	0.49	0.72
9.	3.74	1.64	7.26	6.09	0.61	0.58
Job Satisfaction (JI)						
2.	4.34	1.23	20.03	24.80	0.70	0.85
3.	3.90	1.28	20.47	24.29	0.71	0.84
6.	4.09	1.15	20.28	25.69	0.67	0.85
7.	3.90	1.36	20.47	23.33	0.74	0.84
9.	3.91	1.33	20.46	23.92	0.70	0.84
12.	4.23	1.21	20.14	27.04	0.51	0.88
Organizational Satisfaction (JO)						
1.	3.56	1.28	17.90	30.84	0.65	0.90
4.	3.51	1.44	17.96	28.32	0.74	0.88
5.	3.38	1.25	18.08	30.26	0.72	0.89
8.	3.44	1.35	18.02	28.48	0.79	0.87
10.	3.83	1.34	17.63	29.23	0.74	0.88
11.	3.74	1.23	17.73	30.27	0.74	0.88
Organizational Security (OS)						
3.	3.47	1.29	15.79	16.87	0.25	0.71
5.	3.84	1.49	15.42	14.12	0.42	0.64
8.	3.94	1.37	15.32	14.85	0.42	0.64
13.	3.99	1.33	15.27	13.35	0.61	0.56
19.	4.02	1.42	15.24	13.70	0.52	0.60
Organizational Commitment (OC)						
2.	4.20	1.24	16.38	13.70	0.50	0.62
4.	4.43	1.20	16.15	12.96	0.63	0.57
7.	4.11	1.36	16.47	14.31	0.36	0.68
9.	3.83	1.37	16.75	13.74	0.41	0.65
11.	4.01	1.48	16.58	13.63	0.37	0.68

scales grouped into four factors: Physical Effects, Mental Well-being, Occupational Satisfaction and Organization. The results are presented in Table 2.

The factor of Physical Effects of stress relates to two subscales – Physical Symptoms (PA) and Energy Levels (PE). The subscales of Physical Symptoms (PA) has the following characteristics: Mean = 14.27; Standard deviation = 3.54; and Cronbach's alpha = 0.82 (N=308). It consists of three items. The subscale of Energy Levels (PE) has the following characteristics: Mean = 15.18; Standard deviation = 4.79; and Cronbach's alpha = 0.79 (N=305). It consists of four items.

Mental Well-being consists of three subscales – State of Mind (MA), Resilience (MR) and Confidence Level (MW). State of Mind (MA) has the following characteristics: Mean = 20.67; Standard deviation = 5.54; and Cronbach's alpha = 0.83 (N=308). It consists of five items. Resilience (MR) has the following characteristics: Mean = 17.01; Standard deviation = 3.40; and Cronbach's alpha = 0.60 (N=306). It consists of four items. After removing item 5, the reliability of MR is raised to 0.67. Confidence Level (MW) has the following characteristics: Mean = 11.00; Standard deviation = 3.71; and Cronbach's alpha = 0.73 (N=309). It consists of three items.

The factor of Occupational Satisfaction consists of two subscales – Job Satisfaction (JI) and Organizational Satisfaction (JO). Job Satisfaction (JI) has the following characteristics: Mean = 24.37; Standard deviation = 5.91; and Cronbach's alpha = 0.87 (N=300). It consists of six items. Organizational Satisfaction (JO) has the following characteristics: Mean = 21.00; Standard deviation = 6.46; and Cronbach's alpha = 0.90 (N=309). It consists of six items.

The last factor in this group – Organization consists of two subscales – Organizational Security (OS) and Organizational Commitment (OC). Organizational Security (OS) has the following characteristics: Mean = 19.26; Standard deviation = 4.60; and Cronbach's alpha = 0.69 (N=298). It consists of five items. After removing item 3 that has the weakest correlation with this subscale, the reliability rises (0.71). Organizational commitment (OC) has the following characteristics: Mean = 20.58; Standard deviation = 4.45; and Cronbach's alpha = 0.69 (N=305). It consists of five items.

Sources of occupational stress are the last element measured by PMI. They are comprised by eight subscales whose reliability coefficients are presented in Table 3. The first subscale - Workload (PW) has the following characteristics: Mean = 18.83; Standard deviation = 7.62; and Cronbach's alpha = 0.85 (N=295). It consists of six items. The second subscale - Relationships (PR) has the following characteristics: Mean = 26.33; Standard deviation = 10.93; and Cronbach's alpha = 0.92 (N=304). It consists of eight items. The third subscale – Recognition (PC) has the following characteristics: Mean = 12.29; Standard deviation = 5.47; and Cronbach's alpha = 0.80 (N=306). It consists of four items. The fourth subscale – Organizational Climate (PO) has the following characteristics: Mean = 12.41; Standard deviation = 4.63; and Cronbach's alpha = 0.72 (N=306). It consists of four items. The fifth subscale – Personal Responsibility (PP) has the following characteristics: Mean = 13.15; Standard deviation = 4.70; and Cronbach's alpha = 0.79 (N=305). It consists of four items. The sixth subscale – Managerial Role (PM) has the following characteristics: Mean = 9.71; Standard deviation = 5.30; and Cronbach's alpha = 0.77 (N=303). It consists of four items. The seventh subscale – Home-Work Balance (PH) has the following characteristics: Mean = 15.67; Standard deviation = 7.28; and Cronbach's alpha = 0.85 (N=300). It consists of six items. The eighth subscale – Daily hassles (PD) has the following characteristics: Mean = 11.38; Standard deviation = 4.43; and Cronbach's alpha = 0.68 (N=302). It consists of four items.

Our results indicate that the subscales of PMI have a satisfactory reliability. The Cronbach's alpha values (N=309) were found to be between 0.57 and 0.92 and were higher than the respective values reported by Terelak and Lewandowska in the year 2000 [27] in a group of 114 participants. It is worth noting that we found Cronbach's alphas to be below 0.69 in the case of two subscale, whereas others reported of as many as eight such subscales. Moreover, after removing the weakest items in the selected subscales (TI item 1; LC item 6; CP item 11; MR item and OS item 3) the reliability increased, as was described above.

Intercorrelations between PMI subscales

Table 4 presents correlation coefficients (Pearson's r) between PMI subscales referring to worker characteristics than influence experiencing occupational stress.

The results indicate a moderate positive correlation between the subscales of Patience-Impatience (TI) and Type A Drive (TD). Similar correlation was found between the subscales of Life-Work Balance (CP) and Problem Focus (CT). It means that a fast pace of life, indicating good coping with quick performance of tasks, is associated with a high desire for success. The ability of separating private life from professional life is helpful

Tab. 3. Results of the reliability analysis for the Stressor Variables Scale.

Item	M	S.D.	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item -Total Correlation	Cronbach's Alpha if Item Deleted
Workload (PW)						
2.	3.17	1.68	15.66	42.31	0.59	0.84
6.	3.10	1.70	15.73	39.58	0.73	0.81
12.	3.32	1.62	15.51	41.24	0.68	0.82
13.	3.36	1.64	15.47	42.52	0.60	0.84
17.	2.86	1.77	15.96	41.17	0.60	0.84
25.	3.02	1.61	15.80	42.16	0.64	0.83
Relationships (PR)						
4.	3.49	1.77	22.84	90.59	0.77	0.91
5.	3.57	1.63	22.76	93.67	0.73	0.91
8.	3.09	1.58	23.24	95.92	0.68	0.92
14.	3.30	1.80	23.03	90.63	0.74	0.91
15.	2.88	1.75	23.45	92.47	0.71	0.91
16.	3.37	1.75	22.96	89.40	0.81	0.91
18.	3.32	1.72	23.01	90.55	0.79	0.91
20.	3.31	1.58	23.02	96.47	0.66	0.92
Recognition (PC)						
3.	3.20	1.79	9.09	16.99	0.66	0.72
23.	2.88	1.79	9.41	17.11	0.65	0.73
33.	3.13	1.79	9.16	16.84	0.67	0.72
37.	3.07	1.55	9.22	20.89	0.47	0.81
Organizational Climate (PO)						
26.	2.86	1.49	9.54	13.66	0.50	0.65
29.	3.10	1.52	9.30	14.58	0.39	0.72
34.	3.44	1.68	8.96	12.31	0.53	0.63
40.	3.00	1.60	9.41	12.22	0.59	0.60
Personal responsibility (PP)						
19.	2.95	1.51	10.21	13.43	0.58	0.75
31.	2.94	1.51	10.22	13.97	0.52	0.77
35.	3.46	1.54	9.69	12.31	0.68	0.69
36.	3.81	1.46	9.35	13.43	0.61	0.73
Managerial role (PM)						
1.	2.60	1.66	7.11	15.08	0.58	0.72
21.	2.17	1.45	7.53	16.94	0.52	0.75
22.	2.04	1.49	7.66	15.95	0.59	0.71
32.	2.89	1.87	6.82	13.14	0.64	0.69
Home-Work Balance (PH)						
11.	2.43	1.46	13.24	39.37	0.62	0.83
24.	2.56	1.53	13.11	38.19	0.65	0.82
28.	2.47	1.48	13.20	38.93	0.64	0.83
30.	2.43	1.57	13.24	38.15	0.64	0.83
38.	2.86	1.70	12.81	36.05	0.69	0.82
39.	2.92	1.84	12.75	36.44	0.59	0.84
Daily Hassles (PD)						
7.	2.82	1.59	8.56	12.27	0.43	0.64
9.	2.64	1.47	8.74	12.26	0.51	0.59
10.	3.16	1.61	8.22	11.99	0.45	0.63
27.	2.75	1.52	8.63	12.28	0.47	0.61

Tab. 4. Pearson correlations coefficients between the subscales of the Moderator Variables Scale (N=309).

	1	2	3	4	5	6	7
1. Type A Drive (TD)	-						
2. Patience-Impatience (TI)	.36**	-					
3. Control (LC)		-.17**	-				
4. Personal Influence (LI)	.15*		.25**	-			
5. Problem Focus (CT)	.17**		.18**		-		
6. Life-Work Balance (CP)				.12*	.47**	-	
7. Social support (SS)				.13*	.20**	.14*	-

Note. **. Correlations are significant at $p < 0.01$ (two-tailed). *. Correlations are significant at $p < 0.05$ (two-tailed).

Tab. 5. Pearson correlations between the subscales of the Outcome Variables Scale (N=309).

	1	2	3	4	5	6	7	8	9
1. Job Satisfaction (JI)		-							
2. Organizational Satisfaction (JO)	.71**	-							
3. Organizational Security (OS)	.31**	.33**	-						
4. Organizational Commitment (OC)	.60**	.46**	.24**	-					
5. State of Mind (MA)	.29**	.24**	.41**	.25**	-				
6. Resilience (MR)	.30**	.20**	.26**	.40**	.44**	-			
7. Confidence Level (MW)	.28**	.18**	.29**	.20**	.65**	.31**	-		
8. Physical Symptoms (PA)	.18**		.43**	.21**	.58**	.30**	.37**	-	
9. Behavioral Symptoms (PE)	.25**	.20**	.36**	.26**	.70**	.39**	.53**	.63**	-

Note. **. Correlations are significant at $p < 0.01$ (two-tailed). *. Correlations are significant at $p < 0.05$ (two-tailed).

in coping with job difficulties that are require concentration on a given problem in order to solve it.

Table 5 presents correlations between PMI subscales that refer to the effects of stress.

As can be seen in Table 5, Organizational Satisfaction (JO) has a strong and positive correlation with Job Satisfaction (JI). Moreover, such a strong positive correlation was also found between Organizational Commitment (OC) and Job Satisfaction (JI). Confidence Level (MW), Physical Symptoms (PA) and Energy Levels (PE) have a strong positive correlation with State of Mind (MA). Energy Levels (PE) also have a strong positive correlation with Confidence Level (MW) and Physical Symptoms (PA). This means that a high level of satisfaction with organizational structure and functioning (JO) is associated with a high level of satisfaction with job and job-related tasks (JI). Moreover, a high level of commitment to a given job and a conviction that one's work positively influences the quality of life of workers (OC) are both associated with a high level of satisfaction with work (JI). Self-confidence, lack of physical tension (PA) and a high level of vitality (PE) favors mental well-being of workers (MA). Moreover, a high level of vitality (energy) (PE) is associated with high self-confidence (MW) and lack of physical tension (PA).

Organizational Safety (OS) and Resilience have a moderate positive correlation with Job Satisfaction (JI). Organizational Commitment (OC) also has a moderate positive correlation with Organizational Satisfaction (JO). Moreover, State of Mind (MA), Physical Symptoms (PA) and Energy Levels (PE) have a moderate positive correlation with Organizational Safety (OS). Resilience (MR) is moderately positively correlated with Organizational Commitment (OC) and State of Mind (MA). Furthermore, Confidence Level (MW), Physical Symptoms (PA) and Energy Levels (PE) have a moderate positive correlation with Resilience (MR). Physical Symptoms (PA) are moderately positively correlated with Confidence Level (MW) (Table 6). In other words, these moderate positive correlations mean that a high level of organizational stability and work stability (OS) as well as resilience that helps in "bouncing back" (MR) are associated with a high level of satisfaction with job and its related tasks (JI). A high level of commitment to one's organization (OC) is associated with a high satisfaction with organizational structure and functioning (JO). Mental well-being (MA), lack of physical tension (PA) and vitality (PE) favor convictions of organizational stability (OS). High resilience (MR) is associated with a high commitment to one's work (OC) and mental well-being (MA). Moreover, a high level of confidence (MW), lack of physical tension (PA) and vitality (PE) promote high resilience (MR). Furthermore, lack of physical tension (PA) is associated with a high level of confidence (MW).

The remaining associations between the subscales referring to the effects of occupational stress (presented in Table 5) are weak but are in line with theoretical assumptions.

Table 6 presents correlation coefficients (Pearson's r) between PMI subscales that relate to the sources of occupational stress. The results indicate strong and positive correlations between Relationships at work (PR), Organization Climate (PO), Home-Work Balance and Workload (PW). Very strong association were also found between Recognition (PC), Organizational Climate (P) and Relationships (PR). The remaining associations presented in Table 6 are strong.

The results mean that a high workload (PR), poor climate at work (PO) and difficulties in separating personal from professional problems (PH) are associated with a feeling of high job burden (PW). Lack of recognition (PC) and bad work climate (PO) coexist with poor relationships at work (PR). Moreover, lack of Recognition (PC), high Personal Responsibility (PP), Managerial Role (PM) and Daily Hassles are strongly associated with a high Workload (PW). High Personal Responsibility (PP), Managerial Role (PM), poor Home-Work Balance (PH) and Daily Hassles (PD) are strongly associated with poor relationships between workers (PR). Poor Organization Climate (PO), high Personal Responsibility (PP), Managerial Role (PM), lack of Home-Work Balance (PH) and Daily Hassles (PD) strongly promote stress associated with lack of recognition (PC). High Personal Responsibility (PP), Managerial Role (PM), lack of Home-Work Balance (PH) and Daily Hassles (PD) are strongly associated with poor Organizational Climate (PO). Moreover, Managerial Role (PM), lack of Home-Work Balance (PH) and Daily Hassles (PD) are associated with a high Personal Responsibility (PP). Lack of Home-Work Balance (PH) and Daily Hassles (PD) are associated with Managerial Role (PM). Moreover, Daily Hassles (PD) promote a high Workload (PW).

Table 7 presents Pearson's r coefficients between subscales measuring sources of stress and individual differences, and the effects of occupational stress. A strong positive association was found between Control (LC) and Organizational Safety (OS). This means that the more of control and influence in the workplace is perceived by the worker, the higher is the perception of work and organizational stability.

Moreover, Table 7 presents many moderate association between the subscales of Control (LC) and Personal Influence, which indicates that the more of control and influence at work is perceived by the worker, the more is he satisfied with his work-related tasks.

Relationships at work (PR) and Organizational Climate (PO) have a moderate positive correlation and a similar association was found between Control (LC), Personal Influence (LI) and Organizational Satisfaction (JO). This means that good relationships between workers, good work climate, feelings of control and influence promote a higher satisfaction with the structure and functioning of an organization.

Workload (PW), Relationships at work (PR), Recognition (PC), Organizational Climate (PO), Home-Work Balance (PH) and Daily Hassles (PD) have a moderate negative correlation with Organizational Safety (OS). This means that a high workload, poor relationships at work, lack of recognition, bad work climate, inability to separate personal from professional problems and a large number of everyday obstacles promote a lack of perceived organizational stability at work.

Personal Influence (LI) has a moderate positive correlation with Organizational Commitment (OC), which indicates that the greater is the freedom at work, the more of commitment the worker has.

Workload (PW), Relationships at work (PR), Recognition (PC), Organizational Climate (PO), Personal responsibility (PP), Home-Work Balance (PH) and Daily Hassles (PD) have a moderate nega-

Tab. 6. Pearson correlations between the subscales of the Stressor Variables Scale (N=309).

	1	2	3	4	5	6	7	8
1. Workload (PW)	-							
2. Relationships (PR)	.79**	-						
3. Recognition (PC)	.64**	.73**	-					
4. Organizational Climate (PO)	.70**	.71**	.69**	-				
5. Personal responsibility (PP)	.63**	.60**	.56**	.68**	-			
6. Managerial role (PM)	.57**	.56**	.52**	.55**	.56**	-		
7. Home-Work Balance (PH)	.73**	.66**	.64**	.65**	.61**	.66**	-	
8. Daily Hassles (PD)	.65**	.60**	.50**	.66**	.58**	.57**	.61**	-

Note. **. Correlations are significant at $p < 0.01$ (two-tailed). *. Correlations are significant at $p < 0.05$ (two-tailed).

tive correlation with Physical Symptoms (PA). In contrast, Control (LC) has a moderate positive correlation with Physical Symptoms (PA). This means that large workload, poor relationships with other workers, lack of recognition, bad climate at work, high personal responsibility, lack of balance between private and professional life, a large number of everyday obstacles and a high feeling of control all favor poor mental well-being of workers.

Personal Influence (LI) and Problem focus (CT) have a moderate positive correlation with resilience (MR). This means that freedom at work and task-oriented problem-solving are associated with a greater ability to handle failures.

Workload (PW), Relationships at work (PR) and Personal Responsibility (PP) are moderately negatively correlated, and Control (LC) has a moderate positive correlation with Confidence Level (MW). High workload, poor relationships at work, high personal responsibility and a strong feeling of control are associated with decreased self-confidence and a tendency to worry. Workload (PW), Relationships at work (PR), Organizational Climate (PO) and Daily Hassles (PD) have a moderate negative association with Energy Levels (PE). In contrast, Control (LC) is moderately and positively correlated with Physical Symptoms (PA). Furthermore, Workload (PW), Organizational Climate (PO) and Daily Hassles (PD) are associated moderately and negatively with Energy Levels (PE). In turn, Control (LC) has a moderate positive association with Energy Levels (PE). This promotes experiencing substantial tension, having little energy, feelings of being exploited and low vitality.

The remaining data presented in Table 7 indicate the existence of weak or very weak associations between the subscales. In general, they are statistically significant and in line with theoretical assumptions.

In conclusion, our results, similarly to original results, indicate that PMI subscales are intercorrelated. The strongest correlations are found between the subclasses that refer to Sources of stress and the weakest correlations are found in the subscales describing Individual differences.

Validity of PMI

We assessed the relationships between PMI and the scales measuring occupational burnout (LBQ), well-being (SWLS) and achievement motivation (LMI) in order to evaluate convergent validity.

Occupational burnout

In order to assess occupational burnout, one of the effects of occupational stress, we used the "Link Burnout Questionnaire" (LBQ, by M. Santinell) in the Polish adaptation by Jaworowska [15]. This tool consists of 24 items grouped into four subscales – 1) Psychophysical exhaustion (referring to psychophysical resources; high scores on this subscale indicate a high degree of exhaustion, lack of energy to work, lack of ability to regenerate oneself in order to fulfill one's obligations; moreover, high scores also indicate a life situation that is stressful and cannot be resolved with the avail-

Tab. 7. Pearson correlations between the subscales of the Stressor Variables Scale, Moderator Variables Scale and Outcome Variables Scale (N=309).

	JI	JO	OS	OC	MA	MR	MW	PA	PE
Workload (PW)	-.19**	-.19**	-.32**		-.44**	-.16**	-.31**	-.35**	-.35**
Relationships (PR)	-.29**	-.38**	-.39**	-.17**	-.36**	-.13*	-.31**	-.31**	-.25**
Recognition (PC)	-.20**	-.25**	-.34**	-.13*	-.31**		-.27**	-.27**	-.13*
Organizational Climate (PO)	-.20**	-.31**	-.48**	-.11*	-.46**	-.16**	-.30**	-.35**	-.32**
Personal responsibility (PP)			-.23**		-.37**		-.33**	-.24**	-.26**
Managerial role (PM)	-.16**		-.29**		-.27**		-.16**	-.18**	
Home-Work Balance (PH)	-.15**		-.34**		-.37**	-.19**	-.24**	-.29**	-.19**
Daily Hassles (PD)	-.19**	-.15*	-.46**		-.43**	-.23**	-.26**	-.35**	-.31**
Type A Drive (TD)					.16**	.24**	.12*		.20**
Patience-Impatience (TI)			-.15**		-.30**	.07	-.26**		-.15*
Control (LC)	.32**	.32**	.51**	.22**	.39**	.21**	.32**	.32**	.33**
Personal Influence (LI)	.37**	.33**	.21**	.50**	.29**	.30**	.20**	.17**	.21**
Problem Focus (CT)	.21**			.22**	.18**	.41**	.20**	.15*	.27**
Life-Work Balance (CP)	.15**		.17**		.19**	.28**	.14*	.16**	.17**
Social support (SS)					-.14*		-.20**		-.12*

Note. Outcome Variables Scale: JI - Job Satisfaction; JO - Organizational Satisfaction; OS - Organizational Security; OC - Organizational Commitment; MA – State of mind; MR - Resilience; MW - Confidence Level; PA - Physical Symptoms; PE - Behavioral Symptoms. **. Correlations are significant at $p < 0.01$ (two-tailed). *. Correlations are significant at $p < 0.05$ (two-tailed).

able coping resources); 2) Deterioration of relations with clients (refers to the quality of relations with customers; high scores indicate a tendency towards objective treatment of customers, indifference, cynicism, and hostility towards customers); 3) Job ineffectiveness (it is an evaluation of one's own occupational competences; high scores indicate insufficient conviction of one's own occupational competences, lack of ability to face problems at work, lack of ability to see improvements in one's customers, feelings of occupational failure); 4) Disappointment (refers to work-related expectations; high scores indicate high disappointment with work, conviction of lack of ability for personal growth, lack of passion and enthusiasm).

The LBQ scale has satisfactory psychometric properties, with internal consistency (Cronbach's alpha) of 0.63-0.84 (Jaworowska, 2014).

Table 8 presents correlations (Pearson's correlation coefficients) between occupational stress and occupational burnout. We found strong negative associations between Job Satisfaction (PMI) and Disappointment. This means that high levels of satisfaction with work and work-related tasks are associated with positive work expectations, perspectives of personal growth and convictions of work importance.

Disappointment (measured by LBQ) has a moderate positive correlation with the following PMI subscales – Patience-Impatience (TI), Workload (PW), Relationships at work (PR), Recognition (PC), Organizational Climate (PO) and Daily Hassles. Moreover, Disappointment (measured by LBQ) has a moderate negative correlation with Control (LC), Personal Influence (PI), Physical symptoms (PA), Energy Levels (PE), State of Mind (MA), Confidence Levels (PA), Organizational Satisfaction (JO), Organizational Safety and Organizational Commitment (OC). This means that a high pace of life and impatience, high workload, poor relationships at work, lack of recognition, poor work climate, everyday obstacles at work, lack of control, lack of freedom, poor physical well-being, lack of satisfaction with work structure and functioning, lack of work stability, lack of engagement at work are all associated with higher disappointment, as measured by LBQ. This is reflected by convictions of lack of importance of the work and lack of perspectives of personal growth at work.

Tab. 8. Pearson correlations between occupational stress indicators and professional burnout (N=72).

	Psychophysical exhaustion	Deterioration of relations with clients	Job ineffectiveness	Disappointment
Type A Drive (TD)				
Patience-Impatience (TI)	.37**			.43**
Control (LC)	-.24*			-.44**
Personal Influence (LI)				-.36**
Problem Focus (CT)				
Life-Work Balance (CP)	-.25*		-.48**	-.26*
Social support (SS)	.19			
Physical Symptoms (PA)	-.34**		-.26*	-.39**
Behavioral Symptoms (PE)				-.32**
State of Mind (MA)	-.37**		-.40**	-.47**
Resilience (MR)			-.34**	-.28*
Confidence Level (MW)	-.27*			-.43**
Job Satisfaction (JI)	-.34**	-.30*		-.51**
Organizational Satisfaction (JO)				-.43**
Organizational Security (OS)		-.28*	-.34**	-.42**
Organizational Commitment (OC)	-.26*	-.26*		-.45**
Workload (PW)	.42**		.28*	.36**
Relationships (PR)	.28*			.40**
Recognition (PC)	.30*	.27*	.28*	.36**
Organizational Climate (PO)	.29*		.27*	.32**
Personal responsibility (PP)			.28*	.27*
Managerial role (PM)				
Home-Work Balance (PH)			.35**	
Daily Hassles (PD)			.33**	.36**

Note. **. Correlations are significant at $p < 0.01$ (two-tailed). *. Correlations are significant at $p < 0.05$ (two-tailed).

Further data presented in Table 8 indicate that Patience-Impatience (TI) and Workload (PW) have a moderate positive correlation with Psychophysical Exhaustion (as measured by LBQ). Moreover, Physical Symptoms (PA), State of Mind (MA), Confidence Level (MW) and Job Satisfaction (JI) have a moderate positive correlation with Psychophysical Exhaustion (as measured by LBQ). This means that a high pace of life and impatience, large workload and physical tension, poor mental well-being, lack of self-confidence and lack of satisfaction with work all promote psychophysical exhaustion and inability to regenerate oneself in order to fulfill work-related tasks. The situation of the individual is seen as stressful and exceeding the available coping resources.

Job Satisfaction (JI) has a moderate negative correlation with Deterioration of relations with clients (LBQ). This means that lack of satisfaction with job (JI) promotes objective treatment of clients, indifference, cynicism and hostility towards therm.

Life-Work Balance (CP), State of Mind (MA), Resilience (MR) and Organizational Safety (OS) have a moderate negative correlation with Job Ineffectiveness (LBQ). Moreover, Home-Work Balance (PH) and Daily Hassles (PD) have a moderate positive correlation with Job Ineffectiveness (LBQ). This means that lack of balance between private and professional life, poor well-being, low resilience, lack of job stability, lack of balance between home and work environments, large number of everyday obstacles are associated with feelings of insufficient efficacy and efficiency at work, lack of ability to face problems at work, lack of ability to see progress in clients and feelings of occupational failure.

The remaining results (presented in Table 8) indicate weak or very weak relationships between the subscales of PMI and LBQ. They are in line with theoretical assumptions.

Well-being

The Satisfaction with Life Scale (SWLS) by E.Diner, R.A. Emmons, R.J. Larsen and Sh. Griffin, in the Polish adaptation of Juczynski, was used for the measurement of well-being [10]. It consists of five items referring to the sense of satisfaction with life. The SWLS has good psychometric properties, with internal consistency (Cronbach's alpha) of 0.81. Based on Pearson's r correlations, the PMI subscales tend not to correlate with well-being measured with the use of SWLS. Only Personal Influence (LI) has a moderate positive correlation with satisfaction with life ($r = 0.35$, $p = 0.003$, N=72). Moreover, high levels of State of Mind (MA) ($r = 0.28$, $p = 0.019$, N=72), Resilience (MR) ($r = 0.24$, $p = 0.034$, N=71), Confidence Level ($r = 0.24$, $p = 0.040$, N=72) and Organizational Occupation (OC) ($r = 0.27$, $p = 0.024$, N=72) promote higher general satisfaction with life, as measured by SWLS. However, these associations are very weak.

Achievement motivation

Achievement Motivation Inventory (LMI) by H. Schuler, G.C. Thornton, A. Frintrup and M. Prochaska, in the Polish adaptation by Klinkosz and Sekowski [16] was used for the measurement of motivation for achievements. The tool is comprised of 170 items grouped into 17 subscales: 1) Flexibility (EL); 2) Fearlessness (OD); 3) Preference for difficult tasks (PTZ); 4) Independence (N); 5) Confidence in success (WS); 6) Dominance (DO); 7) Eagerness to learn (ZN); 8) Goal setting (UC); 9) Compensatory effort (WK); 10) Status orientation (DP); 11) Pride in productivity (SO); 12) Engagement (Z); 13) Competitiveness (NR); 14 (Flow (F); 15) Internality (IN); 16) Persistence (W); 17) Self-control (S). The LMI has good psychometric properties. The internal consistency coefficients (Cronbach's alpha) were between 0.68 and 0.84 in a group of employed people.

We computed correlation coefficients between the subscales of PMI and LMI in order to analyzed the relationship between occupational stress and achievement motivation. The data (presented in Table 9) show that Type A Drive (TD) has a strong positive correlation with Flexibility (EL) measured by LMI. This means that a high desire for success is correlated with openness towards new tasks.

Flexibility (EL) has a moderate positive correlation with the subscales of Energy Levels (PE), State of Mind (MA), Resilience (MR), Confidence Levels (MW) and Job Satisfaction (JI). Moreover, Flexibility (EL) has a moderate negative correlation with Personal Responsibility (PP). This means that vitality, well-being, resilience, confidence and satisfaction with work, not taking responsibility for other people's activity and decisions all favor an openness towards novelty and changes (Table 10).

Type A Drive (TD), Control (LC), Physical Symptoms (PA), Energy Levels (PE), State of Mind (MA), Resilience (MR), Confidence Level (MW) have a moderate positive with Fearlessness (OD). Moreover, Workload (PW) and Personal Responsibility (PP) have a moderate negative correlation with Fearlessness (OD). This means that high levels of fearlessness, associated with low physical tension in difficult situations, are related to higher levels of motivation for success, control, lower physical

Tab. 9. Pearson correlations between occupational stress indicators and achievement motivation (N=55).

	EL	OD	PTZ	N	WS	DO	ZN	UC	WK	DP	SO	Z	NR	F	IN	W	S
TD	.51**	.35**	.32*	.42**		.30*	.39**	.48**		.33*		.30*		.27*	.39**	.37**	
TI										.36**			.39**				
LC		.34*					.37**						-.37**		.45**	.36**	
LI	.29*	.27*			.31*		.39**			.30*						.39**	
CT		.26*														.27*	.29*
CP			-.33*		-.28*				-.32*	-.32*	-.33*	-.32*	-.38**	-.31*			
SS				-.31*	-.27*												
PA		.32*										-.39**	-.40**				
PE	.32*	.42**					.27*					-.38**	-.50**		.31*	.36**	
MA	.37**	.40**					.32*						-.40**		.30*	.47**	
MR	.45**	.42**		.44**	.42**		.41**	.34**							.34*	.48**	.36**
MW	.39**	.45**	.27*	.31*	.40**		.34*						-.36**		.38**	.45**	.34**
JI	.31*		.29*				.31*	.30*						.32*		.35*	
JO													-.30*	.36**			
OS													-.36**			.27*	
OC													-.27*				
PW		-.33*											.28*				
PR		-.27*											.38**			-.32*	
PC							-.31*		.27*				.48**			-.31*	
PO		-.29*					-.29*						.28*			-.34*	
PP	-.37**	-.31*		-.26*			-.27*								-.296*	-.35**	
PM								-.28*								-.31*	
PH		-.29*					-.32*									-.37**	
PD																	

Note. Occupational stress: 1) Moderator Variables Scale: TD - Type A Drive; TI - Patience-Impatience; LC – Control; LI - Personal Influence; CT - Problem Focus; CP - Life-Work Balance; SS - Social support. 2) Outcome Variables Scale: JI - Job Satisfaction; JO - Organizational Satisfaction; OS - Organizational Security; OC - Organizational Commitment; MA – State of mind; MR - Resilience; MW - Confidence Level; PA - Physical Symptoms; PE - Behavioral Symptoms. 3) Stress Variables Scale: PW – Workload; PR – Relationships; PC – Recognition; PO - Organizational Climate; PP - Personal responsibility; PM - Managerial role; PH - Home-Work Balance; PD - Daily Hassles.

Achievement motivation: EL - Flexibility; OD – Fearlessness; PTZ - Preference for difficult tasks; N – Independence; WS - Confidence in success; DO – Dominance; ZN - Eagerness to learn; UC - Goal setting; WK - Compensatory effort; DP - Status orientation; SO - Pride in productivity; Z – Engagement; NR – Competitiveness; F – Flow; IN – Internality; W – Persistence; S - Self-control.

**. Correlations are significant at p < 0.01 (two-tailed). *. Correlations are significant at p < 0.05 (two-tailed).

tension, higher energy levels, improved mental well-being, higher resilience and confidence, and lower workload as well as lower personal responsibility.

Type A Drive (TD) has a moderate positive correlation, whereas Life-Work Balance (CP) have a moderate negative correlation with Preference for difficult tasks (PTZ). This means that a higher need for success and a lower balance between private and personal life are correlated with a tendency to prefer difficult tasks requiring substantial skills.

Type A Drive (TD), Resilience (MR) and Confidence Level (MW) correlate moderately and positively with Independence (N). In turn, Social Support (SS) has a moderate negative correlation with Independence (N). This means that the desire for success, resilience, self-confidence and lack of social support and not sharing one's own problems with other people are associated with independence in actions and making decisions.

Personal Influence (LI), Resilience (MR) and Confidence Level (MW) have a moderate positive correlation with Confidence in Success (WS). In other words, greater freedom, resilience and self-confidence promote predicting one's own actions in terms of success.

Type A Drive (TD) moderately favors Dominance (DO), i.e. a greater desire for success promotes a tendency to exert influence on other people.

Type A Drive (TD), Control (LC), Personal Influence (LI), State of Mind (MA), resilience (MR), Confidence Level (MW) and Job Satisfaction (JI) have a moderate positive correlation, whereas Recognition (PC), Home-Work Balance have a moderate negative correlation with Eagerness to Learn (ZN). This means that the desire for success, feelings of control, resilience and easiness in making decisions, mental well-being, self-confidence, satisfaction with work, being recognized and balance between personal and private life all promote eagerness to gain new knowledge.

Moreover, Type A Drive (TD) and Resilience (MR) have a moderate positive correlation with Goal Setting (UC). This means that desire for success and resilience promote both short-term and long-term aims. Life-Work Balance (CP) moderately favors Compensatory Effort (WK), which means that not being able to separate private and professional life promotes lack of constrictive decision-making that could alleviate anxiety. In other words, a balance between private and professional life is helpful in making large efforts in difficult situations in order to perform given tasks. The reason for such behavior is anxiety through "avoiding confrontation" (see Klinkosz & Sękowski, 2013, p. 86).

Type A drive (TD) and Patience-Impatience (TI) have a moderate positive correlation, whereas Life-Work Balance (CP) have a moderate negative correlation with Status Orientation (DP). This means that desire for success, lack of patience and balance between private and professional life are associated with efforts to achieve a high social position associated with respect.

Life-Work Balance (CP) has a moderate negative correlation with Pride in productivity (SO). Thus, being able to separate private and professional life is associated with a large achievement motivation reflected by desires to be proud if one's successes.

Life-Work Balance (CP) has a moderate positive correlation, whereas Physical symptoms (PA) and Energy Levels (PE) have a moderate negative correlation with Engagement (Z). This means that balance between work and private life, physical tensions and lower energy are associated with readiness to put in substantial effort and activity.

Patience-Impatience (TI), Relationships at work (PR), Recognition (PC) have a moderate positive correlation, whereas Control (LC), Life-Work Balance (CP), Physical Symptoms (PA), Energy Levels (PE), State of Mind (MA), Confidence Level (MW) and Organizational Safety (OS) have a moderate negative correlation with Competitiveness (NR). This means that impatience, poor relationships at work, lack of recognition, lack of control, inability to separate private from professional life, feelings of substantial discomfort, exhaustion, poor mental well-being, lack of self-confidence and feelings of organizational instability are associated with a tendency to compete.

Job Satisfaction (JI) and Organizational Satisfaction (JO) have a moderate positive correlation, and Life-Work Balance (CP) has a moderate negative correlation with flow (F). This means that satisfaction with work, structure and functioning of organization and lack of life-work balance are associated with a tendency to intensely engage in activities requiring high levels of concentration, i.e. the state of flow.

Type A Drive, Control (LC), Energy Levels (PE), Resilience (MW) and Confidence Level (MW) have a moderate positive correlation with Internality (IN). This means that desire for success, control, high levels of energy, resilience and self-confidence are associated with a conviction that consequences of one's own actions are more dependent on oneself.

Type A Drive, Control (LC), Energy Levels (PE), Resilience (MR), Confidence Level (MW), Personal Influence (LI), State of Mind (MA) and Job Satisfaction (JI) have a moderate positive correlation with Persistence (W). In turn, Relationships at work (PR), Recognition (PC), Organization Climate (PO), Personal Responsibility (PP), Managerial Role (PM) and Home-Work Balance (PH) have a moderate negative correlation with Persistence (W). This means that desire for success, feelings of control, high levels of energy, resilience, self-confidence, freedom, mental well-being, satisfaction with work, good climate at work, recognition of achievements, low personal responsibility, lack of tension induced by managerial duties and balance between private and professional life are associated with higher levels of persistence and engagement measured by LMI. In turn, Resilience (MW) and Confidence Level (MW), both measured by PMI, have a moderate positive correlation with Self-control (S). This means that resilience and self-confidence are associated with an ability to concentrate on and organize one's own tasks.

CONCLUSION

In this article, we presented the results of PMI validation work. Based on these results, it can be said that the current version of PMI is both reliable and valid. However, the factor structure of this scale was not studied in the Polish population and therefore such an assessment should be performed in a larger sample in future studies.

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Study Design: Jan F. Terelak, M. Małkiewicz; **Data Collection**: Monika M. Małkiewicz, Aleksandra Borkowska, Zdzisław Kobos, Dominik Gołuch, Jan F. Terelak; **Manuscript Preparation:** Jan F. Terelak, Monika M. Małkiewicz; **Funds Collection:** Jan F. Terelak, Monika M. Małkiewicz. The Authors declare that there is no conflict of interest.

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ACKNOWLEDGEMENTS

The views, opinions, and findings contained in this article are our own and should not be construed as an official Polish Air Force position, policy, or decision, unless so designated by other official documentation.

Cite this article as: Małkiewicz MM, Borkowska A, Kobos Z, Gołuch D, Terelak JF. Psychometric Properties of Pressure Management Indicator Scale (PMI): the Preliminary Study on a Polish Sample. Pol J Aviat Med Bioeng Psychol 2016; 22(1): 30-45. DOI: 10.13174/pjambp.30.12.2016.03