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PERSONALITY DISORDERS IN CHOSEN PROFESSIONAL GROUPS

Abstract

The personality constitutes very important factor of occupational development, adaptation and functioning. Personality disorders and their impact on the workplace are considered relatively seldom in literature. The authors analyze – theoretically and empirically – how earlier experiences form personality disorders and indirectly exert influence on occupational choices, and how occupational conditions and workplace could form personality disorders. In the aftermath of the research the conclusions confirm that certain forms of personality disorders depends on the experiences of childhood and adolescence, others – on the occupational career.

Key words: occupation, personality, personality disorders.

ZABURZENIA OSOBOWOŚCI W WYBRANYCH GRUPACH ZAWODOWYCH

Streszczenie

Osobowość stanowi znaczący czynnik zawodowego rozwoju, przystosowania i funkcjonowania. W literaturze przedmiotu stosunkowo rzadko rozpatruje się wpływ zaburzeń osobowości na środowisko pracy. Autorzy analizują, na podstawie teorii i badań własnych, w jaki sposób wcześniejsze doświadczenia życiowe kształtują zaburzenia osobowości i i tym samym wpływać mogą na decyzje zawodowe oraz jak warunki pracy i wykonywania zawodu wpływają na powstawanie zaburzeń osobowości. W następstwie badań i analizy wyników stwierdzono, że niektóre typy zaburzeń osobowości zależą od doświadczeń z dzieciństwa i dorastania wiążąc się z określonymi grupami zawodowymi, inne zaś – od przebiegu pracy i kariery zawodowej.

Słowa kluczowe: praca, osobowość, zaburzenia osobowości.

Personality is a crucial factor related to professional development. On one hand it influences peoples' occupational choices and their functioning in chosen professional roles[1], on the other hand work affects personality development[2]. Nevertheless its role is not exposed in literature

[1] B. Wojtasik, *Doradca zawodu. Studium teoretyczne z zakresu poradoznawstwa,* Wyd. Uniwersytetu Wrocławskiego, Wrocław 1994.

[2] M. Czerwińska-Jasiewicz, *Psychologiczna analiza cech decyzji zawodowych młodzieży szkolne,*. PZWS, Warszawa 1979, p. 21-23.

as important information[3]. This fact seems disadvantageous as „there is no way to avoid bringing personality traits to the workplace. The psychological structure that defines a unique individual can be neither eliminated nor avoided"[4].

Personality is not an unequivocal term. Personality theorists present their definitions based on their own conceptualisations. A widespread approach in psychology refers to trait theory (also called dispositional theory - one's dispositional tendencies to react coherently and repeatedly in a certain fashion), and within this approach we discern factor theories (eg. R. Cattell), dimensions theories (eg. P.T. Costa and R.R. McCrae) and personality types (eg. H.J. Eysenck). For the purpose of this article we will adopt a definition by G.W. Allport „Personality is the dynamic organisation within the individual of those psychological systems, that determine his characteristic behaviour and thought"[5]. It is therefore an overriding, integrating and directing mental structure crucial to psychological functioning. According to Cz. Nosal personality as defined above, can also be characterised by its not entirely predictable development, organisational coherence, causal properties (motivation formation, perpetration, etc.)[6]. Trait theory underlines, that „occupational choice requires certain psychological traits, and possession of certain traits becomes an important determinant of choosing a particular profession"[7]. Personality is a set of traits that can be evaluated, which means that certain structural or functional deficits allow us to discern states beyond norms - immature personality, abnormal personality and personality disorders. Personality disorder (PD) is conceptualised as a kind of mental disorders and it is defined as an enduring pattern of inner experience and behaviour that deviates markedly from the expectancy of the individuals culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment"[8]. PD meet the criteria of mental disorders, but are not mental illnesses. What it means is that they influence and limit a person's possibilities, they cause suffering or discomfort (in a person or in his/her environment) and that a person's reactions transgress customary reactions to situations and events[9]. PD's importance is moot - they can be recognised as „severe disorder of character's structure and behaviour"[10] or „serious, lasting states"[11], but also as „behavioural and psychosocial states, which are less important than symptomatic clinical disorders"[12]. A middle position allows a gradation - levels of PD ranging from uncomplicated personal difficulties to complex clinical disorders[13].

[3] K. Lelińska, *Zawodoznawstwo w planowaniu kariery,* ASPRA-JR, Warszawa 2006.

[4] M. P. Unterberg, *Personality Disorders in the Workplace*, „Business and Health", 21, 2003, p.1.

[5] G.W. Allport, *Pattern and growth in personality,* Holt, New York 1961, p. 48.

[6] Cz. Nosal, *Psychologia decyzji kadrowych,* Wyd. PSB, Kraków 1997, p. 199-201.

[7] K. Czarnecki, *Rozwój zawodowy człowieka,* IW CRZZ, Warszawa 1985, p. 41-42.

[8] DSM-4, Diagnostic and Statistical Manual of Mental Disorders (4th Edition), APA, Washington 2000, p. 685.

[9] J. Wakefield, *Disorder as a harmful dysfunction,* „Psychology Review" 1999, 2, p. 235.

[10] ICD-10. *Międzynarodowa klasyfikacja chorób i problemów zdrowotnych. Rewizja dziesiąta*, Versalius, Kraków 1994, s. 86.

[11] A.T. Beck, A. Freeman, D .Davies, *Terapia poznawcza zaburzeń osobowości,* Wyd. U, Kraków 2005, p. 5.

[12] R. Meyer, *Psychopatologia,* GWP. Gdańsk 2003, p. 240.

[13] P. Tyser, *Personality disordes - Diagnosis, Management and Course,* Arnold Publ. Ltd., London 2000.

The latest manual of mental disorders includes the following PD types (we shortly describe each with regard to their influence on interpersonal relationships and professional functioning):

- PPD (paranoid): angry hostility, coldness, withdrawal, predictable mistrust, defensive, suspicious, hipervigilant, persecutor;
- SzPD (schizoidal): apathetic, indifferent, distant, harmless, preference to be alone, remote, solitary, flat emotional expression, avoidance of social activities;
-StPD (schizotypal): absent, bizarre, being between reality and fantasy, eccentric, strange beliefs;
- AsPD (antisocial): impulsive, irresponsible, unruly, manipulative, cold, disregarding of peoples' rights, disrespectful of societal standards;
- BPD (borderline): unpredictable, unstable, manipulative, fearful of abandonment, rapidly shifting between feelings, instable in relationships;
- HPD (histrionic): seductive, shallow, vain, overreacting, exhibitionistic, seeking attention, over-dramatic;
- NPD (narcissistic): grandiose, preoccupied with fantasies of success or achievement, egoistical, arrogant, expecting special treatment, need of admiration;
- AvPD (avoidant): anxious, embarrassed, hesitant, fear of rejection, excessive concentration on feeling security;
- DPD (dependent): submissive, helpless, incompetent, need to be taken care of, fear of separation from important ones;
- OCPD (obsessive-compulsive): rigid, respectful, restrained, rule-bounded lifestyle, regulations are more important than the sense, details over generality[14].

There is also a NOS category (not other specified) of PD, thus previous classifications included PAPD (passive-aggressive personality disorder), SPD (sadistic personality disorder), ADPD (auto destructive personality disorder, self-defeating or masochistic), DPD (depressive personality disorder)[15].

It is important to notice that PD's meet all the G.W Allport's definition's criteria - they neither cause personality's structure to disintegrate nor its functions to fail, a consistency of thought patterns and behaviours is maintained, though those patterns are rigid and inadequate. A person's Self remains integral but its focus is faulty.

PD's may be caused by traumatic events („psychological trauma is the unique individual experience of an event or enduring conditions in which the individual's ability to integrate his/her emotional experience is overwhelmed or the individual experiences (subjectively) a threat to life, bodily integrity, or sanity"[16]. The acute, one-time incidents (accidents, crimes, natural disasters but also repeated combat experience) usually lead to psychosis, mutilation or PTSD; repeated or pervasive impact personality's structure, causing mainly personality disorders. Those events may take place in various life stages. For example, SzPD has its roots in very early childhood experiences, HPD and NPD are caused by events at the age of 4 or 5,

[14] based on: DSM-5, *Diagnostic and Statistical Manual of Mental Disorders (5th Edition)*, APA, Arlington 2013; L. Cierpiałkowska, *Psychologia zaburzeń osobowości,* Wyd. UAM, Poznań 2004.

[15] J.M. Oldham, L.B. Morris, *Twój autoportret psychologiczny,* Wyd. J. Santorski, Warszawa 1997.

[16] L.A. Pearlman, K.W. Saakwitne, *Trauma and the therapist,* Norton, New York 1995, p. 60.

StPD is usually linked to adolescence, while PPD and AvPD are usually caused by experiences in adulthood (also with experiences in the workplace).

The reason why problems of PS are worth mentioning within the field of profesiology is not clinical in its nature, but statistical - 10-14%[17] of population is diagnosed with PDs. One may suspect that these numbers are underestimated - PDs are diagnosed less often than schizophrenia, depression or mental disability, because they are less burdensome and their consequences are less dramatic. Nevertheless people suffering from PD experience a vast amount of discomfort, become less effective and are prone to other mental disorders.

Personality and work

Information about relations between personality disorders and work is scattered and haphazard. Therefore our aim is to synthesise it in a more systematic way. The analysis has to include connection between antecedents and predispositions to a certain profession and also the influence of occupation and labour on personality formation (in both cases we focus on developmental psychopathology).

There are a number of occupational choice theories that include the personality factor. D.E. Super describes the „I" notion that includes professional role, dispositional factors (abilities, values, interests) and situational factors.[18] Theoretically considering dispositional factors one may also include skills, aspirations and life plans, individual experiences, motives, attitudes and temperament[19]. What R. Hoppock[20] (we choose a profession - not always consciously - to meet specific needs, and the accuracy of the decision depends on the knowledge of oneself and the knowledge of the profession) and H. Ries[21] (we are looking for roles that match our ideas and interests) claim is also similar.

Life-span psychology stresses that the course of each development phase depends on the realisation of tasks from earlier phases. Developmental tasks that were not completed (according to R. Havighurst), lack of constructive conflict resolution in a specific phase (E. Erikson) or frustration of key needs at a certain stage (S. Johnson) may modify the course of personality development, limiting or distorting it. Traumatic experience during the first year of life (lack of safe attachment according to J. Bowlby or lack of basic trust according to E. Erikson) can result in shaping the framework of schizoid personality. One may be extremely introverted in the future, have a low level of emotional intelligence or displace anger and rage, which can impede relationships[22]. It is unlikely that a person with SzPD will choose a profession that requires daily cooperation with people. Similarly, experiences reaching age of

[17] M.M. Weissmann*, The epidemiology of personality disorders. A 1990 update*. „Journal of Psychology Disorders", supplement, 1992, p. 46.

[18] A. Bańka, *Psychologia pracy,* [w:] J. Srelau (red.), *Psychologia. Podręcznik akademicki*, GWP, Gdańsk 2000, s. 314, tom 3.

[19] K. Czarnecki, *op. cit*., s. 94.

[20] J. Kurjaniuk, *Funkcje normatywne klasyfikacji zawodów i specjalności*, [w:] *Modele polskich standardów kwalifikacji zawodowych.* Wydawnictwo ITE, Warszawa-Radom 1996, s. 118-119

[21] B. Wojtasik, *Doradca zawodu..., op. cit.,* s. 46-47.

[22] S. Johnson, S*tyle charakteru,* Wyd. Zysk i s-ka, Poznań 1998.

2 or 3 (time when potty training occurs according to Z. Freud or autonomy crisis according to E. Erikson) may lead to:

- limited self-reliance, strong identification with a parent (in the future one may develop DPD traits based on an authority figure),
- manifested weakness, submission and passive resistance (masochistic personality disorder),
- excessive cautiousness and rigidity, avoiding mistakes and perfectionist tendencies (OCPD)[23].

It seems obvious that those experiences impact future occupational choices and working style, especially considering control seeking and submission.

At the age of 4 or 5 („age of fun") children broaden their net of interpersonal connections outside the family. A. Roe[24] refers to this developmental stage when she describes origins of person (services, business, culture) and nonperson orientation (engineering, science, nature). When children are successful in the area of social interactions, they develop an inclination towards occupations that require interpersonal relationships. Traumatic events at this age may lead to HPD (when parental requirements are unpredictable) or NPD (when parents depreciate child's self-esteem). Theory of personality disorders views early school years as a latent phase, which means there are no critical traumas linked to developmental tasks of this stage. This however does not mean there are no experiences during this period that influence future occupational choices. For example, E. Ginzberg[25] in his theory claims that between the ages of 6 and 11 children play in a way that indicates their future occupational inclinations.

Adolescence (especially ages 11/12-17/18) is a time when people perceive their future possibilities in a more adequate way, but also it is a time when early childhood traumas become more evident in the emerging personality structure. As it is a time of identity formation, distortions of this process may steer towards schizotypal traits (so called prolonged moratorium) or borderline traits (identity not shaped properly or diffused).

PPD may develop under the influence of personal or professional experiences (including the period of adulthood) rather than events from childhood. Similarly, AvPD is usually originated in adulthood, though in this case take part earlier experiences. In consequence we presume that the schizoid, obsessive-compulsive and avoidant personality traits manifest more often among those performing jobs devoid of frequent human contact. Regarding PPD and BPD, our presumptions are less certain. Ones that need others for self-affirmation might tend to dominate over others (ASPD and NPD) or subordinate (SzPD, HPD, DPD).

Many professional development theories underline how work influences peoples' lives, including subjects like burn-out or learned helplessness. Personality disorders however have not been broadly considered. The problem is not just theoretical in its nature. As authors of the report for Department of Health and Human service write: „as individual move into adulthood, developmental goals focus on productivity and intimacy including pursuit of education,

[23] *Ibidem* (the author meant personality disorders using the term: character).
[24] A. Bańka, *op. cit*., s. 312-313.
[25] *Ibidem*, s. 312.

work, leisure, creativity and personal relationships. Good mental health enables individuals to cope with adversity while pursuing these goals"[26].

The process may be also hindered by hidden pathologies within the personality.

Empirical data regarding PD determinants might help better understand relations between personality and work. As there is not enough research in this area, in this research we have decided to analyse occupational choice, PD and work with regard to PPD, SPD, AsPD, NPD, OCPD and DPD.

Research methodology

The study was conducted on 126-person sample, subjects were derived from four different occupational disciplines: helpers (psychologists, therapists - 36 people), middle level managers (22 people), IT workers (30 people) and archivists (32 people). First two occupational disciplines are person-oriented (64 subjects), the others are nonperson-oriented (62 subjects). The sample comprised 64 male subjects and 62 female subjects. All subjects, aged 33-42, had 10-15 years of practice, which guarantees a certain level of experience and limits probability of burn-out at the same time. The research was conducted during professional training. Subjects filled out three questionnaires: a form regarding hardships, professional difficulties and PD. The hardship questionnaire consists of seven items describing life experiences from early childhood to adulthood (emotional distress, illnesses, family of origin), answered on a 5-point scale. Occupational difficulties questionnaire had a similar format (7 items, 5-point scale), and covered subjects' current professional situation (attitude towards functioning within workplace hierarchy, interpersonal relationships, time load, pressure on results, assessment of requirements with respect to possibilities). PD were measured with selected scales of „Personality self portrait" by Oldham and Morris - we measured levels of PPD, SPD, AsPD, NPD, OCPD and DPD. In each scale respondents could receive between 0 and 14 points. Diagnostic results (indicating a high probability of PD) were those exceeding 10 points (which meant that 77% or more symptoms were present). Other scales were not included for the following reasons: BPD (borderline) is often considered a level, not a type of disorder, AvPD (avoidant) often entails clinical complications, HPD (histrionic) is a disorder more frequent in women etc. We have decided however to include DPD (depressive).

Our goal was to determine a frequency of PD in certain occupational groups, and also what are the relations between PD and hardships and occupational complications. The research problems we posed were the following:

1. How often does PD appear?
2. Are there differences in PD existence within occupational groups?
3. Which PDs are related to hardships with regard to professional career and occupational choice?
4. In which PD occupational difficulties seem relevant to formation or fixation of symptoms?
5. Does sex influence relations between hardships/occupational difficulties and PD?

[26] Mental Health, *A report of the Surgeon General*, US National Library of Media, Rockville 1999, s.18.

We hypothesised that:

1. PD appears more often than clinicians assess.

2. PPD, AsPD and NPD are met more frequently among employees of person-oriented professions (helpers, management), while SPD and OCPD are more frequent among nonperson-oriented professions. It is difficult to assess frequency of DPD.

3. Hardships that occurred in private life until present moment are relevant with regard to SPD and DPD.

4. Occupational difficulties are relevant with regard to PPD and OCPD (meaningful relationships occur among AsPD and NPD and both hardships and occupational difficulties).

5. Connection between PD and hardships/occupational difficulties is stronger among women (because of their more intense response).

The research chart is following:

x_1: nondependent variable: hardships in the life course

x_2: nondependent variable: professional difficulties

y: dependent variable: PD level in 6 areas

M: intermediate variable: sex

Results

We present our results starting with analysing the dependent variable, which is frequency of PD in our sample. We present average results in each scale with regard to all occupational groups and sexes and the results that indicate appearance of PD.

Tab. 1.

PD	$\bar{x}$	♂	♀	**t**	**H**	**M**	**I**	**A**	**F**
PPD	7,48	7,12	8,24	2,42*	6,26	8,76	7,12	8,58	5,12**
SPD	6,14	7,32	4,96	5,90**	4,56	5,72	7,20	7,08	8,54**
AsPD	7,46	8,52	6,40	3,67**	5,84	9,52	7,44	7,04	3,50***
NPD	7,27	8,36	6,18	3,69**	7,07	8,82	6,48	6,71	2,74
OCPD	8,12	7,45	8,79	2,51*	7,48	8,20	8,68	8,12	2,26
DPD	9,20	8,48	9,92	2,69**	9,86	7,72	8,48	10,74	1,24

Legend: $\bar{x}$ - mean scale results, ♂ - men, ♀ - women, t - t-Student, H - helpers, M - management, I - IT workers, A - archivists, F - variance analysis for four independent groups, * p=0,05, **p ≥ 0,01

Taking to account the fact that the highest possible score in each scale was 14, one concludes that level of disorders in each scale was moderate. The highest result ($\bar{x}$ =9,20) was in the DPD scale, the lowest ($\bar{x}$ =6,14) in the SPD scale. Analysing the results within each group, we can see that men scored the highest in AsPD scale ($\bar{x}$ =8,52) and the lowest in PPD ($\bar{x}$ =7,12). Differences among PD scales in men are inconsiderable. Women are mainly depressive ($\bar{x}$ =9,92), while their level of schizoidality is the lowest ($\bar{x}$ =4,96).

In the occupational groups the highest scores were regarding DPD (helpers $\bar{x}$ =9,86; archivists $\bar{x}$ =10,74), OCPD (IT workers $\bar{x}$ =8,68) and AsPD (management $\bar{x}$ =9,52). The lowest scores among helpers ($\bar{x}$ =4,56) and management ($\bar{x}$ =5,72) were in the SzPD scale, while among IT workers ($\bar{x}$ =6,48) and archivists ($\bar{x}$ =6,71) were in the NPD scale. According to

the F statistics the mean results were significant at the level of α=0,01 in PDD, SPD and AsPD scales, and at the level of α=0,05 in NPD scale. We also conducted analyses based on score level calculations (low, moderate, high) of each PD and diagnosed coexistences of PD. We present results for high PD scores in table 2.

Tab. 2. Personality disorders (high scores) within each subgroup.

	Total		**H**		**M**		**I**		**A**		♂		♀	
	N	%	n	%	n	%	n	%	n	%	n	%	n	%
PPD	6	4,8	2	5,5	3	10,7	1	3,3	-	-	2	3,1	4	6,4
SPD	8	6,3	-	-	-	-	5	16,7	3	9,4	6	9,4	2	3,2
AsPD	9	7,1	-	-	4	14,3	3	10,0	2	6,2	8	12,5	1	1,6
NPD	11	8,7	2	5,5	6	21,4	2	6,7	1	3,1	7	10,9	4	6,4
OCPD	15	11,9	-	-	6	21,4	5	16,7	4	12,5	6	9,4	9	14,5
DPD	18	14,3	6	16,7	1	3,6	5	16,7	6	18,7	7	10,9	11	17,7
PD in 1 dimension	12	9,5	8	22,2	-	-	1	3,3	3	9,4	3	4,7	9	14,5
PD in 2 dimensions	11	8,7	1	2,7	2	7,2	4	13,3	4	12,5	9	14,1	2	3,2
PD in 3 dimensions	10	7,9	-	-	5	17,8	4	13,3	1	3,1	6	9,3	4	6,5
Σ	33	26,2	9	25,0	7	25,0	9	27,0	8	25,0	18	28,1	15	24,2

Personality disorders that occurred most often were DPD (n=18 which is 14,3% of the sample) and OCPD (n=15; 11,9%). The least subjects scored high on paranoid scale (n=6; 6,3%). In 12 cases we noted high PD levels in one dimension (9,5%), in 11 cases: two dimensional disorders (8,7%) and in 10 cases respondents scored high on 3 or more scales 97,9). In total, there were 33 people (26,2% o the sample) who met the criteria of personality disorders. Those who work as helpers scored high on depression scale (n=6; 16,7%), and on narcissism and paranoid scale (both n=2; 5,5%). Of the 9 people with PD (25%) in this group, 8 (22,2%) suffered from disorders only in one dimension. The most frequent disorder in this group was DPD (n=5; 13,5%). We found PD in most scales (except SPD) among management workers. The most frequent were high scores in scales of narcissism and compulsion (n=6; 21,4% each). 9 respondents in this subgroup (25%) met PD criteria, among whom 5 were afflicted with high scores on 3 or more dimensions. In four subjects (14,3%) we found coexistence of three disorders: AsPD-PD-OCPD. IT workers scored high on SPD, OCPD and DPD scales (n=5, 16,7% each). They aggregate in 9 subjects (27%) so that the most frequent pattern was 2 and 3 or more dimensional PD. Most often IT workers experience SPD and DPD (all two-dimensional cases; 13,3%), thus OCPD occurred in all other PD cases. Therefore we can observe certain characteristic patterns within this group. In the archivist subgroup only PPD was not present, other PD varied in their frequency of occurrence, with DPD as most frequent (n=6, 18,7%). There were 8 people who met PD criteria in this group with a typical pattern of SPD and DPD together (n=3; 9,4). Among women high PD sores concerned DPD (n=11;

17,7%), OCPD (n=9; 14,5%) and both PPD and NPD (n=4; 6,4). Whereas among men: ASPD (n=8; 12,5%), NPD (n=7, 10,9%) and SPD (n=6; 9,4%). The most common pattern is one dimensional DPD (n=8; 12,9%), while in men the results show no comprehensive pattern we could report. Proportion of PD is similar in each subgroup (25-27%), with a slight predominance among men (28,1%).

Tab. 3. Traumatic events (mean scores)

	$\bar{x}$	♂	♀	**t**	**H**	**M**	**I**	**A**	**F**
Hardships	20,12	16,48	23,76	9,27**	19,36	22,18	18,44	20,47	2,49
Occupational difficulties	18,36	17,12	19,60	3,18**	18,12	17,86	17,73	19,73	2,26
Mean	19,24	16,80	21,68	3,88**	18,47	20,02	18,08	20,01	2,97*
T	nonsig	nonsig	2,71	-	nonsig	3,12	nonsig	nonsig	-

Another aspect of our analyses, that was auxiliary, focuses on experiences that could possibly enhance the probability of PD, also in the context of future professional choices. We discern traumatic events from life - hardships, and those existing in the workplace - occupational difficulties. Level of hardships is slightly higher ($\bar{x}$ =20,12) than the level of occupational difficulties ($\bar{x}$ =18,36). the difference was not statistically significant, but we argue that there is a tendency pointing a higher importance of earlier experiences as t=1,92 which was fairly close to the critical level (α=0,05: 1,980). Mean level of traumatic events is higher among women ($\bar{x}$ =21,68) than among men ($\bar{x}$ =16,80) and the difference is statistically significant. The traumatic events were more frequent in the female group (respectively: 23,76 and 19,60) compared to the male group (16,48 and 17,12). In all the occupational groups levels of hardships exceeded levels of occupational difficulties, though only in case of management the difference was statistically significant (t=3,12). According to the F statistics, the groups did not significantly differ in levels of hardships or occupational difficulties. But in case of cumulated results F turned out to be significant, which means that on average managers and archivists have experienced more traumatic events in both private and occupational areas of functioning than helpers and IT workers. To assess (and properly interpret) the influence of chosen variables on personality development and career choice it is necessary to compute regression coefficient R. The data is shown in table 4.

The next stage of analysis was calculation of connections between traumatic events and PD. Correlation coefficients were meaningful (which is: both statistically significant and considerably high) in the following cases:

- correlation between hardships and PD (x_1-y) regarding ASPD and NPD (the more life trauma, the more frequent PD),
- correlation between occupational difficulties and PD (x_2-y) regarding PPD, NPD and DPD,
- intercorrelation between hardships and occupational difficulties (x_1-x_2) regarding NPD.

In that case we argue that for the PD to develop, certain circumstances have to occur, and they differ across various PD. Therefore:

- for PPD - occupational difficulties (x_2) and correlation between hardships (x_1) and PD

- for AsPD - hardships and no correlation between work and PD
- for NPD - traumatic events in each sphere (both independent variables)
- for OCPD - lack of traumatic events, a certain convenience in life
- for DPD - occupational difficulties (x_2) when correlation between x_2 and PD is negative
- for SPD - no significant correlations between PD and traumatic events.

Tab. 4. Correlations among variables and regression coefficient

	x_1-y	x_2-y	x_1-x_2	R^2	R
PPD	-0,186	0,482	0,156	0,303	0,550
SPD	0,238	0,132	0,276	0,062	0,248
AsPD	0,423	0,026	0,184	0,198	0,435
NPD	0,486	0,494	0,612	0,297	0,545
OCPD	-0,126	-0,192	0,546	0,038	0,196
DPD	-0,248	0,562	0,182	0,315	0,561
Helpers	0,392	0,482	0,596	0,236	0,486
Management	0,424	0,128	0,323	0,181	0,425
IT workers	0,243	0,026	0,186	0,058	0,241
Archivists	0,321	0,424	0,748	0,170	0,413
Men	0,486	0,326	0,584	0,247	0,498
Women	0,244	0,286	0,642	0,086	0,294

Legend: x_1-y: correlation between variables x_1 and y; x_2-y: correlation between variables x_2 and y; x_1-x_2: intercorrelation between nondependent variables; R^2: multiple correlation coefficient for three variables; R: regression coefficient

For women a connection between hardships and PD is stronger than in case of occupational difficulties, though stronger than in men. Intercorrelation of x_1-x_2 are high for both sexes.

When we look at the results for occupational groups, we find that:

- correlation between PD and hardships is the highest among management workers,
- correlation between PD and occupational difficulties is the highest among helpers and archivists,
- correlation between hardships and occupational difficulties is the highest also among helpers and archivists,
- no significant correlation between traumatic events (x_1; x_2) and PD in the IT workers subgroup.

As correlation coefficients do not inform us of causal relationships, we have computed regression coefficients for each subgroup. It allows us to establish to what extent the analyzed variables explain variance of results. For the occupational groups, R coefficient suggests, that the variables allow us to explain 49% of variance in the helpers group, 42% among management workers, 41 % among archivists and only 24% among IT workers. The variables explain more variance of the results among women (49%) than men (29%). The highest level of explained variance was evident for DPD (56%), PPD (55%) and NPD (54%).

Discussion

Personality disorders are rarely analysed for cognitive reasons and also the clinical data regarding PD is more difficult to collect and compute in comparison with other disorders. When student samples were analysed, levels of PD were smaller (eg. for SPD 6,4%, NPD 6,4%, OCPD 12,8%) whereas in research trial it was 31,4%[27]. The data suggests that PD occurs more often than it is suspected based upon clinical data. They are present at the level of about 25% population. Therefore the first hypothesis was confirmed. Each occupational group shows a distinct pattern of PD or their co-occurrence, which corroborates the second hypothesis. Both total results and analysis with regard to each occupational group, show that:

- helpers tend to score high on DPD scale,
- management workers are characterised by high levels of NPD, AsPD, PPD and partly OCPD (meaning: some of them), while not experiencing SPD nor DPD,
- among IT workers it is more common to score high on SPD, OCPD and DPD scales,
- archivists are characterised by high levels of PPD (some of them, while other groups tend not to be), SPD, OCPD and DPD.

SPD and OCPD with low levels of NPD seem to be a pattern distinctive for non-person oriented professions, whereas low SPD is typical for person-oriented professions. PPD is connected to relations based on rivalry and competition (cautiousness with a tendency to manipulate). Lack of professional success can also foster PPD. People with AsPD have n scruples when they pursue their goals, and working conditions that focus on efficiency may promote manipulative or Machiavellian tendencies (however we must note that genetic and educational environment are significant and they explain about 60% of the variance of AsPD). AsPD and NPD were frequent among management workers. OCPD may be a form of coping with anxieties and neuroticism associated with early traumas. In result one tends to be perfectionist, avoid mistakes at all cost, which sometimes is linked to pursuit of success (managers). Depressiveness among archivists is difficult to interpret, whereas in helpers profession it seems understandable. These professions „attract depressive people, and furthermore, most of the instruction introduces „normal depression" periods"[28] . The fact of being exposed to problems of other people is an important factor as well. In case of sex, we discovered that women were more prone to PPD, OCPD and DPD, whereas men - to SPD, AsPD and NPD. The hypotheses were confirmed with the fact that it is impossible to attribute DPD strictly to one occupational group. Subsequent research problems regarded relations between traumatic events and professional functioning. The fewest total traumatic events were experienced by managers and archivists (in both groups, as well as others the more frequent were hardships - except for women). Correlation analyses point that hardships are more often connected to AsPD and SPD than occupational difficulties. For NPD there is high correlation with both areas of traumatic experience. In case of PPD and DPD there was a connection with occupational difficulties (while correlations with hardships were negative). Negative correlations were also present for both life trauma areas and OCPD (people who do not encounter or do not

[27] J. Herbeger, *Społeczno-kulturowe uwarunkowania zaburzeń osobowości*, [w:] Z. Janiszewska-Nieścioruk (red.), *Człowiek wobec wyzwań i zagrożeń współczesności*, Wyd. UZ, Zielona Góra 2015.

[28] N. McWilliams, *Diagnoza psychoanalityczna,* Gdańsk 2009, GWP, s. 25.

acknowledge experiencing traumatic events are prone to obsession and compulsion). The independent variables' influence on PD emergence is higher for PPD, NPD, DPD and AsPD. It is much lower for SPD and OCPD, but it could be attributed to lack of recall of traumatic events. The unexplained variance is related to genetic factors and current environmental experiences, not included in this study.

Conclusions and limitations

Our study has brought interesting findings, which contribute to both the knowledge about personality disorders themselves as well as personality pattern characteristics for certain occupational groups. It is vital to stress, that one of the assets of this study was the distinction between independent variables which may trigger PD with regard to life situations (hardships) and work environment (occupational difficulties). As the data shows, it is most probable that PPD and DPD emerge in adulthood due to traumatic events experienced within the work environment. NPD is a disorder which is influenced both by the hardships in personal circumstances as well as difficulties at work. Only AsPD has proven to be influenced mainly by earlier experiences. Cognizance of employees' psychological profiles and disorders they might be prone to, can positively influence wellbeing efforts within the workplace (like burnout prevention, elaboration of motivational systems or even enhancement of employees' life satisfaction).

For further investigation of the results it would be important to replicate the study. Respondents in this sample were attending trainings important for their development. This may mean that this was a specific group of people, for example interested in self-development or experiencing a different level of difficulties at work. It would also be interesting to compare frequency and severity of PD within occupational groups as the seniority grows. We should also mention that DSM-V and its new approach towards personality disorders create new possibilities to measure and analyse dysfunctions of personality. It would be worthwhile to adopt this new approach in further studies.

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