The burnout syndrome of forensic pathologists. The influences of personality traits, job satisfaction and environmental factors

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Abstract: Aim. To identify the burnout syndrome among forensic physicians and its relationship with personality traits, job satisfaction and environmental factors.

Material and methods. A number of 37 forensic physicians participated in the research. Three questionnaires were applied. Burnout was measured by using the Maslach Burnout Inventory (MBI). Personality traits were measured using the Big Five Inventory (BFI). The Job Satisfaction Scale (JSS) explained 4 factors related to job satisfaction: payment and promotions, management and interpersonal relationships, organization and communication and overall job satisfaction. In addition socio-demographic data and information about the presence of insomnia or depression and the use of pills were also recorded. Data analysis was done using SPSS Statistics v23.0.0 for MAC.OSX.

Results. The participants (45.95% men and 54.05% women) declared that they had faced critical events (59.46%) in the last 5 years and that the job duties which most disturbed them were related to examination of children (75.7%). The coping strategies they adopt are: listening to music (13.51%), spending time with family members (21.62%), walking (10.81%), fishing (2.70%), physical activity (5.41%), reading books (5.41%), cooking (2.70%), and watching TV (2.70%). 13.5% of the participants use pills to cope with stressful events and 1/3 are diagnosed with chronic diseases. Low score for emotional exhaustion and medium scores for the other 2 subdomains of burnout were recorded. Almost a third of the surveyed physicians requested professional help from psychologists or psychiatrists and experienced forms of emotional abuse from their patients (35.1%).

Conclusions. Our results are important because they point out the difficulties and stress related to the forensic profession, their impact on the forensic physicians’ personal life and the strategies adopted by the participants to cope with them. Our research also revealed important elements that could be included in interventions designed to prevent or reduce the incidence of the burnout syndrome in forensic medicine.

Key Words: forensic physicians, burnout syndrome, personality traits, job satisfaction environmental factors.

Researches focusing on burnout among health practitioners targeted especially the physicians. This is an important research topic, because occupational stress has an impact both on one’s professional activity and relationship with partners in the institution and on doctor-patient relationship. Burnout is the result of a combination of factors. For doctors, the main factors are the work-related stressor like number of working hours, stressful tasks, working under the pressure of time, difficult relationship with superiors or colleagues or difficult patients and the lack or reward or appreciation. The forensic physician, who is often a member of multidisciplinary evaluation team, needs to show intelligence, intuition, openness, and empathy in order to capture both the causes and the context of the diagnosis. Professional tasks are many times exhausting
and can leave traces in one's behavior, attitudes, judgment, and outlook on life or death. All of the above strain the forensic doctor to an extent, in the context of personality, social, familial and environmental factors.

The few studies identified in the scientific literature on chronic stress and the impact of critical events on the burnout syndrome in forensic doctors were published by van der Ploeg et al. [1] and Elliott et al. [2]. Other studies focused on assessing the level of stress in forensic nurses who work with victims [3-6]. Many researches focused on the burnout syndrome in other medical specialties, especially in: surgery, palliation, emergency medicine and anesthesia and a consistent literature is focusing on burnout among professionals working with victims of disasters [7-9].

There are few studies on burnout conducted in Romania, most of them focusing on medical staff working for ambulance services or intensive care units [10-13].

The literature search showed that no research has been conducted on burnout in forensic physicians in Romania, though this medical specialty is often involved in professional assessments with an important emotional impact and concerns various categories of patients (children, adults, inmates, abused, mutilated or deceased people etc). Therefore the diverse casuistry requiring the forensic doctors' professionalism is paralleled by an emotional load specific to this job. Moreover, the number of work hours per week, frequency of medical shifts, time pressure, role conflicts, pressure from the authorities and the concerned families, as well as personality traits (resistance to stress, tolerance to frustration, extraversion, neuroticism, attitudes to people or life, susceptibility etc.) contribute to a wide range of effects at a professional and personal level.

Therefore, this research is the first one of its kind in Romania. It aims to identify the burnout syndrome in forensic physicians, and its connection with personality traits, job satisfaction, socio-demographic and family factors. Our study also joins the extremely little research on the impact of the forensic physicians' job on their mental distress.

**MATERIAL AND METHODS**

**Participants**

Our sample consisted of 37 forensic physicians, who work in 11 forensic medicine facilities in Romania, which represents ¼ of the territory of the country. A number of 45 questionnaires were distributed to the forensic doctors and 40 of these were returned. The research finally took into account the replies provided by 37 subjects based on two inclusion criteria: the questionnaires and the socio-demographic data sheet were filled in completely, and returned within the stated period. The research was conducted after the approval by the Legal Medicine Institute in Iași, Romania. Before of their enrolment the participants were informed about the goal and the procedures of the study, data privacy and the dissemination of the results and signed the informed consent sheet. The questionnaires were self-administered and the participants were asked to return the filled-in sheets within 1 week.

The socio-demographic data were registered on a separate sheet. Other items were questioning about attitudes, special events or behaviors related to their profession of a forensic doctor.

**Data collection**

Burnout among forensic physicians was measured using the Maslach Burnout Inventory (MBI). The MBI is a validated 22-item questionnaire; the most frequent tool used for measuring burnout. It has 3 subscales [14] which evaluate the following domains:

- emotional exhaustion (describes the feeling of being exhausted and drained by one's work, fatigued at the very idea of work, chronic fatigue, sleeping and physical troubles),
- depersonalization (describing emotional coldness and impersonal reactions to the beneficiaries of one's work – leading to cynicism and negative attitudes with regard to patients or colleagues, feelings of guilt, avoidance of social contacts and withdrawal into oneself),
- personal achievement (describing feelings of competence and accomplishment in one's work with other people). This last dimension is the consequence of the first two, in that the demotivating effects of a difficult, repetitive situation lead to failure despite one's efforts. The person begins to doubt his/her genuine abilities to accomplish things. Therefore, a high score means a low level of personal achievement. The inventory represents evaluation at three levels: low (17 or lower), moderate (18-29) and high (over 30). For depersonalization, a score under 5 means a low level, a score of 6 - 11 is moderate and one over 12 is high. Regarding the personal achievement domain, a total of 33 points or fewer characterizes a high level of burnout, one between and including 34 - 39 defines a moderate level of burnout and a total greater than 40 shows low-level burnout. Cronbach's alpha coefficients obtained for each of the three scales were 0.695, 0.689 and 0.826, respectively.

The Big Five Inventory - BFI [15] measures innate personality traits. The questionnaire consists of 44 items corresponding to the five personality factors of the Big Five model, namely: extraversion (8 items, Cronbach's alpha coefficient 0.835), agreeableness (9 items, Cronbach's alpha coefficient 0.581), conscientiousness (9 items, Cronbach's alpha coefficient 0.825), neuroticism (8 items, Cronbach's alpha coefficient 0.857), openness to experience (10 items, Cronbach's alpha coefficient 0.828). The answers are offered by subjects on a Likert scale with 5 steps, where 1 means strong disagreement.
and 5 means strong agreement.

And finally, the third questionnaire that we used is The Job Satisfaction Scale [25] which consists of 32 items that reveal 4 factors related to job satisfaction: payment and promotions (14 items, Cronbach's alpha coefficient 0.851), management and interpersonal relationships (8 items, Cronbach's alpha coefficient 0.835), organization and communication (10 items, Cronbach's alpha coefficient 0.832) and overall job satisfaction (the total score of the scale, Cronbach's alpha coefficient 0.925).

The participants also provided the following socio-demographic data: age, level of specialization (resident, specialist or primary doctor), department, living environment (urban/rural), marital status (married, unmarried, single, divorced), data about the profession of the life partner (the same or different from the participant), information about the family of origin (number of siblings), number of children, number of years of experience as a forensic doctor, involvement in academic activity, the number of work hours per week and the number of shifts per month. Some items recorded information about insomnia, the use of pills to cope with stress, depressive periods in the past or present and known chronic diseases. A number of items focused on the type of job duties which most disturb them, such as: working with sexually or physically abused children, physically abused women, assessing inmates, decomposing bodies, etc. Additionally, the doctors were surveyed on their readiness to seek professional help when they are overwhelmed by work-related events. Data on coping strategies were also collected and the types of activities practiced to lower the level of distress were identified. Moreover, an item interrogated subjects on whether they had experienced abuse from their patients.

Data analysis was done using SPSS Statistics v23.0.0 for MAC OSX. The t-test for independent samples was used for a comparative analysis. Statistical difference was defined as p < 0.05. For the correlational study, we used Spearman correlations and for identifying the influence of independent variables on burnout we used multiple linear regressions.

RESULTS AND DISCUSSION

Descriptive analysis

Sociodemographic data

The study included 37 forensic physicians out of 241 forensic doctors who are currently are registered in Romania. Seventeen of the participants were male (45.95%) and 20 female (54.05%), from 11 forensic medicine institutions in 11 counties (Sibiu, Timișoara, Călărași, Bihor, Brașov, Buzău, Bacău, Vrancea, Iași, Vaslui, Neamț). These counties represent 11% of the territory of the country.

The mean age is 39.13 ± 11.78 (with a minimum of 25 years and a maximum of 64 years). Of the questioned subjects, 17 (45.95%) are residents, 3 (8.11%) are specialists and 17 (45.95%) are primary doctors.

Concerning their marital status, 7 participants (18.92%) declared that they were in a relationship, 21 (56.76%) were married, 4 (10.81%) were divorced and 5 (13.51%) were single. One of the items referred to the partner’s profession. As many as 17 subjects claimed that their partner had the same profession (47.22%), while 19 (52.78%) had a life partner who practiced something other than medicine as a profession.

Data related to the number of children in the family of origin were recorded. A total of 14 (37.84%) were single children, 16 (43.24%) came from families with 2 children, 5 (13.51%) came from families with 3 children. One subject came from a family with 4 (2.7%) and one, from a family with 5 children (2.7%). The data collected also focused on recording the subjects' number of children. Over half of them (N = 19, 51.35%) did not have children, 10 (27.03%) had one child and 8 (21.62%) of the surveyed forensic doctors had 2 children.

Concerning the experience as a forensic doctor, a mean of M = 10.61 ± 10.65 years of work experience was recorded, with a minimum of 1 year and a maximum of 32 years. The number of work hours per week was 33.51 ± 9.56 and the mean number of medical shifts per month was 2.94 ± 2.1.

Approximately a quarter of the subjects participating in the research are also faculty members (N = 9, 24.32%).

Psychological data

Additional items were introduced in the recorded data sheet. Doctors were asked if, throughout their career, they had requested professional support from specialists (social workers, psychologists, psychiatrists). Almost a third of the surveyed doctors declared they had requested professional help from psychologists or psychiatrists (N = 10, 29.73%) for reasons related mainly to their profession (16.22%).

A number of 22 doctors (59.46%) declared they had faced critical events in the last 5 years. Among the events which disturbed them the most were: children victims of various trauma (75.7%), child sexual abuse (70.3%), child physical abuse (75.7%), sexual abuse in women (43.2%), decomposing bodies (5.4%) and injuries or suicides among inmates (2.7%).

Our results are similar with those of other studies in the field. Forensic doctors are frequently confronted with situation with high emotional/psychological impact such as: abuse on children and women, other types of violence of variable severity, accidents, etc. These stressful events are generating psychological reaction. Even if they are not directly exposed to the violent situation, forensic doctors are working with the victims or evaluation the crime scenes. Side effects are registered even if these specialists are trained to succumb to the emotional effects on traumatizing situations. Also, Ursano et al. pointed
that handling dead bodies was found to be a stressor [16]. In stressful situations, forensic doctors resort to various strategies and activities to reduce their level of stress. The following are among the mentioned coping strategies: listening to music (13.51%), spending time with family members (21.62%), walking (10.81%), fishing (2.70%), physical activity (5.41%), reading books (5.41%), cooking (2.70%), and watching TV (2.70%).

Similar to the results of our research other studies showed that moderate scores for burnout were related to emotional exhaustion, depersonalization and reduced personal accomplishment. Coping strategies identified by Elliot et al. [2] were excessive smoking and drinking. In a recent study of Ahern et al. [17] conducted on police officers and social workers involved in the evaluation of child sexual exploitation, the most frequent coping strategy adopted was spending time with family. That study also pointed that it is imperative for the participants to prepare themselves before meeting with young victims. These results are similar to ours, because forensic doctors seem to be more impressed by child abuse comparing to other kind of professional situations. The identified strategy used to cope with stress is also pointed by our lot of subjects.

Forensic doctors were asked whom they discussed work events with, when these troubled them. A number of 13 doctors claimed they did not discuss events related to their professional activity with anyone (35.1%), while 21 (56.8%) claimed they discussed their professional activity with members of their family or colleagues.

Studies on burnout in doctors have shown that good relationships with superiors and colleagues are protective factors because they are aware about the support provided at work [18, 19].

One item of the questionnaire referred to the aggressiveness faced by forensic doctors during their interaction with the patients. Over a third of the surveyed subjects declared they had experienced forms of emotional abuse from their patients (35.1%). Some studies pointed the influence of patient on burnout syndrome among rescue or health practitioners. More, victims are stressful patients. Therefore, the studies in the field show that the psychologists, social workers and forensic doctors have high levels of exposure to aggressive events but also to aggressive patients [20, 21].

Additional data recorded the frequency of self-declared insomnia and depression. Almost 1/3 of doctors (27%) claimed they faced sleep-related issues and 16.2% declared they had suffered or still suffered from depression. A total of 13.5% of the surveyed doctors declared that they used various pills to cope with stress. In addition, a third of the forensic doctors (29.7%) suffered from various chronic diseases.

The subjects were questioned about the impact of their profession on their personal life. Most of them (73%) declared that the events faced in their professional life had changed their outlook on life.

The results presented in Table 1 are showing a low level for emotional exhaustion, a high level of depersonalization and low level for personal achievement associated with high levels of burnout.

The results showed a low level of emotional exhaustion, average for depersonalization and for personal achievement, we obtained an average level. There is no significant differences regarding the gender variable when it comes to the burnout factors. Regarding job satisfaction, we obtained a high level of satisfaction for payment and promotion and organization and communication factors, a very high level of satisfaction regarding management and interpersonal relationship factor.

**Correlational analysis**

We used the Kolmogorov-Smirnov test for all the investigated variables for the present study. For the subdomains of the MBI we obtained the following scores: emotional exhaustion K- S z = 0.168, p = 0.010; depersonalization K- S z = 0.195, p = 0.001 and personal accomplishment K- S z = 0.175, p = 0.006. The scores are not normally distributed since for all the factors p < 0.05. Regarding the socio-demographic variables we obtained the next results: age - K - S z = .160, p = .018; the number of children - K - S z = .402, p < 0.001; years of experience - K - S z = .263, p < 0.001; hours per week - k - S z = .300, hours per week - k - S z = .300,

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Domains</th>
<th>General</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MBI</strong></td>
<td>Emotional exhaustion</td>
<td>14.97 ± 13.13</td>
<td>14.88 ± 14.30</td>
<td>15.05 ± 12.43</td>
</tr>
<tr>
<td></td>
<td>Depersonalization</td>
<td>7.91 ± 6.87</td>
<td>8.82 ± 7.91</td>
<td>7.15 ± 5.95</td>
</tr>
<tr>
<td></td>
<td>Personal achievement</td>
<td>33.18 ± 10.59</td>
<td>33.05 ± 9.40</td>
<td>33.30 ± 11.75</td>
</tr>
<tr>
<td></td>
<td>Payment-promotion</td>
<td>4.08 ± 0.86</td>
<td>4.07 ± 0.80</td>
<td>4.08 ± 0.93</td>
</tr>
<tr>
<td><strong>JSS</strong></td>
<td>Management-interpersonal</td>
<td>4.56 ± 0.89</td>
<td>4.74 ± 0.86</td>
<td>4.41 ± 0.91</td>
</tr>
<tr>
<td></td>
<td>relationships</td>
<td>4.66 ± 0.76</td>
<td>4.80 ± 0.72</td>
<td>4.54 ± 0.80</td>
</tr>
<tr>
<td></td>
<td>Organization-communication</td>
<td>4.38 ± 0.75</td>
<td>4.47 ± 0.70</td>
<td>4.31 ± 0.81</td>
</tr>
<tr>
<td></td>
<td>Extraversion</td>
<td>3.98 ± 0.73</td>
<td>3.84 ± 0.78</td>
<td>3.94 ± 0.70</td>
</tr>
<tr>
<td></td>
<td>Agreeableness</td>
<td>3.97 ± 1.09</td>
<td>3.61 ± 0.60</td>
<td>4.26 ± 1.31</td>
</tr>
<tr>
<td><strong>BFI</strong></td>
<td>Conscientiousness</td>
<td>3.88 ± 0.65</td>
<td>3.78 ± 0.63</td>
<td>3.96 ± 0.67</td>
</tr>
<tr>
<td></td>
<td>Neuroticism</td>
<td>2.68 ± 0.76</td>
<td>2.60 ± 0.86</td>
<td>2.74 ± 0.69</td>
</tr>
<tr>
<td></td>
<td>Openness</td>
<td>3.77 ± 0.59</td>
<td>3.61 ± 0.62</td>
<td>3.91± 0.45</td>
</tr>
</tbody>
</table>
Results regarding correlations between MBI, BFI, JSS and variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Emotional exhaustion</th>
<th>Depersonalization</th>
<th>Personal achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraversion</td>
<td>R = -.293, p = .83</td>
<td>R = -.401*, p = .015</td>
<td>R = -.372*, p = .025</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>R = -.187, p = .276</td>
<td>R = -.588**, p = .000</td>
<td>R = -.390*, p = .019</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>R = -.387*, p = .020</td>
<td>R = -.348*, p = .038</td>
<td>R = -.554*, p = .000</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>R = .506**, p = .002</td>
<td>R = .368*, p = .027</td>
<td>R = .302, p = .073</td>
</tr>
<tr>
<td>Openness</td>
<td>R = .222, p = .192</td>
<td>R = -.193, p = .259</td>
<td>R = .277, p = .101</td>
</tr>
<tr>
<td>Payment – promotion</td>
<td>R = -.430**, p = .008</td>
<td>R = -.249, p = .137</td>
<td>R = .052, p = .759</td>
</tr>
<tr>
<td>JSS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management - interpersonal relations</td>
<td>R = -.524**, p = .001</td>
<td>R = -.471*, p = .003</td>
<td>R = .303, p = .069</td>
</tr>
<tr>
<td>Organization – communication</td>
<td>R = -.474*, p = .003</td>
<td>R = -.485**, p = .002</td>
<td>R = .402*, p = .010</td>
</tr>
<tr>
<td>Overall satisfaction</td>
<td>R = -.495*, p = .002</td>
<td>R = -.395*, p = .016</td>
<td>R = .176, p = .296</td>
</tr>
<tr>
<td>Age</td>
<td>R = -.130, p = .443</td>
<td>R = -.016, p = .926</td>
<td>R = .324, p = .050</td>
</tr>
<tr>
<td>Number of children</td>
<td>R = -.055, p = .746</td>
<td>R = -.052, p = .758</td>
<td>R = .283, p = .090</td>
</tr>
<tr>
<td>Experience in years</td>
<td>R = -.045, p = .796</td>
<td>R = -.225, p = .187</td>
<td>R = -.293, p = .082</td>
</tr>
<tr>
<td>Work hours/week</td>
<td>R = -.317, p = .064</td>
<td>R = -.105, p = .547</td>
<td>R = .168, p = .336</td>
</tr>
<tr>
<td>Shifts/month</td>
<td>R = -.032, p = .858</td>
<td>R = -.074, p = .684</td>
<td>R = .274, p = .123</td>
</tr>
<tr>
<td>Children in family of origin</td>
<td>R = -.186, p = .270</td>
<td>R = -.436**, p = .007</td>
<td>R = .048, p = .776</td>
</tr>
</tbody>
</table>

Variables: Emotional exhaustion: R = -.293, p = .83; Depersonalization: R = -.401*, p = .015; Personal achievement: R = -.372*, p = .025.

p < .001; shifts per months: K-S z = .222, p < .001. The burnout factors are not normally distributed. For the correlational analysis we applied Spearman correlations, a non-parametric test. The results between domains of burnout and variables are presented in Table 2.

For the Big-Five personality factors we have the following results: extraversion: R = -.293, p = .83; agreeableness: R = -.187, p = .276; conscientiousness: R = -.387*, p = .020; neuroticism: R = .506**, p = .002; openness: R = .222, p = .192.

From the analysis of the statistical results, a positive correlation is highlighted between age and score in personal achievement meaning that the older the person and the more experienced is, the higher the personal achievement value is. The number of children in the family of origin negatively correlates with depersonalization.

Emotional exhaustion correlates positively with neuroticism and negatively with conscientiousness, and all factors of job satisfaction, including the overall scores. Depersonalization is correlating with almost all BFI and JSS factors (excepting openness and payment and promotion). The correlation is a positive ne only with neuroticism factor.

Personal achievement is also in strong correlation with extraversion, agreeableness and conscientiousness, with organization-communication factor from JSS and age.

**Comparative analysis**

To identify statistically significant differences, we used the t-test for independent samples. After statistical processing, no statistically significant differences were found between subjects according to their gender.

Regarding teaching activity variable, there are significant differences in emotional exhaustion. Subjects with no teaching activity (M = 12.53) showed lower levels of emotional exhaustion comparing to university teachers (M = 22.55) with t (35) = 2.08, p = .045. Significant differences were also obtained regarding personal achievement with t (35) = 4.77, p = .000, in that those with teaching activity show higher values (M = 41.88) than those without it (M = 30.39).

Differences were identified between forensic doctors who resorted, during their careers, to the help of a specialist when a situation exceeded their adaptability to stressful circumstances or of a colleague. These differences were identified only related to personal accomplishment score. Those who sought professional help registered a higher level of personal accomplishment factor and we obtained t (34) = 4.45, p = .000, for those who were looking for help after a critical event (M = 41.50) than those who did not ask for support from a specialist (psychologist or psychiatrist) (M = 33.11). Regarding the support from the colleagues (t (35) = 2.51, p = .017), those who were looking for their colleagues support (M = 36.76) compared to those who did not wanted to have their colleagues support (M = 28.50). Personal achievement refers to cynicism and negative attitudes with regard to patients or colleagues, feelings of guilt, avoidance of social contacts and withdrawal into oneself. These results show that high levels of personal achievement are correlated with the availability of a person to ask for a colleague support professional help.

Concerning the experience of critical events in recent years, we found statistically significant differences (t(35) = 2.96, p = .006) between subjects who experienced critical events (M = 19.31) and those who did not (M = 8.60) with respect to emotional exhaustion. No significant difference was identified regarding depersonalization and personal accomplishment between forensic doctors who claimed to have experienced outstanding events during their career and those who did not identify such major-impact events in their professional experience. These results showed that depersonalization and personal accomplishment are not influenced by critical events.

Subjects were compared regarding the presence of insomnia and a statistically significant difference
was found between emotional exhaustion values (t (35) = 2.74; p = .019), in that those who declared they had trouble sleeping had a higher level of emotional exhaustion (M = 26.00) than subjects who declared they did not have insomnia-related problems (M = 10.88). Moreover, subjects who declared they had states of depression showed statistically significantly higher values in emotional exhaustion (t (35) = 4.93; p = .000, Mdepression = 33.83, Mwithout depression = 11.32) compared to subjects who did not declare they suffered from depression.

Significant differences were also emphasized for variable “using medical treatments against stress”. Subjects under treatment (M = 30.40) showed significantly higher values (t (35) = 3.15, p = .003) of emotional exhaustion, compared to subjects who were not under treatment (M = 12.56).

The study identified statistically significant differences neither between subjects who suffered from chronic diseases and those without chronic diseases, nor following the comparative analysis. According to the variable which followed the change in outlook on life and the world as a consequence of one’s profession, we obtained t (35) = 3.41, p = .002, with M = 17.85 for those who believe that their profession has changed their vision of life comparing to those who don’t believe this fact having a M = 7.20.

Regression analysis

The correlational study emphasized the influence of some variables on others (for example, the statistically significant connection between socio-demographic or personality factors and burnout). To identify the most effective model for estimating the burnout criterion, multiple linear regression was used by the hierarchical method and the following prediction models were defined for burnout, depersonalization and personal achievement.

For the emotional exhaustion, none of the predictive models proved to be significant.

Of the 8 models in which the depersonalization criterion was tested, only the first one was found to be significant. This consists of the extraversion predictor and it explains 12% of the variance of the depersonalization, the effect of the predictor being positive (b = - 3.474, beta = - 0.380). The result proves that the level of extraversion influences negatively depersonalization. The more present this personality trait in a person’s structure, the lower the depersonalization scores will be. Depersonalization refers to emotional coldness and impersonal reactions to the beneficiaries of one’s work – negative attitudes with regard to patients or colleagues, feelings of guilt, avoidance of social contacts and withdrawal into oneself. Extraverts show positive emotions, higher frequency and intensity of personal interactions, and a higher need for stimulation. In addition, extraversion is, in general,
associated with a tendency to be optimistic [22]. Our results are confirming some other researches made by Francis et al. [23] and Zellars et al. [24] who also found a negative association between extraversion and depersonalization.

With regard to the personal achievement criterion, model 8 explains 36.4% of its variance. Among the 8 predictors of the mode, only conscientiousness and organization-communication predictors have a significant influence on personal achievement (p = .029, respectively p = .007) its effect on the criterion being positive (b = 6.274, beta = .389, respectively b = 9.722, beta = .715). The results prove that, the more organization – communication and conscientiousness person shows, the higher the personal achievement scores will be. Forensic physicians with a high level of conscientiousness and those who are having organization and communication skills will be more satisfied with personal accomplishments.

The research has some limitations. The number of subjects is small, but this fact is caused by the small number of forensic doctors in general. In Romania, 241 specialist and primary forensic doctors are registered, which means that the lot represents, in fact, approximately 10% of the forensic doctors in all forensic medicine institutions in the country. This small number represents a limitation especially from a statistical viewpoint, a statistical analysis of the collected data being more difficult to perform.

CONCLUSION

Our study show that the forensic doctors are mostly disturbed emotionally by the examination of children who are victims of sexual or physical abuse, sexually abused women, decomposing bodies and injuries and suicide among inmates. Overall the events encountered by the forensic physicians in their daily activity had changed their overlook on life.

The forensic physicians are prone to sleeping troubles and depression as it was showed by almost 1/3 of our participants. More than 10% of our participants have used pills to cope with the stress caused by their profession. The level of emotional exhaustion was higher in the subjects who have experienced insomnia and depression related to their profession and for those who used to take pills in order to better cope with stressful events.

The level of emotional exhaustion is higher in the forensic physicians who have also a teaching activity, possible due to the additional stress caused by the responsibilities raised by this activity. On the other hand, high level of personal accomplishment were identified in university staff members.

More than half of the participants have discussed about their professional activity with the members of their families and their colleagues. The discussions with their colleagues and healthcare professionals (psychologist, psychiatrist or social worker) was identified as a protective factor for the burnout syndrome, especially for personal achievement domain.

The impact of the personality traits on their activity and the protective effect of the discussions with colleagues suggest the importance of the debriefing sessions related to the forensic medicine activity for the prevention or reduction of the burnout.

The results of our research are important for adjusting physicians’ activity and working environment. The levels of personal accomplishment are proved to be influenced by job satisfaction factors and personality traits, especially organization – communication and conscientiousness. Depersonalization is proved to be influenced by extraversion level.

Overall, the results of our research are important because they point out the difficulties and stress factors in forensic profession, their impact on the forensic physicians’ personal life and the strategies adopted by the participants to cope with them. Our research also revealed important elements that could be integrated in interventions designed to prevent or reduce the incidence of the burnout syndrome in forensic medicine.

Conflict of interest. The authors declare that they have no conflict of interest concerning this article.

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