

RELATIONSHIP BETWEEN EMPATHY AND BURNOUT AMONG PSYCHIATRIC RESIDENTS

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Summary

Aim. To study the causal factors of empathy and burnout and the effect of emotional involvement on medical doctors.

Material and methods. Descriptive study at 4 Hungarian medical faculties with 67 psychiatry residents. Instruments: Maslach Burnout Inventory (Maslach and Jackson, 1986), Interpersonal Reactivity Index (Davis, 1980), Patient-Practitioner Orientation Scale (Krupat, E. et al. 2000), and Secondary Traumatic Stress Scale (Bride 2003). Statistics: Spearman correlation, Kruskal-Wallis test, Mann-Whitney U test, factor analysis with Varimax rotation.

Results. High emotional exhaustion among 32.8% of residents, high level of depersonalization of 29.9%, decrease of personal effectiveness of 52.2%. Significantly higher depersonalization for men ($p \leq 0.05$). Significantly more subjective experience of symptoms of arousal for women than men ($p = 0.028$). Empathic distress (Interpersonal Reactivity Index) is accompanied by emotional exhaustion ($p < 0.001$), reduced personal accomplishment ($p < 0.001$), and each symptom of secondary trauma ($p < 0.001$). Emotional exhaustion correlates with all three symptoms of secondary trauma ($p < 0.001$).

Factor analysis of the questionnaires revealed two main factors: the first factor we named “reactive empathy” or “mentalization”. The second factor included components related to emotional contagion and its consequence, burnout.

Conclusions. Experience of emotional contagion may predict the manifestation of burnout. Regulation of the intensity of emotional states, perspective change and empathic concern determine that form of empathy which has a positive effect on both the patient and the therapist.

Key words: empathy, burnout, emotional contagion, distress

INTRODUCTION

Numerous experiments confirm the importance of the relationship between the patient and the practitioner regarding the course of the illness and the healing process (1, 2). In many cases, however, the interpersonal relationship with the patients or their relatives may be straining for the practitioners due to the intense emotional load they carry. It has been suggested in many recent studies that excessive emotional involvement might lead to burnout (3, 4).

According to the definition of Maslach (5), a burnout process can be measured and described in three dimensions, which are: emotional exhaustion, depersonalization, and reduced personal accomplishment accompanied by negative self-evaluation.

Figley (6) underlines that although empathy enables the helpers to understand the traumatized state of the patient, it also makes them more susceptible to possible trauma. He denoted this emotional and behavioral disorder caused by exposure to another person's traumatic experience as secondary traumatic stress disorder (also

known as compassion fatigue). Chrestman (7) pointed out the similarity between the symptoms of primary and secondary traumatic stress: intrusions, physiological arousal and avoidance. The observer enters the same emotional state as that of the patient.

In the case of psychiatrists, their relationship with patients is different since it is considered more long-term and requires a higher level of emotional involvement. This puts them in a special position among doctors. Psychiatrists establish the most complex form of relationship with their patients; moreover, they often get to know traumatizing stories. When starting out on their careers, these difficulties add up to even more serious risks as they lack the necessary skills to tackle these experiences, have to deal with a great deal of responsibility, and the perceived control over their work is low. According to the review of the literature by McCray et al. (8), international studies show that 40-75% of the resident doctors have to face burnout. Compared to those of other specialists, mortality and morbidity rates are significantly worse (9).

In our study, we were interested to investigate the degree of burnout of psychiatry residents and medical specialist candidates, and examine the relationship between emotional involvement, communicational skills and symptoms of burnout.

PARTICIPANTS

In our exploratory/descriptive, cross-sectional study we used questionnaires and qualitative analysis. It was carried out between March and May 2011 in four medical universities in Hungary (in Budapest, Debrecen, Pécs and Szeged) within the framework of a regular psychiatry residency training program. Each day of the training program we were able to conduct the research before the training started. Participants were informed in writing about the aim, process and duration of the research, in which participation was voluntary. Also, they were not paid for doing so. Our sample consisted of 67 psychiatry residents and medical specialist candidates (51 women and 16 men) with a mean age of 31.45 years (SD = 5.8). The following socio-demographic characteristics were taken into account: age, marital status, number of children, number of medical specialty exams, and work experience in health care. The data were analyzed using the statistical software tool SPSS.

METHOD

Burnout was measured with the *Maslach Burnout Inventory (MBI)* (10). The assessment of the results was based on a scale developed on a normative sample by Adám et al. (11).

Secondary traumatic stress was measured with the *Secondary Traumatic Stress Scale (STSS)* (12), which consists of subscales estimating intrusion, arousal and avoidance.

Empathy was measured by the *Interpersonal Reactivity Index (IRI)* (13), which includes 28 affirmations in four subscales (perspective taking, fantasy scale, empathic concern and personal distress).

With the *Patient-Practitioner Orientation Scale (PPOS)* (14) we examined which part of the communication is emphasized by the practitioner when interacting with patients, as well as to what extent they take into account their points of view and personality. It was the first time that the questionnaire was used in Hungary.

The questionnaire includes 18 affirmations in two subscales. The subscale of sharing reflects to what extent the respondent believes that a) in order to ensure an effective healing process, the practitioner and the patient must be treated equally in terms of power and control, and b) doctors should share as much information with their patients as possible. The subscale of caring reflects to what extent the respondent believes that during the healing process the emotions and the whole personality of the patient should be taken into consideration, and that a satisfying interpersonal relationship is of paramount importance.

RESULTS

Socio-demographic characteristics of the sample

The socio-demographic characteristics of the participating psychiatry residents and medical specialist

candidates are shown in Tables 1 and 2. 23% of the participants were male and 77% female. According to age distribution, the sample consists of mostly young adults in their 30s. On average, participants have five years of work experience in health care, and most of them have not yet taken their medical specialty exam. 66% of them live in marriage or partnership, and the majority have one child.

Table 1. Socio-demographic characteristics 1.

	Minimum	Maximum	Mean	SD
Age (years)	25	54	31.45	5.789
Number of children	0	3	0.38	0.818
Number of exams	1	3	1.12	0.445
Experience (years)	0.5	30	4.659	5.466

Table 2. Socio-demographic characteristics 2.

	Value	Number of participants
Sex	men/women	16/51
Marital status	single/domestic partnership/married	25/21/20

Prevalence of burnout

The prevalence of major emotional exhaustion, depersonalization and decrease in performance among psychiatry residents and medical specialist candidates was 32.8%, 29.9% and 52.2%, respectively.

As regards the relationship between the aspects of burnout and socio-demographic characteristics, there is a significant sex-related difference in depersonalization (Mann-Whitney U test: $z = -2.344$; $p < 0.05$), which means that this phenomenon is more frequent in men. Figure 1 shows that, despite the different sample size, the prevalence of low, medium and high degree of depersonalization differs in the two sexes.

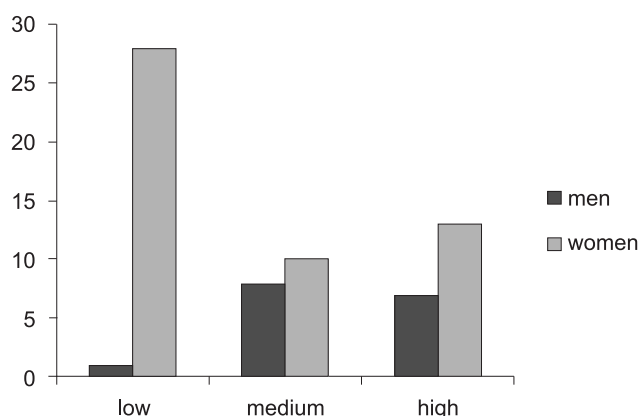


Fig. 1. Sex-related difference in depersonalization.

There is a significant difference in the arousal subscale of secondary trauma, meaning that women are more subject to experience symptoms of arousal than men. (Mann-Whitney U test: $z = -2.197$; $p < 0.05$).

There is a relation between marital status and depersonalization. Those living in a marriage or domestic partnership are significantly less likely to develop a depersonalizing attitude (Kruskal-Wallis test: $\chi^2 = 8.962$; $p < 0.05$).

Results of the questionnaires and analysis of relationship between socio-demographic characteristics

The fact that those living in a marriage or domestic partnership are significantly less likely to develop a depersonalizing attitude points out the importance of family or a partner. The findings are similar when examining the relationship between empathy and family: table 3 shows that marriage or domestic partnership is related to the ability to decentralize (perspective taking subscale of the IRI) (Kruskal-Wallis test: $\chi^2 = 13.085$; $p < 0.05$).

Table 3. Effects of marital status on the perspective taking subscale of the IRI.

	Marital status	N	Mean rank	X	Sig.
Perspective taking (IRI)	single	25	25.44	13.085	0.001
	domestic partnership	21	45.52		
	married	20	30.95		

The total score of secondary trauma and the amount of distress experienced (IRI), which measures the increase in negative emotions, are related ($r = 0.446$; $p < 0.001$). The former is also related to all three components of burnout (MBI emotional [exhaustion] 0.592, $p < 0.001$; MBI depersonalization 0.321, $p < 0.01$; MBI [reduced personal] accomplishment 0.348, $p < 0.01$).

Tables 4 and 5 show a more detailed description of the aforementioned relations. The relationship between burnout, secondary trauma and empathy (MBI – STSS – IRI) are examined by Spearman correlation.

Table 4. Correlation between PPOS and IRI.

	IRI persp.	IRI fantasy	IRI empathy	IRI distress
MBI emotional	0.03	0.018	0.124	0.361**
MBI depersonalization	-0.323**	-0.199	-0.382**	0.021
MBI accomplishment	-0.340**	-0.149	-0.138	0.415**
STSS intrusion	0.161	0.403**	0.369**	0.535**
STSS avoidance	0.051	-0.091	-0.071	0.269*
STSS arousal	0.131	0.116	0.033	0.255*

* $p < 0.05$; ** $p < 0.001$

Table 5 shows clearly that empathic distress is accompanied by emotional exhaustion, reduced personal accomplishment and each symptom of secondary trauma.

Table 5. Correlation between MBI and IRI.

	STSS intrusion	STSS avoidance	STSS arousal
MBI emotional	0.392**	0.582**	0.483**
MBI depersonalization	0.127	0.427**	0.271*
MBI accomplishment	0.215	0.341**	0.256*

* $p < 0.05$; ** $p < 0.001$

The ability of perspective taking is negatively correlated with reduced personal accomplishment and depersonalization, meaning that a lack of decentralization influences the accomplishment experienced.

Although secondary trauma and burnout are closely related, it seems that the two questionnaires do not measure the same phenomenon. Avoidance strongly correlates with all three subscales of burnout.

Emotional exhaustion correlates with all three symptoms of secondary trauma.

The arousal subscale of secondary trauma correlates significantly with all three subscales of burnout. It looks as if the practitioner exhibited the same elevated degree of arousal that the patient does, which is accompanied by every symptom of burnout.

In order to explore the relationship between the questionnaires of this study, factor analysis was used (factor analysis with Varimax rotation, Table 6). The correlation between the questionnaires shows two tendencies: Firstly, one factor was given the name reactive empathy or mentalization, as it includes the characteristics necessary for these: perspective taking, empathic attention, appreciation of the relationship and communicational skills (sharing and caring subscales of the PPOS; and perspective taking, fantasy and empathic concern subscales of the IRI).

Secondly, the other factor consists of elements related to emotional contagion and its consequences, exhaustion and burnout (distress subscale of the IRI; intrusion, avoidance and arousal subscales of the STSS; and all three subscales of the MBI).

Table 6. Factor analysis

	Mentalization	Contagion
PPOS sharing	0.558	-0.021
PPOS caring	0.673	-0.092
IRI perspective change	0.857	0.068
IRI empathic concern	0.650	0.077
IRI fantasy	0.814	0.124
IRI personal distress	0.407	0.666
STSS intrusion	0.472	0.650
STSS avoidance	-0.075	0.764
STSS arousal	0.082	0.743
MBI emotional exhaustion	-0.028	0.832
MBI depersonalization	-0.578	0.549
MBI personal accomplishment	-0.408	0.648

DISCUSSION

Comparing our results with those of Ádám et al. (11), based on a sample of Hungarian doctors, it is clear that the prevalence of burnout is generally higher in psychiatry residents than in medical specialist candidates. The data of the two studies is as follows: their study showed that emotional exhaustion was present among 21.2% of the participants (our rate is 32.8%), 7.7% were highly depersonalized (our rate is 29.9%) and 33.1% experienced reduced personal accomplishment (our rate is 52.2%). In other words, reduced personal accomplishment is the most prevalent phenomenon among these, followed by emotional exhaustion and depersonalization.

In our sample, men had a significantly higher rate of depersonalization than women. Thus it seems that men are more likely to defend themselves this way against excessive emotional load. Györfy et al. (15) found that women working as psychiatrists have poorer somatic and psychic condition than women working in other areas of health care. This leads us to pose the question whether it could be attributed to the fact that women might have to deal with more emotional load they have not gotten over, whereas men's reaction to this situation might be to treat their patients in a less personal manner (meaning that they will have to face the feeling of reduced personal accomplishment, according to our study). Our results bear out this theory since female participants experience symptoms of excitement (arousal subscale of the STSS) more frequently when working with patients who require more attention.

There is a connection between marital status and ability to decentralize (subscale of perspective taking of the IRI), and those having a partner are less subject to depersonalization. This result of ours is in tune with a study of Jovanovic et al. (16), who found that the prevalence of depersonalization is higher among those Croatian and French psychiatry residents who are single. The fact that the more children they have, the more empathic concern they exhibit can be explained by taking into account that the existence of more intimate relationships in their private lives positively affects their ability to consider points of view different from their own, which increases their degree of empathic concern (attention).

There are many similarities between our study and that of Day and Chambers (17) regarding the relationship between burnout and empathy. They found that personal distress correlates positively with all three symptoms of burnout. Empathic concern and perspective taking correlated negatively with the subscales of depersonalization and reduced personal accomplishment of the burnout scale. Thus it seems that empathic concern and personal distress are two separate affective responses that differ in the object of attention. While empathic distress is aimed at one's own negative feelings, in the case of empathic concern the focus is on one's partner, which emphasizes the importance of perspective taking in this process.

Since our analysis is based on correlations, linear consequences cannot be drawn from them. Hypotheti-

cal assumptions, however, can be made. One assumption would be that working with highly distressed patients generates synchronous phenomena in the practitioner as well, leading to feelings of distress. The existence of this acute source of stress might be attributed to empathic processes. When the aforementioned state becomes long-term, it may lead to emotional exhaustion and a reduction in personal performance. According to our theory, it is at this point that these phenomena begin to form a vicious circle with the emotional exhaustion intensifying the avoidance. This is very similar to the model of chronic stress, in which, due to a lack of adaptive coping mechanisms, stress ultimately leads to exhaustion.

Contrary to this, there may be an alternative way to tackle distress, during which distress in the practitioner is processed cognitively as well, leading to a change of perspective and thus enabling attention to be centered on the patient. This process may be the basis of the appearance of emotional concern, which is accompanied by a feeling of higher personal accomplishment and reduces the chance of depersonalization. Coping with the rising number of negative emotions may be facilitated by emotional regulation, which makes perspective taking possible and expedites the appearance of empathic concern.

Our results show that empathy should be considered as a multidimensional and subtle skill in which both the cognitive and the behavioral component may prevent burnout. It is important to note that a possible defect in emotional regulation might play an important role in the development of burnout. It is imperative that professionals be prepared for coping with the special emotional load they have to face when interacting with patients. It would be useful to carry out studies regarding the causal relationship between the effects of increasing emotions, secondary trauma and burnout, as well as to clarify whether distress is caused by the nature of the traumatic event in question or certain psychological mechanisms of the patient. □

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