

Patient aggression towards health care professionals

Mroczek B.^{1*}, Jolanta Mormul², Kotwas A.³, Szkup M.⁴, Kurpas D.^{5,6}

¹ Department of Humanities in Medicine, Faculty of Health Sciences, Pomeranian Medical University, Szczecin, Poland

² Regional Hospital for Mental Diseases, Branice, Poland

³ Public Health Department, Faculty of Health Sciences, Pomeranian Medical University, Szczecin, Poland

⁴ Department of Nursing, Faculty of Health Sciences, Pomeranian Medical University, Szczecin, Poland

⁵ Department of Family Medicine, Wrocław Medical University, Wrocław, Poland

⁶ Public Higher Medical Professional School, Opole, Poland

ABSTRACT

Purpose: To estimate the frequency of aggressive behaviors in health care institutions, and determine their influence on emotional reactions of medical workers.

Materials and methods: The study involved 201 health care professionals from the regions of Lower Silesia and Opole in Poland. The authors employed the exposure to patient aggression inventory, based on the questionnaires of Merez and Nowicka & Kolasa; this inventory divides patient aggression towards medical workers into seven different forms.

Results: In over 90% of cases, health care professionals fell victim to patient aggression in a workplace. It mostly took forms of verbal aggression, a raised voice and shouting. A physical attack was reported by 45.6% of the surveyed; it resulted in physical injuries in 27.9% of psychiatric hospital workers and 24.7% of general hospital workers. As a reaction to patients' verbal

aggression, medical workers usually calmly explained that such behavior was improper. Violence and aggressive behaviors of patients evoked workers' anger, fear, a feeling of resignation and the loss of their sense of safety. In most cases victims of patient aggression either coped with the problem themselves or asked their co-workers and superiors for help.

Conclusions: Aggressive behaviors of patients arouse in medical staff, mostly anger. Medical workers usually cope with patient aggression themselves; nurses more often than other health care professionals ask their superiors and co-workers for help. It is necessary to conduct further research into the problem of patient aggression towards medical staff so that actions ensuring safety for workers can be taken.

Key words: health care professionals, workplace aggression, psychiatric hospital

*Corresponding author:

Bożena Mroczek

Department of Humanities in Medicine-Faculty of Health Sciences

Pomeranian Medical University, 48 Żołnierska Street

71-240 Szczecin, Poland

e-mail: b_mroczek@data.pl

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INTRODUCTION

Aggression is at present a common social phenomenon. Not only does it take forms of verbal abuse, open hostility, rejection, and physical injuries, but also deliberate and purposeful violence [1,2]. In terms of intent, aggression is similar to interpersonal violence and recognized as an intentional, either open or symbolic, action which aims at causing harm, pain or damage [3]. Beech [4] emphasizes a role of intention and frustration in the behavior of aggressive people, proposing a distinction between instrumental and hostile aggression [4]. Instrumental aggression is associated with achievement of certain goals, and results from the frustration of an aggressor. Hostile aggression, on the other hand, is related to the experience of negative emotions and the willingness to harm another [4]. Each side of the patient – medical worker relationship can be an offender. As early as in the second half of the 20th century aggression in health care institutions was an alarming fact, especially in Europe, Australia and North America. Therefore, it was recognized as a serious public health problem [5,6]. The real scale of this phenomenon remains unknown. In fact it can be assumed that understanding of these issues is still insufficient [7,8]. As reported by Merez [6] and Di Martino [8] over 50% of health care professionals fell victim to workplace aggression, about 70-80% of who were paramedics, nurses and physicians. Most acts of aggression in health care settings are triggered by a combination of numerous factors associated with professional environment, including interaction between patients and medical workers [9-12]. It is difficult to understand the genesis of health care aggression for three reasons: firstly, health care professionals work within numerous health care organizational structures and perform many different duties [13]; secondly, they are exposed to aggression from many sources – patients, members of their families, and co-workers [14] and finally, aggression seems to be associated with doctors' attitudes towards nurses and patients [15,16]. Patients' aggressive behaviors can be manifestation of somatic and mental disorders, may result from fear, frustration, the feeling of threat, or be a reaction to conflict situations with other people [9,17]. As stated by the Home Office Health and Safety, nurses are at a four times higher risk of workplace aggression than other health care professionals [18]. Definitions of workplace aggression differ in emphasis given to its various forms—while some of them mention a physical attack as a main problem, others put the accent on intimidation and verbal abuse [19] as well as unlawful menace (threatening to kill a person at work or on duty) [20]. Workplace aggression may also take a form of gestures made to offend, bully, humiliate or blackmail a person [21].

In special cases of patients' aggressive behaviors towards medical staff, regulations on the protection of a public functionary can be applied [22]. Medical Staff can also count on help from the police. To enable the reporting and recoding of the cases of workplace aggression, the Main Medical Association and the Main Association of Nurses and Midwives have created the Internet system for “The monitoring of aggression in health care institutions” [23]. In Poland it is recommended that health care institutions implement worker protection procedures to be applied in case of patient aggression, however not all health care institutions complied with this suggestion [24]. The purpose of this study was to estimate the frequency of aggressive behaviors demonstrated by patients towards health care professionals in health care institutions, and determine their influence on emotional reactions of health care workers.

MATERIAL AND METHODS

The study was carried out in 2012 among 201 health care professionals employed in health care institutions in the regions of Lower Silesia and Opole, Poland. Participants in the study included workers of: psychiatric hospitals (68), general hospitals (73), and primary care practices (60). The inventory was given to nurses (116), physicians (25), paramedics (21), security workers (18), and other employees of health care institutions (21), such as: psychologists (6), teachers (1) receptionists (7), occupational therapy instructors (3), physiotherapists (3), and medical caregivers (1). The majority of respondents were women (78.6.0%, 158). Details are shown in Table 1.

Table 1 Socio-demographic data .

Variables		n	%
Gender	Women	158	78.6
	Men	43	21.4
Age	20-30 years	28	13.9
	31-40 years	64	31.8
	41-50 years	69	34.3
	51- 60 years	35	17.4
	above 60 years	5	2.4
Education	Vocational	11	5.4
	Secondary	98	48.8
	Higher	92	45.7
Seniority	up to 3 years	26	12.9
	4-10 years	25	12.4
	11-20 years	63	31.4
	above 20 years	87	43.3
Workplace	Psychiatric hospital	68	33.8
	General hospital	73	36.1
	Primary care practice	60	29.8
Actual profession	Physician	25	12.4
	Nurse	116	57.7
	Paramedic	21	10.5
	Security worker	18	8.9
	Other	21	10.5

The criteria for inclusion in the study were: voluntary consent to take part in the study and current employment in a health care institution. The study described in the article was approved by the Bioethical Commission of the Medical University of Wrocław (no. KB – 529/2012).

Methods

The research was conducted in primary care practices (outpatient care level), as well as general and psychiatric hospitals (inpatient care level). The authors employed the exposure to patient aggression inventory, which included both original questions and those based on the study of Merez [6] and Nowicka & Kolasa [21].

In this inventory, patient aggression towards medical staff has been divided into seven different forms, namely: raised voice and shouting, threats, blackmail, crude behavior, extortion, an assault, and a battery [7], where an assault is understood as an attempt or threat to injure another person, while a battery is actually contacting another person in a harmful or offensive manner.

The respondents said how often they experienced each of these forms of patient aggression, either as a witness or a victim, during the previous 12 months. The frequency of such incidents was weighed on a six-point scale as follows: 1 – once a year, 2 – several times a year, 3 – almost every month, 4 – several times a month, 5 – once a week, 6 – every day.

The respondents said what forms of patients’ aggression they encountered at work. They were asked how aggressive behaviors influenced their feeling of safety in a workplace. The scale allows us to estimate the general frequency of workplace aggression incidents. The questionnaire

includes queries about socio-demographic data, seniority and place of work, emotional reactions to patients’ aggression, searching for help, and familiarity with worker protection procedures that should be applied in case of patient aggression.

A statistical analysis was performed using the SPSS software version 16. The relationship between workplace, actual profession and the frequency of particular forms of aggression was assessed with a chi-square test (Chi²). The strength and direction of the relationship between the variables were verified using Spearman's rho correlation test. The accepted significance level was p<0.05.

RESULTS

All respondents (N=201) were exposed to patient aggression while doing their job. During the 12 months preceding the study, 96.0% (193) of the surveyed were witnesses to patients’ aggressive behaviors towards other workers, and 91.0% (183) fell victim to patient aggression. Witnesses to patients’ aggressive behaviors were mostly workers of: general hospitals (98.6%, 72), psychiatric hospitals (98.5%, 67), and primary care practices (90%, 54). During the 12 months prior to the study, one third of respondents (33.3%, 67) fell victim to patient aggression everyday, a similar proportion (31.3%, 63) – once a week, and less than every fifth respondent (18.90%, 38) – several times a month. Respondents with vocational education (72.7%, 8) were exposed to everyday aggression more often than those with secondary and higher education (Chi² = 26.01, p = 0.04). (Table 2).

Table 2 The frequency of patients’ aggressive behaviors towards medical staff vs. workplace and the level education.

Variables		every day	once a week	several times a month	almost every month	several times a year	once a year	Total n,%	Chi ² , p
Education									
Vocational	n	8	2	0	1	0	0	11	26.01 0.04
	%	72.7	18.2	0.0	9.1	0.0	0.0	5.5	
Secondary	n	38	27	19	2	5	7	98	
	%	38.8	27.5	19.4	2.04	5.1	7.1	48.8	
Higher	n	21	34	19	7	6	5	92	
	%	22.8	37.0	20.6	7.6	6.5	5.4	45.8	
Workplace									
Psychiatric hospital	n	39	20	5	3	0	1	68	44.40 <0.001
	%	57.4	29.4	7.4	4.4	0.0	1.4	33.8	
General hospital	n	17	28	14	4	7	3	73	
	%	23.3	38.4	19.2	5.5	9.6	4.3	36.3	
Primary care practices	n	11	15	19	3	4	8	60	
	%	18.3	25.0	31.7	5.0	6.7	13.3	29.8	
Total	n	67	63	38	10	11	12	201	
	%	33.3	31.3	18.9	5.0	5.5	6.0	100.0	

Victims of patient aggression were most often found among workers of psychiatric hospitals (94.1%, 64), then general hospitals (90%, 66) and primary care practices (88.3%, 53). Patients usually spoke to medical workers in a raised voice, described as shouting (87.6%, 176), or behaved in a vulgar way (79.6%, 160). Some 60.2% (121) of respondents fell victim to threats, 49.3% (99) – extortion, and 32.8% (66) – blackmail. An assault was reported by 55.2% (111) and a battery – by 41.3% (83) of respondents, out of whom 19.0% (38) sustained an injury. There were statistically significant differences in witnessing patients' aggression towards other workers between medical staff of different health care institutions. Workers of psychiatric hospitals witnessed patients' aggressive behaviors significantly more often than those employed in general hospitals and primary care practices ($\text{Chi}^2 = 44.40, p > 0.001$).

Nurses (92.1%, 105) and physicians (88.0%, 22) fell victim more often than representatives of other professions (61.1%, 11), and young people aged 31-40 years (93.8%, 60) – more often than those over 60 years of age (60.0%, 3) (Table 3).

Medical staff experienced verbal aggression during contacts with patients in all types of health care institutions (81.1%, 163), including 85.3% (58) of incidents in psychiatric hospitals, 79.5% (58) in general hospitals, and 78.3% (47) in primary care. Patients' crude behaviors were reported by 66.2% (133) of medical workers, including: 76.5% (52) – in psychiatric hospitals, 70.0% (51) – in general hospitals, and 50.0% (30) in primary care. Extortion was mentioned by 45.3% (91) of the surveyed, out of whom 50.0% (30) were employed in primary care practices, 48.5% (33) in psychiatric hospitals, and 38.4% (28) in general hospitals. Some 26.9% (54) of respondents were blackmailed. This form of aggression was mentioned by 33.3% (20) of primary care workers, 31.0% (21) of psychiatric hospital workers, and 17.8% (13) of general hospital employees. Threats and attempts at intimidation were reported by 60.3% (41) of medical staff in psychiatric hospitals, 50.0% (30) of primary care workers, and 48.0% (35) of respondents employed in general hospitals.

Table 3. Victims of workplace violence in relation to their age and actual profession (n=201).

Variables					
Profession	Nurse	Physician	Paramedic	Security worker	Other
n (%)	105/116 (92.1%)	22/25 (88.0%)	18/21 (90.0%)	11/18 (61.1%)	17/21 (70.8%)
$\text{Chi}^2 = 17.80, p < 0.001$					
Age	20 – 30	31 – 40	41 – 50	51 – 60	61 and more
n (%)	25/28 (89.3%)	60/64 (93.8%)	67/69 (97.1%)	28/35 (80.0%)	3/5 (60.0%)
$\text{Chi}^2 = 14.93, p < 0.001$					

Some 44.8% (90) of workers experienced an assault, and 24.9% (50) – a battery. In psychiatric hospitals, attempted punching was reported by 63.2% (43) of workers, and a battery – 45.6% (31). In general hospitals, 52.1% (38) of the surveyed informed about an assault, and 24.7% (18) – about a battery. This form of violence was least common in primary care: 15% (9) of medical workers reported an assault, and one person (1.7%) – a battery.

An assault was more often experienced by security workers (83.3%, 15) and nurses (73.2%, 85) than by physicians (32.0%, 8); workers with vocational education (91.0%, 10) more often than by those with higher education (4.6%, 42); workers at the age of 31-40 years (64.1%, 41) more often than by those over 51 years of age (40.0%, 40).

This form of aggression was considerably more common among workers of psychiatric

hospitals (76.4%, 52) than those employed in primary care practices – 50% (30).

There were correlations between attempted punching and the level of workers' education – the higher the level of education, the rarer attempts at punching (Table 4). Furthermore, this form of aggression correlated with a workplace – workers of psychiatric and general hospitals faced it more often than those employed in primary care. Patients tried to hit nurses and security workers more often than physicians. Crude behaviors were more often experienced by nurses, security workers, and other non-physicians, as well as workers of psychiatric and general hospitals rather than physicians and medical staff of primary care practices. A battery correlated negatively with the level of education and a workplace – the higher the level of medical workers' education, the rarer they faced this form of violence; primary care workers also experienced physical attacks less often.

Table 4. The relationship between socio-demographic variables and forms of patient violence.

Form of aggression		Age	Education	Seniority		Gender	Profession	Workplace
Raised voice, shouting	r	-0.09	-0.02	-0.27	Chi ²	0.88	5.56	1.21
	p	0.18	0.82	0.70	p	0.35	0.14	0.55
Threats	r	-0.08	0.01	-0.01	Chi ²	0.05	1.77	2.41
	p	0.28	0.92	0.88	p	0.81	0.62	0.30
Extortion	r	0.02	0.06	0.06	Chi ²	0.01	3.45	1.28
	p	0.71	0.38	0.38	p	0.93	0.33	0.54
Blackmail	r	0.00	0.07	0.04	Chi ²	0.32	1.64	4.89
	p	0.98	0.31	0.60	p	0.58	0.65	0.09
Crude behaviors	r	-0.10	-0.18	-0.09	Chi ²	0.01	18.85	10.68
	p	0.15	0.01	0.20	p	0.87	0.00	0.01
Physical assault	r	-0.15	-0.16	-0.02	Chi ²	0.91	8.49	32.45
	p	0.03	0.02	0.82	p	0.34	0.04	0.00
Battery	r	-0.08	-0.17	0.006	Chi ²	1.73	5.93	32.91
	p	0.26	0.02	0.94	p	0.19	0.12	0.00
r – Spearman's rho correlation, Chi ² – chi-square test, p – significance level								

Reactions of medical staff to patient aggression.

Some 73.1% (147) of the surveyed health care professionals declared that as a reaction to verbal aggression from patients they calmly asked patients to behave properly, 19.4% (39) ignored their behaviors, 23.9% (48) asked co-workers for help, and 10.9% (22) walked away.

Young workers, aged 20-30 years (32.1%, 9), and those at the age of 31-40 years (35.9, 23) asked someone for help statistically significantly more often than their older counterparts. Men

(30.2%, 13) significantly more often than women (16.4%, 26) ignored patients' behaviors (p = 0.04). There were statistically significant correlations between reactions of medical workers to patients' verbal aggression and such variables as age, gender, education, seniority, and workplace. The older the workers were, the rarer they asked co-workers or superiors for help, and the more often they persuaded patients to behave properly – Table 5. Nurses (29.3%, 34) more often than other health care professionals (16.4%, 14) ask their co-workers and superiors for help (Chi² = 7.93, p = 0.04).

Table 5. The relationship between socio-demographic variables and reactions of medical staff to patients' aggressive behaviors.

Reactions of medical workers		Age	Education	Seniority		Gender	Profession	Workplace
Explaining/ Persuading	r	0.15	-0.11	0.12	Chi ²	2.98	2.97	16.88
	p	0.03	0.12	0.07	p	0.08	0.40	0.00
Ignoring	r	0.02	0.11	0.01	Chi ²	4.10	2.95	2.96
	p	0.69	0.11	0.88	p	0.04	0.40	0.23
Asking for help	r	-0.21	0.01	-0.14	Chi ²	0.01	7.93	4.94
	p	0.00	0.90	0.04	p	0.91	0.05	0.08
Walking away	r	0.01	0.17	-0.07	Chi ²	0.51	1.27	4.18
	p	0.91	0.02	0.33	p	0.48	0.74	0.12
r – Spearman's rho correlation, Chi ² – chi-square test, p – significance level								

Emotional reactions.

The most common emotional reaction to patient aggression was anger (45.8%, 92). Resignation was noted in 24.4% (49) of medical workers, anxiety in one-fifth of respondents (20.9%, 42), and fear in 19.9% (40). About 23.4% (47) of the surveyed declared other emotions, including: 3.0% (6) – nervousness, 3.0% (6) – indifference and 3.0% (6) – sympathy for patients, 5.9% (12) – compassion and frustration, and 1.5% (3) – resentment. Women (25.9%, 41) felt fear more often than men (2.3%, 1) ($\chi^2 = 11.41, p = 0.001$). Nurses declared anxiety (24.1%, 34) more often than representatives of other professions (13.3%, 8) ($\chi^2 = 12.98, p = 0.01$). Workers of psychiatric hospitals admitted to fear and anger (36.8%, 25) more often than workers of general hospitals (13.7%, 10) and primary care (8.3%, 5) ($\chi^2 = 18.93, p < 0.001$). Resignation was observed in 24.4% (49) of respondents, out of whom 73.4% (36) declared that it influenced their attitudes towards work ($\chi^2 = 6.13, p=0.01$).

Searching for help.

Most respondents who had experienced patient violence (50.7%, 102) coped with the

problem themselves, 32.8% (66) asked co-workers for help, and less than one fourth (24.4%, 49) asked superiors for help.

Workers with higher education asked their superiors for help (14.1%, 13) rarer than those with vocational (54.5%, 6) and secondary education (30.6%, 30); the difference was statistically significant ($p=0.04$). Respondents with higher education coped with patient aggression themselves (64.1%, 59) more often than those with vocational education (1 person). Nurses (50.0%, 58) coped with the problem themselves rarer than physicians (84.0%, 21); the difference was statistically significant ($p=0.04$). Asking superiors and co-workers for help correlated with profession and a place of work. Workers of psychiatric hospitals (36.8%, 25) asked their superiors for help more often than workers of primary care (8.3%, 5). General hospital workers (44.1%, 30) asked their co-workers for help more often than those from primary care (18.3%, 11). Primary care workers (68.3%, 41), on the other hand, coped with the problem themselves more often than those employed in psychiatric hospitals (42.6%, 29) – (Table 6).

Table 6. The relationship between searching for help and socio-demographic variables.

Searching for help		Age	Education	Seniority		Gender	Profession	Workplace
Superiors	r	0.02	-0.25	-0.01	χ^2	0.99	8.25	12.70
	p	0.71	0.00	0.88	p	0.32	0.04	0.00
Co-operators	r	0.00	-0.12	-0.04	χ^2	0.10	10.72	9.71
	p	0.95	0.09	0.58	p	0.75	0.01	0.01
Psychologists	r	0.04	0.08	0.07	χ^2	0.83	2.02	2.09
	p	0.51	0.22	0.31	p	0.36	0.57	0.35
Family	r	0.11	-0.04	0.08	χ^2	2.56	1.95	0.59
	p	0.12	0.51	0.28	p	0.11	0.58	0.75
Friends	r	-0.08	-0.02	-0.04	χ^2	3.55	8.21	0.80
	p	0.24	0.73	0.59	p	0.06	0.04	0.70
I help myself	r	-0.03	0.28	0.03	χ^2	0.17	17.46	10.60
	p	0.02	-0.25	0.66	p	0.69	0.00	0.01
r – Spearman's rho correlation, χ^2 – chi-square test, p – significance level								

Only 30.8% (62) of the surveyed health care professionals had the knowledge of worker protection procedures binding in their workplace. These procedures were familiar to 51.5% (35) of psychiatric hospital workers, 24.7% (18) of general hospital workers, and 15.0% (9) of primary care workers. Every fifth respondent (21.4%, 43) knew the Health Care Aggression Monitoring System employed in the workplace.

DISCUSSION

Aggression and work environment are closely related to each other, which negatively affects both workers' satisfaction with work and the quality of work organization in an institution. Di Martino [25] claims that more than a half of health care professionals experience acts of aggression from patients at work, up to 70-80% of who are

paramedics, nurses, and physicians. The research described in this article is one of few studies comparing the aggression towards health care workers employed in primary care, outpatient care and hospital units. The results obtained suggest that aggression in health care institutions in Poland is a problem which requires further analysis. The authors demonstrated that patient aggression towards medical workers takes mainly a form of verbal aggression evoking a number of negative emotions, which affect workers' attitudes towards their professional duties. However, physical attacks are also frequent. In the study of Adamowski [9] physical aggression was mostly manifested towards medical staff of psychiatric hospitals.

The most common forms of psychological aggression displayed by patients included: raised voice, threats, blackmail, and crude behaviors. Aggression of this type was mentioned by both workers of general and psychiatric hospitals, and those employed in primary care. This fact corresponds with the findings of the research conducted by Kowalczyk, et al. [20] among physicians and paramedics. During their contacts with nurses, patients speak in a raised tone of voice (85%) and use crude words [26, 27]. In the case of physicians the more common form of aggression is blackmail [20]. The study presented here demonstrated that nurses face patients' raised voice and shouting, rude behaviors, and physical attacks more often than other professional groups; these problems are also more common among psychiatric and general hospital workers than those employed in primary care. This corresponds with observations made by Merez et al. [6], who proved that psychiatric nurses faced patient violence more often than nurses employed in general hospitals.

Patients' aggressive behaviors evoke many emotions, which may affect the way they are treated and the therapeutic process itself [25]. Therefore, it is so important that health care professionals are prepared for such emotional reactions and able to predict their consequences.

Our study demonstrated that anger was the most common emotion occurring in response to patient aggression. Fear was more frequent among women than men. Employees with long seniority, on the other hand, felt fear, anxiety, and resignation. Fear of contacts with patients was significantly more often observed among workers in psychiatric and general hospitals than those employed in primary care. Similar relationships were demonstrated by Merez [6]. As stated by Sariusz-Skapska [27], fear observed in medical workers leads to their diffidence in contacts with patients, which paradoxically can result in higher aggression of patients. This gains particular significance during contacts with mentally disturbed patients [27].

Patient aggression in the health care sector requires complex preventive measures. Most acts of violence in health care institutions are not reported for the lack of adequate procedures or the lack of the knowledge of such procedures among employees, which was demonstrated both in the study presented here and those reported by other authors [28,29].

Limitations

This study does not provide information about the response rate and sociodemographic data of aggressors. The relationship between socio-demographic variables of aggressors and victims is worth taking into consideration in further research.

CONCLUSIONS

Exposure to workplace aggression is a common phenomenon in psychiatric and general hospitals as well as primary care practices. The problem concerns especially workers of psychiatric hospitals. Physical injuries in the workplace as a consequence of patient aggression were mainly noted in psychiatric and general hospitals. Types of emotions stirred up by patient aggression depend on workers' gender, actual profession, workplace, and seniority. The most common emotion is anger. The feeling of safety is related to workplace, the frequency of incidents of aggression, and physical injuries sustained as a result of patient aggression. Almost a half of psychiatric hospital workers do not feel safe at work. Nurses more frequently than other health care professionals ask their co-workers and superiors for help. The results show that nurses are not prepared to cope with difficult situations and that there is an urgent need for in-service training oriented to developing such abilities (especially workshops in the field of interpersonal communication skills). It is necessary to carry out further research into the problem of violence and aggression in the health care sector.

Conflicts of interest

The authors declare that there are no conflicts of interest of this paper.

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