

Socially dangerous sexual paraphilias: Frotteurism and necrophilia

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Abstract: This article deals with the study of the prevalence, etiology, pathogenesis and treatment of frotteurism and necrophilia, which are socially dangerous and are of great interest to the medical community. To summarize all available literature on frotteurism and necrophilia. Based on the PRISMA guidelines, the current review brings together all the existing literature on frotteurism and necrophilia. Socially dangerous paraphilias may be caused by biological, psychological and social factors and are treated with antiandrogens, gonadotropin-releasing hormone analogs and selective serotonin reuptake inhibitors as well as psychotherapy. Analysis of the data on the treatment of socially dangerous paraphilias revealed good results across each type of paraphilia and treatment method used, demonstrating a significant reduction in deviant behavior and paraphilic desires after the treatment and into the follow-up phase. Yet, all of these results cannot be verifiable, as conclusions about them were made based on the patients' personal reports, which may not be objective. High-quality placebo-controlled studies on the treatment of socially dangerous paraphilias are lacking. Clinicians should be aware that the prevalence of socially dangerous paraphilias is not negligible and that people with deviant sexual urges should be encouraged to seek professional help before committing a crime or a self-injurious act. More extensive epidemiological studies are required to clarify the actual prevalence of socially dangerous paraphilias in the population and methods of their treatment alongside with destigmatization of patients with paraphilias and engaging them in treatment before they commit a crime.

Keywords: *Frotteurism, Necrophilia, Sexual paraphilias.*

1. Introduction

The concept of sexual paraphilias was first mentioned in the literature by Richard von Krafft-Ebing in *Psychopathia Sexualis* [1]. According to International Classification of Diseases, 10th Revision (ICD-10), sexual paraphilias are disorders of sexual preference and include conditions such as fetishism, fetishistic transvestism, exhibitionism, voyeurism, pedophilia, sadomasochism, and multiple disorders of sexual preference [2]. Currently, sexual behavior patterns are being depathologized, and only those sexual behaviors that are associated with violence and sexual actions against minors, *i.e.*, socially dangerous behaviors, are viewed as diseases. These changes are reflected in the International Classification of Diseases, 11th Revision (ICD-11), where sexual paraphilias are defined as disorders characterized by persistent and intense patterns of atypical sexual arousal, manifested by sexual thoughts, fantasies, urges, or behaviors, the focus of which involves others whose age or status renders them unwilling or unable to consent and on which the person has acted or by which he or she is markedly distressed. Paraphilic disorders may include arousal patterns involving solitary behaviors or consenting individuals only when these are associated with marked distress that is not simply a result of rejection or feared rejection of the arousal pattern by others or with significant risk of injury or death [3]. Thus, socially dangerous paraphilias include pedophilia, exhibitionism, voyeurism, sexual sadism, autoasphyxiation, frotteurism, and necrophilia. This article is devoted to an overview of the

epidemiology, etiology and pathogenesis as well as the possible treatment of frotteurism and necrophilia.

2. Materials and Methods

The current review was conducted according to PRISMA-P (preferred reporting items for systematic review and meta-analysis protocols) guidelines [4].

Terminology. According to ICD-10, necrophilia is sexual gratification from sexual activities with a dead person. Frotteurism is a sexual perversion that manifests itself in an intense urge to touch and rub one's genitals up against another, unfamiliar person in a crowded place [2].

Inclusion Criteria. A literature search was performed using the following inclusion and exclusion criteria: research articles with a focus on frotteurism and necrophilia generating original data were included; books on frotteurism and necrophilia were included; review article on frotteurism and necrophilia were included; case reports on frotteurism and necrophilia were included; opinion articles, (comment) letters were excluded. These inclusion criteria were driven by the generally accepted scientific hierarchy of evidence.

Information Sources. A PubMed database search (1960–October 2024) for all language articles was conducted using the following search terms: frotteurism, OR necrophilia.

Study Selection. Titles and abstracts were screened to eliminate irrelevant articles. Full texts of potentially relevant articles were read and screened for further eligibility; the final selection was made in consensus by N.D.N. and M.M. See Figure 1 for PRISMA Flow Diagram (based on reference) [4].

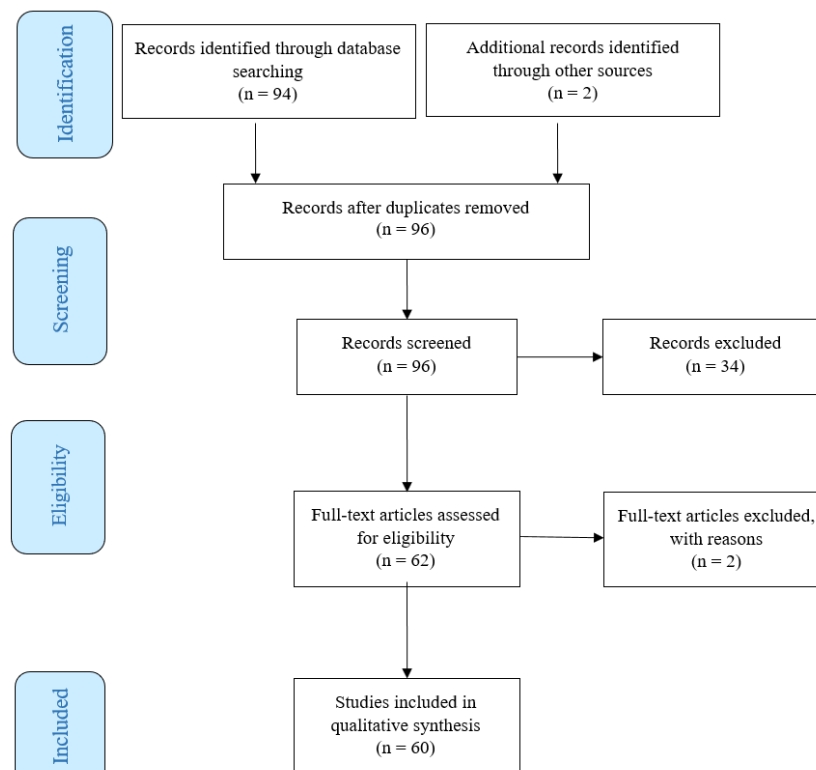


Figure 1.

Preferred reporting items for systematic review and meta-analysis protocols flowchart. PRISMA = preferred reporting items for systematic review and meta-analysis protocols. Socially Dangerous Sexual Paraphilias: Frotteurism and Necrophilia.

3. Results

3.1. Frotteurism

The etiology of frotteurism is unknown. Frotteurism is a phenomenon little described in the literature, and its true prevalence has not been studied. According to some authors, frotteurism was found in 9% to 35% of the interviewed participants in several studies [5]. The systematic review conducted by Scott Johnson *et al.* in 2014, refers to one study where frotteurism was found in 35% of the respondents, and in three other studies the prevalence of frotteurism was 7.9%, 9.1%, and 9.7%, respectively [6]. In a study conducted in India with 200 participants, frotteurism was found in 11.5% of the respondents [7]. In a review article in 2024 authors report the prevalence of frotteurism between 9% to 35% [8]. Frotteurism has a negative impact on victims. 459 undergraduate students in a major metropolitan city completed a self-report measure designed to investigate the frequency and correlates of frotteurism and exhibitionism. Results indicate a high rate of victimization among female college students for both paraphilias. Furthermore, acts of frotteurism and exhibitionism most often occurred in places related to public transportation (e.g., subway trains or platforms) in this urban setting. In addition, victims reported a number of negative outcomes as a consequence of victimization, including feelings of violation, changes in behavior, and even long-term psychological distress. Older females were the most likely to be victimized [9]. All of the above studies were of poor quality in terms of methodology. Not only frotteurism, but also paraphilias in general are often combined with conditions such as social anxiety, traumatic brain injury, history of sexual abuse, intellectual disabilities, substance abuse, and presence of other or more than one paraphilia [5, 10].

Neurotransmitters and hormonal status. There are few studies in the literature that have looked into these factors specifically in case of frotteurism. One clinical case is described in which frotteurism and pathological jealousy developed in a 51-year-old patient with Parkinson's disease as a result of a 5-year treatment with pergolide (a dopamine receptor agonist) [11].

Biological factors. One case of frotteurism was described in a 23-years old man with mega cisterna magna (MCM). MCM is a brain development abnormality that occurs in 1% of radiographic images. It occurs when the transverse dimension of the cerebellospinal reservoir is greater than 10 mm. It is the most important reservoir in the cranial cavity. From the front it is limited by the extended medulla, from the rear by the dura mater, and from the top by the cerebellum. Isolated anomalies in the structure of this brain region often do not cause any clinical symptoms. However, more and more attention is paid in research on the participation of the cerebellum in the regulation of cognitive and affective processes. These processes, in turn, may also be related to the regulation of sexual life [12].

Psychological factors. According to psychoanalytic theories, the desire of frotterists to touch the genitals of the victims and rub up against their bodies is the equivalent of an infant's desire to cuddle with its mother. Individuals engaging in these behaviors may fantasize that they share an exclusive and caring relationship with their non-consenting victims during the act. There are opinions that those who practice frotteurism have problems with the perception of tactile sensations that manifest themselves in traditional sexual interaction. Most commonly, this deviation occurs in young men aged 15 to 25, and it is very rare in women. The victims of frotterists are usually young women. Individuals who practice frotteurism often have a history of premature ejaculation [5]. A study of 489 men who had experienced childhood sexual abuse found that multiple forms of child maltreatment were strongly associated with adult sexual aggression, including frotteurism in this sample of men from the general population [13].

In general, compulsive sexual behavior, which includes frotteurism, is common in manic patients, but Gurvinder K. describes a case of frotteurism in a 25-year-old patient with depression [14]. The same paper mentions a study referring to major depression or dysthymia in 14 out of 36 subjects reporting compulsive sexual behavior. Minor sexual offences, including frotteurism, often combined with mental diseases. Singapore study of 157 sexually violent psychiatric clinic patients showed that schizophrenia was the predominant psychiatric diagnosis amongst the offenders (45.3%) followed by mental retardation (21.7%). Only 28.7% of those suffering from a mental illness experienced active psychiatric symptoms at the time of the sexual offence. Touching, stroking or fondling were the most frequently reported type of molestation (60.5%) [15].

3.2. Necrophilia

There is very little data on this paraphilia in the literature. Three types of necrophilia are distinguished: murder followed by a necrophilic act, necrophilia with already dead bodies, and necrophilic fantasies [16]. Sometimes necrophilia is combined with cannibalism, vampirism (drinking blood of humans) as all are considered perversions [17, 18]. Aggrawal proposes a ten-tier classification based on the severity of the psychosexual disorder. *Class I necrophiliacs: the role players*. These persons get sexually aroused by sexual contact with a living person pretending to be dead. *Class II necrophiliacs: the romantic necrophiles*. These persons are described as those who are normal bereaved people who cannot bear separation from their loved ones. After the death of their loved one they continue to relate to the body sexually as they did before the passing. It is suggested that they recover as time passes. *Class III necrophiliacs: necrophilic fantasizers*. This class fits those who only fantasize about having sex with a corpse, but do not have any physical contact with one. Those who masturbate in cemeteries or would enjoy sexual actions close to a coffin are included in this class. *Class IV necrophiliacs: tactile necrophiles*. These type of necrophiles need to touch a corpse in an erotic way to obtain an orgasm. *Class V necrophiliacs: Fetishistic necrophiles*. Fetishistic necrophiles are described as those who will not engage in any sexual intercourse with dead bodies but cut up or cut off some portion of the body for fetishistic activities. They may also keep a part of the dead body close to them. *Class VI necrophiliacs: necromutilomaniacs*. These persons are described as those who do not engage in any sexual intercourse with a corpse. However, they experience sexual pleasure from mutilating corpses in combination with simultaneous masturbation. It may occur that part of the dead body is eaten (necrophagia). *Class VII necrophiliacs: opportunistic necrophiles*. They are described as persons who normally enjoy sexual relations with the living. If, however an opportunity would arise, they would have sex with a dead body. Rosman and Resnick (1989) categorize these types of necrophiliacs under pseudonecrophilia. *Class VIII necrophiliacs: regular necrophiles*. Persons categorized in this typology are described as 'classical necrophiles'. Regular necrophiles would not enjoy sexual intercourse with the living. They would seek out, or even steal a dead body to have sexual intercourse with. However, regular necrophiles would however also have sexual contact with the living, but it is not preferred. *Class IX necrophiliacs: homicidal necrophiles*. They are classified as the most dangerous category of necrophiliacs. Homicidal necrophiles are described as persons who resort to killing to obtain a dead body to have sex with. *Class X necrophiliacs: exclusive necrophiles*. These are persons who are unable to have sexual intercourse with the living. They will only have sex with dead bodies [18].

Gravediggers and mortuary attendants, who are most often found practicing necrophilia, engage in this activity perhaps because of their loneliness, coupled with easy access to corpses. It is also possible, that they chose this profession in the first place because they were necrophiles. It is known that necrophiles often chose a profession which allows them free and unhindered access to dead bodies [18].

3.3. Specific Biological Factors Characteristic of Necrophilia Are Not Described in the Literature

Psychological factors. Abraham A. Brill, who published one of the earliest detailed studies of necrophilia in 1941, characterized necrophiles as mentally deficient, psychotic, and incapable of obtaining a consenting partner [19]. Some authors consider that one of the psychodynamic causes of necrophilia is the desire to possess an unresisting and unrejecting partner [16]. Other psychoanalysts argue that necrophilia could be interpreted as a regressive desire to return into a phylogenetically older stage of life development, where no individual dies, and life continues without interruption. It is regressive desire – a magic conviction about the possibility to receive a dead person-common in preliterate cultures. Necrophilia represents an attempt at symbolic unification between antagonistic active and passive drive tendencies and between the Libido and the Destructive instinct [20]. Necrophilia is often combined with severe mental pathology. In a study with 53 necrophiles, it was found that 19% had mental retardation, 13% had neurotic disorders, 7.5% had epilepsy, 5.5% had depression, and 4% had psychosis [21]. According to other authors, psychosis was found in 11% of necrophiles [16].

4. Treatment of Frotteurism and Necrophilia

Very few studies on the treatment of sexual paraphilias are described in the literature. In general, the description of treatment is limited to articles on small studies without a control group, or on individual clinical cases. Historically, methods such as psychoanalysis, cognitive behavioral therapy, and aversion therapy have been used to treat paraphilias. Kuruvilla K and Joseph S report the successful treatment of frotteurism in a homosexual man using progressive muscle relaxation and aversion therapy [22]. A small study summarizing six case reports refers to the successful use of leuprolide acetate (leuprolide), a luteinizing hormone-releasing-hormone agonist, in the treatment of paraphilias. All six study subjects were diagnosed with at least one of the following paraphilias: pedophilia, sexual sadism, frotteurism, and paraphilia not otherwise specified. All six subjects reported a reduction in sexually deviant symptoms following treatment with leuprolide [23]. Patra AP with coauthors report the successful treatment of frotteurism in a 12-year-old boy with sertraline [24]. In general, antiandrogens, GnRH analogues and selective serotonin reuptake inhibitors (SSRIs) are used in the pharmacological treatment of paraphilias [10]. GnRH analogue treatment constitutes the most promising treatment for sex offenders at high risk of sexual violence, such as pedophiles or serial rapists. SSRIs remain an interesting option in adolescents, in patients with depressive or obsessive-compulsive disorders (OCD), or in mild paraphilias such as exhibitionism [25]. The effectiveness of the treatment of patients with paraphilia increases with the addition of psychotherapy [26]. The treatment of paraphilias with antiandrogens uses medroxyprogesterone acetate or cyproterone acetate. It should be noted that the use of these medications can cause side effects such as osteoporosis, gynecomastia, depression, thromboembolism, and liver dysfunction, which limits their use [25]. Another group of medications used in the treatment of paraphilias is gonadotrophin-releasing hormone (GnRH) analogues. GnRH analogues act initially at the level of the pituitary to stimulate Luteinizing hormone (LH) release, resulting in a transient increase in serum testosterone levels. After an initial stimulation, GnRH analogues cause rapid desensitization of GnRH receptors, resulting in reduction of LH and testosterone to castrate levels. Rösler A and Witztum E describe a study of 30 men with severe paraphilia who received triptoreline (GnRH analogue) 3.75 mg once a month and supportive psychotherapy for 8 to 42 months. All patients reported the disappearance of paraphilic fantasies and behaviors [26]. Overall, it should be noted that at present there are no high-quality placebo-controlled studies on the treatment of socially dangerous paraphilias. The studies presented in the literature cannot provide reliable scientific information about the best treatment for this pathology. Summary of the data on the treatment of the described paraphilias is given in Table 1.

Table 1.
Methods of treatment of socially dangerous paraphilias.

Study	Paraphilia	Study design	Sample size (M/F)	Age range	Method of treatment	Results	Remarks
Kuruvilla K, Joseph S ²²	Frotteurism	Case report	1 (M)	50	Progressive muscle relaxation in combination with aversion therapy (a total of 18 sessions of 1 hour each; progressive muscle relaxation was used in the first seven sessions and aversion therapy was used in the remaining 11 sessions).	Paraphilic desires disappeared; patient stopped avoiding situations that previously provoked his urges.	Conclusions about the results were made based on the patient's personal reports, which may not be objective.
Saleh FM, Niel T, Fishman MJ ²³	Pedophilia, sexual sadism, frotteurism, and paraphilia not otherwise specified	6 case report review	6 (M)	Not reported	Leuprolide acetate,	All six subjects reported a reduction in sexually deviant symptoms.	Conclusion about the effectiveness was made based on the reports of the patients themselves.
Rösler A, Witztum E ²⁶	Pedophilia, voyeurism, exhibitionism, frotteurism	Uncontrolled observational study	30 (M)	19-42	Triptorelin 3.75 mg per month intramuscularly together with supportive psychotherapy for 8-42 months	In all cases, paraphilic fantasies and behavior disappeared.	Conclusions were based on patients' reports.
Patra AP, et al ²⁴	Frotteurism	Case report	1	12	Sertraline 50 mg/day	Remission of the symptoms 6 months after the onset of treatment and without relapse thereafter	Conclusions were based on patients' reports.

5. Discussion

Socially dangerous paraphilias in the population are quite common. Biological, social and psychological factors play a role in their development [27]. The cause of paraphilias can also be brain tumors, epilepsy, previous neuroinfections, and traumatic brain injuries [28]. Psychoanalysts and psychodynamically oriented psychotherapists explain the development of paraphilias by various unresolved conflicts in early childhood (Oedipus complex, fear of castration, repressed incestuous desires, etc.). With the help of modern scientific methods, it is not possible to confirm or refute these theories. The treatment of sexually dangerous paraphilias is still a formidable challenge. Most often, people suffering from them do not seek medical help on their own, and turn to a specialist only when they come to the attention of law enforcement bodies. As a rule, treatment is carried out either by a court order, or the patient seeks help during the investigation in the hope of receiving a lighter sentence for the crime committed. Treatment is often received in detention facilities. Patients undergo treatment either in a compulsory manner or in the hope of obtaining a secondary benefit, such as early release on parole. At the same time, conclusions about the effectiveness of a particular treatment method in studies are usually made on the basis of an assessment of the patients themselves. It can be expected that patients report the disappearance of paraphilic symptoms even when this is not the case. Therefore, studies are at risk of error. Paraphilias are treated with medications, psychotherapy, and a combination of the two methods. Cognitive-behavioral therapy is currently the most commonly used psychotherapeutic method. Its advantage is its short duration, low cost and relative ease of use (there is no need to train specialists for many years or require personal psychotherapy of specialists, as is necessary for psychodynamic therapy). Most often, cognitive-behavioral therapy is provided by specially trained prison staff or probation officers. The results of this treatment are ambiguous and contradictory. Some studies demonstrate that the recurrence rate of sex offenses decreases in individuals who have completed a special treatment program for sex offenders, whereas other studies report that the relapse incidence increases [29]. The qualifications and experience of the therapist are of great importance. It is difficult to establish the effectiveness of psychodynamic psychotherapy in the treatment of sexually dangerous paraphilias. This type of psychotherapy is more in-depth and focuses on changing the structure of the personality and personality traits, and a long-term change in social functioning. One would expect high effectiveness from this type of therapy. Yet, the medical literature has no data on studies on this method of treatment for socially dangerous paraphilias. Psychodynamic psychotherapy is a long-term treatment (taking several years) and, therefore, expensive. As a result, it is not funded by the state for the treatment of paraphilias in most countries. Due to the lack of a sufficient number of patients and the long duration of therapy, it is difficult to conduct scientific studies on its effectiveness. Modern pharmacological treatment of paraphilias has many ethical restrictions and side effects. Effective are medications that suppress the secretion of testosterone, which include antiandrogens and GnRH analogue. The result of this treatment is the suppression not only of paraphilic interests, but of all sexuality. The patient becomes unable to be sexually active. This leads to complications in relations with a partner, if any, as well as to many psychological problems. In addition, these medications cause a number of side effects, such as osteoporosis, obesity, liver dysfunction, depression, insomnia, etc. In this regard, their use is very limited and they can only be used with the consent of the patient. The limitations of our review are the small amount of scientific data on frotteurism and necrophilia. The available literature mainly refers to the treatment of sex offenders who are handed over to judicial bodies, which limits the possibilities to measure the actual spread of socially dangerous paraphilias, their etiology, pathogenesis, and effective methods of treatment. Until now, the stigmatization of people suffering from paraphilias has been widespread in society. Therefore, they are afraid to seek help even when their paraphilic desires exist at the level of fantasies and masturbation, without committing a crime.

6. Conclusions

More extensive epidemiological studies are needed to clarify the true prevalence of frotteurism and necrophilia in the population. The medical community needs to promote the notion “thoughts do not mean actions,” *i.e.*, to encourage people to be aware of, and discuss, their various sexual desires, but learn

to control those urges, which may lead to crime. More research is needed on the treatment of sexually dangerous paraphilias. Extensive research is also needed on the medical, psychological and social anamnesis of individuals suffering from frotteurism and necrophilia, which will provide a more accurate understanding of the etiology of this socially dangerous condition.

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References

- [1] Krafft-Ebing R. Psychopathia sexualis, 1907 – F. Enke.
- [2] International Classification of Diseases, 10th Revision. World Health Organization. Available at: <https://www.who.int/standards/classifications/classification-of-diseases>. Accessed Oktober 20, 2024
- [3] International Classification of Diseases, 11th Revision. World Health Organization. Available at: <https://icd.who.int/browse11/l-m/en#/http%3a%2f%2fid.who.int%2fid%2fentity%2f2110604642>. Accessed Oktober 20, 2024
- [4] Moher D, Shamseer L, Clarke M, *et al.* Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Syst Rev.* 2015; 4(1):1. doi: 10.1186/2046-4053-4-1
- [5] Bhatia K, Parekh U. Frotteurism. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan
- [6] Johnson RS, Ostermeyer B, Sikes KA, *et al.* Prevalence and treatment of frotteurism in the community: a systematic review. *J Am Acad Psychiatry Law.* 2014; 42(4): 478-83
- [7] Nilamadhab K, Koola MM. A pilot survey of sexual functioning and preferences in a sample of English-speaking adults from a small South Indian town. *J Sex Med.* 2007; 4(5): 1254-61. doi: 10.1111/j.1743-6109.2007.00543. x. Epub 2007
- [8] Bhatia K, Parekh U. Frotteurism. 2023 Aug 8. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. PMID: 33085407.
- [9] Clark SK, Jeglic EL, Calkins C, Tatar JR. More Than a Nuisance: The Prevalence and Consequences of Frotteurism and Exhibitionism. *Sex Abuse.* 2016 Feb;28(1):3-19. doi: 10.1177/1079063214525643. Epub 2014 Mar 4. PMID: 24598839.
- [10] Požarskis A, Požarska R. Socially Dangerous Sexual Paraphilias: Description of the Problem. PROCEEDINGS OF THE LATVIAN ACADEMY OF SCIENCES. Section B, Vol. 77 (2023), No. 5/6 (746/747), pp. 217–225. DOI: 10.2478/prolas-2023-0031
- [11] Cannas A, Solla P, Floris G, *et al.* Hypersexual behaviour, frotteurism and delusional jealousy in a young parkinsonian patient during dopaminergic therapy with pergolide: A rare case of iatrogenic paraphilia. *Prog Neuropsychopharmacol Biol Psychiatry.* 2006; 30(8):1539-41. doi: 10.1016/j.pnpbp.2006.05.012. Epub 2006.
- [12] Błachut M, Dębski PG, Badura-Brzoza K, Świerzy K, Lew-Starowicz Z. Mega Cisterna Magna (MCM) in a man with frotteurism symptoms - a case report. *Psychiatr Pol.* 2023 Jun 30;57(3):563-575. English, Polish. doi: 10.12740/PP/147726. Epub 2023 Jun 30. PMID: 38043073.
- [13] King AR, Kuhn SK, Strega C, Russell TD, Kolander T. Revisiting the link between childhood sexual abuse and adult sexual aggression. *Child Abuse Negl.* 2019 Aug; 94:104022. doi: 10.1016/j.chiabu.2019.104022. Epub 2019 Jun 12. PMID: 31200261.
- [14] Gurvinder K. The depressive façade in a case of compulsive sex behavior with frottage. *Indian J Psychiatry.* 2013; 55(2): 183-185
- [15] Chan AO, Lim LE, Ong SH. A review of outrage of modesty offenders remanded in a state mental hospital. *Med Sci Law.* 1997 Oct;37(4):349-52. doi: 10.1177/002580249703700412. PMID: 9383946.
- [16] Rosman J P, Resnick P J. Sexual attraction to corpses: a psychiatric review of necrophilia. *Bull Am Acad Psychiatry Law.* 1989; 17(2): 153-63
- [17] Lester D, White J, Giordano B. Cannibalism. *Omega (Westport).* 2015;70(4):428-35. doi: 10.1177/0030222815573732. PMID: 26036062.
- [18] Aggrawal A. A new classification of necrophilia. *J Forensic Leg Med.* 2009 Aug;16(6):316-20. doi: 10.1016/j.jflm.2008.12.023. PMID: 19573840.
- [19] Brill, Abraham A. Necrophilia. *Journal of Criminal Psychopathology.* 1941; 4:433-43.
- [20] Krizek GO, Lidinger HG. Pokus o komparativně biologickou a dynamickou interpretaci nekrofilie [A comparative biology and dynamic interpretation of necrophilia]. *Cesk Psychiatr.* 1993 Apr;89(2):98-102. Czech. PMID: 8403031.
- [21] Moscatello R. Necrofilia: uma rara paraphilia [Necrophilia: a rare paraphilia]. *Braz. J. Psychiatry.* 2010; 32(3) <https://doi.org/10.1590/S1516-44462010000300021> (in Portuguese)
- [22] Kuruvilla K, Joseph S. A case of frotteurism and its successful treatment by behaviour therapy. *Indian J Psychiatry.* 1983; 25(2): 159-61
- [23] Saleh FM, Niel T, Fishman MJ. Treatment of paraphilia in young adults with leuprolide acetate: a preliminary case report series. *J Forensic Sci.* 2004; 49(6): 1343-8

- [24] Patra AP, Bharadwaj B, Shaha KK, Das S, Rayamane AP, Tripathi CS. Impulsive frotteurism: a case report. *Med Sci Law*. 2013 Oct;53(4):235-8. doi: 10.1177/0025802412474813. Epub 2013 Aug 8. PMID: 23929674.
- [25] Thibaut F. Pharmacological treatment of paraphilias. *Isr J Psychiatry Relat Sci*. 2012; 49(4): 297-305
- [26] Rösler A, Witzum E. Pharmacotherapy of paraphilias in the next millennium. *Behav Sci Law*. 2000; 18(1): 43-56. doi: 10.1002/(sici)1099-0798(200001/02)18:1<43: aid-bsl376>3.0.co;2-8
- [27] Harenski CL, Kiehl KA. Emotion and Morality in Psychopathy and Paraphilias. *Emot Rev*. 2011; 3(3): 299-303. doi: 10.1177/1754073911402378
- [28] Simpson GK, Sabaz M, Daher M. Prevalence, clinical features, and correlates of inappropriate sexual behavior after traumatic brain injury: a multicenter study. *J Head Trauma Rehabil*. 2013; 28(3): 202-10. doi: 10.1097/HTR.0b013e31828dc5ae.
- [29] Tyler N, Gannon TA, Olver ME. Does Treatment for Sexual Offending Work? *Curr Psychiatry Rep*. 2021; 23(8): 51. doi: 10.1007/s11920-021-01259-3