## **Summary**

The thesis consists of two parts. The first part analyses the scientific literature on sadism, masochism and sadomasochism. This part of the thesis is written in Czech. A series of five papers is presented in the second part.

The review focused mainly on findings based on non-clinical population. Firstly, different aspects of medical, ethological and SM (BDSM) community definitions were compared with latest findings. Some contradictory approaches were discussed. We can conclude that medical definitions mirror violent and criminal behavior while SM (BDSM) community definitions stress voluntariness and consensus. In fact, sadomasochism consists of more independent phenomena. The D/s fraction (submisivity and dominance in sex) differs from "physical" SM (liking to receive or to cause strong stimuli). Leathersex is typical for homosexual men.

A large portion of general population claim to be sexually aroused by behavior that is considered to be sadomasochistic sex. Also, numerous individuals practice sadomasochistic sex.

Sadomasochistic sex includes typical sexual practices and role playing. The frequency of preferred practices and roles, and demographic description of engaged individuals is enclosed. The problems in relationships are mentioned.

The SM (BDSM) subcommunities were formed to support the sadomasochists, help them to socialize and provide them with information. The communities structure norm of behavior.

The focused population engaged in sadomasochistic sex did not show marks of mental illness.

There was no support for any theory of origin of sadism, masochism or sadomasochism in the cited studies. Even psychoanalytic and freudian theory fail to explain the evidence. However, it seems that higher socioeconomic status increases preference for sadomasochistic sex. Consequently, high occurrence of SM (BDSM) communities should be in rich countries with gender equalities. In fact, some studies indicate that there may be an evolutionary connection between mate choice and preference of dominance or submissivity in sex.

Finally, the approaches of doctors and common population toward the BDSM phenomenon are noted.

The title of the first enclosed article is Dominance, submissivity (and homosexuality) in general population. Dominance and submissiveness represent strong sexual arousal stimuli for a considerable part of population. In contrast to men's sexual dominance and women's sexual submissiveness, the opposite preferences represent an evolutionary enigma. Here, we studied the prevalence and strength of particular preferences in general population by an Internet-trap-method. The subjects who clicked the banner displayed in the web interface of e-mail boxes were allowed to choose icons with homosexual or heterosexual partner of different hierarchical position. The dominant partner was chosen by 13.8% men and 20.5% women, and the submissive partner by 36.6% men and 19.8% women. Homosexual partners were chosen by 7.3% men and 12.2% women. The response times for the submissive and dominant stimuli did not differ while they were significantly longer for the equal-status stimuli, suggesting that a part of the subjects with equal-status preferences probably intentionally mask their natural interests. The large number of people who chose an unequal sexual partner suggests that hierarchical status plays an important role in human mating systems.

Next article with connection to sexuology is called "Náhled do biologie sexuálního chování – etologie, evoluce a sexuální variace". It is focused on a striking contrast between the biological and medical approach to sexual variations. Three noticeable points of inconsistency are discussed. Firstly, variant sexual behavior may not automatically mean impaired behavior. Secondly, from the biological point of view there is an evidence for continuity instead of a split of human sexuality into normality and deviance with a large gap between the two. Thirdly, the theory of courtship disorder and the theory of sexual motivation system may not be valid due to a lack of explanation for a wide range of behavioral patterns. Some variant sexual behavior may arise from natural behavior (e.g. SM). Moreover, variant

sexual behavior may have a phylogenic ground (e.g. homosexuality). Biology should be taken in account even in the case of human sexual behavior.

The other articles are focused on influence of the parasite *Toxoplasma gondii* on human behavior. The last article analyzes gender differences in sensory-related assessments in mate choice and non-social contexts.