Relation between sexual activity, sexual behavior and sport performance

Conference Paper · January 2016

CITATIONS
0

READS
3,720

1 author:

Petr Vajda
Masaryk University
18 PUBLICATIONS **34** CITATIONS

SEE PROFILE

RELATION BETWEEN SEXUAL ACTIVITY, SEXUAL BEHAVIOR AND SPORT PERFORMANCE

Petr Vajda
Faculty of Sports Studies, Masaryk University, Brno, Czech Republic

Abstract

Sexual abstinence before exercise is ingrained. Present knowledge in these fields is inconsistent. This paper aims is to relate combat sport performance and sexual activity. The main goal is to describe the subjective perception of the impact of sexual activity on the sport performance and potential changes in sexual behaviour associated with increased training and competition loads at combative sports athletes and describe the sexual behaviour the athletes have in combative sports. Data was collected through anonymous questionnaires from 67 athletes actively competing in combative sports over 18 years old and older. Competitive level of the athlete covers all levels including regional to national team. The result shows that the frequency modification of sexual habits before and during competitions at the period when the burden rises to a competitive level. Frequently mentioned changes in sexual activity before the competition, was reduced frequency of sexual activity or abstinence. In the research the athletes indicated that in a 47% they feel some changes during the sports performance connected to sexual activity and an 83% perceive changes in the psychological component of their performance. In the psychological component are changes in most cases positive, but in the opposite in physical component are changes more negative. The group of athletes which were part of the research exhibited an increasing appetite for sexual activity and numerous of sexual partners than the average population in Czech Republic. In light of the results it can be presumed that there is some influence of sexual activity or abstinence on combative sports athletes' performance, even though some research shows the opposite opinion. The knowledge of this influence is incomplete and needs another review. Mainly in research effect of sexual abstinence on sport performance.

Keywords: *Athletic performance, sexual abstinence, habits, questionnaires, athletes, effect*

Introduction

The knowledge of this topic has long time disagree with the practices of athletes. In combat sports, the strongly established abstinence before a sport activity is definitely not a recent trend. Already in the first century Greek physician Dr. Aretaeus asserted that male power can be increased with the retention of semen and even today it is

possible with this assertion meet with prominent trainers (Bishop, 2012). The actual scientific knowledge varies. Studies show that sexual activity has minimal or no effect on athletic performance. Johnson (1967) conducted a research on the maximum power output, from which it emerged that coitus night before a sport activity does not affect the maximum strength. Likewise, it was shown that sexual activity 12 hours before the sport activity does not affect the aerobic performance (Boone & Gilmore, 1995). Two hours after sexual activity, showed a minor difference in the heart rate increased on a cyclo-ergometer, however these symptoms disappeared 10 hours after sexual activity, which disproved the possibility of influencing the performance of sexual activity with sufficient recovery time. Sexual activity at the same time did not influence psychical concentration (Sztajzel, Periat, Marti, & Rutishauser, 2000). The studies until 2000 is integrally summarizes in the work of Shrier and McGlone (2000). They argue that the information is insufficient and the effect may be highly individual, at the same time they draw attention to the hypothesis that sexual frustration can be transformed into aggression that support the performance. The opinions of many coaches that supports this study, which claims that the dangerous behavior during the performance could be the behavior often associated with sexual activity (nighttime activities, lack of sleep, alcohol) (Anshel, 1981). Sexual activity affects the organism calming effect, reduces stress and suppresses aggression (SayfollahPour, Heidary, & Mousavi, 2003). Is true that this may become a negative factor in combat sports, where there is often required a considerable degree of aggressiveness. This is confirmed by Maria Cristina Rodriguez Gutierrez from the National Autonomous University of Mexico, which claims that in martial arts sexual activity can lead to passivity and reduction of aggression (Nieto, 2012). There are also studies showing elevated levels of testosterone during sexual abstinence (Jiang, Xin, Zou, & Shen, 2003; Krüger, et al., 2003) (Exton, et al., 2001). Testosterone influences the anabolic processes of muscle growth, strength and also is an important determinant of aggressiveness. This information may lead to a hypothesis of the improvement on the performance in combat sports during abstinence due to elevated levels of testosterone. Is interesting that, sexual activity increases testosterone levels, but not increased it chronically, after the sexual activity the level of testosterone gradually returns to normal (Dabbs Jr. & Mohammed, 1992). Also the questionnaire methods which is use in this work, have already been used. Long distance runners rated their feelings of sexual activity and the effect on its performance. It revealed that there is no effect on their performance 12 hours after sexual activity. In the brief intervals of 30 minutes after the sexual activity was recorded many changes (Pupiš, Raković, Stanković, Kocić, & Savanović, 2010).

If we look at the sexual activity as physical activity is for us essential energy expenditure, which the athlete this way will lose. This could play a relatively important role in the period of increased activity or training before the competition.

Energy output values are relatively low, Frappier, Toupin, Levy, Aubertin-Leheudre a Karelis (2013) they measured normal sexual activity in a men (age 22.6 ± 2.8) energy consumption 101 ± 52 Kcal with the intensity 4.2 ± 1.3 Kcal/min. With feelings of fatigue after sexual activity culminating in orgasm is associated increased levels of prolactin (Krüger, et al., 2003). Is probably the increased secretion of prolactin concerns the control of sexual activity (Krügera, Haakea, Hartmannb, Schedlowskia, & Extona, 2002). Increased secretion of prolactin after orgasm also reduces levels of dopamine (Robinson, 2004). In terms of performance in combat sports is an interesting fact that prolactin has a negative effect on testosterone levels (Weiss, et al., 2010, p. 88). In terms of current sports performance with physical stress comes to the increased levels of prolactin, but its effects on the efficiency of movement and performance are not described (Kenney, Wilmore, & Costill, 2012, p. 99). The study of judo athletes pointed a possible link between prolactin and performance in judo. The winners showed a lower level than losers (Suay, et al., 1999). Sexual activity and orgasm is associated primarily oxytocin secretion (Krüger, et al., 2003). It is often referred to as hormone "happiness" or "love". Overall leads to calm, credulity and reduces aggression. There are also links between oxytocin and improve therapeutic functions within the body (Magon & Kalra, 2011). The rate of secretion in sports load nor the impact in performance is not known (Kenney, Wilmore, & Costill, 2012, p. 99). Generally oxytocin can induce a feeling of sleep

In sexual behavior, we can assume that martial athletes may have an advantage when selecting a partner which does not seek long-term partnerships. In general we can say that an important role is played by the characters associated with testosterone and indicators of good immunity. For short-term sexual strategies in women are also important behavioral characteristics (bravery, strength, courage, honor, competition, creative properties etc.). There we can also include sexual aggression in milder forms (assertiveness, urgency). It will probably be carried over to their children, and can be thus to assured a better durability to transferred genes (Weiss, et al., 2010, pp. 657-658). Even successful athletes can play a role in it. Research conducted on elite cyclists pointed out the connection between success in the Tour de France and physical attractiveness (Postma, 2014). Among the students were observed differences in sexual activity between a group of athletes and non-athletes people. It was higher in athletes (Wetherill & Fromme, 2007; Habel, Dittus, De Rosa, Chung, & Kerndt, 2001).

Methods

For the realization of my research, was ensured the anonymity of the respondents in a selected method questionnaire. The used anonymous questionnaire is divided into two parts. First part consist of 19 open and close questions where we ask their

subjective perception on the impact of sexual activity and potential changes in the sexual behavior during an increase of the training and competition loads. The second part of the questionnaire is made up to 41 opened, closed questions, and it issues a scale related to the sexual behavior in combat athletes. The research sample includes 67 actively of competing martial arts athletes from 18 years and older. The respondents were represented from various levels of competition. In total 67% of the respondents competed at the national level and above, 23% of the then at the international level. In terms of age distribution were represented by athletes ranging between 18-61 years. Average age after is 25.9 years, mostly represented then by 24 years old (SD = 5.2). In terms of experience, competitive sport, the respondents were asked about the duration of performance in the sport. The average length of performance in the chosen sport is 8.1 years.

Results

Regardless of whether they perceive changes in their performance in connection with sexual activity, 34% of the respondents adjust their sexual habits in this period. While 30% of these respondents do not feel any corresponding changes to their sporting performance in relation to their sexual activity. An interesting result is that 80% of the respondents, who regulate their sexual activity, were competing at national and higher level, where you can assume significantly higher performance requirements. In questions regarding physical sport performance showed that a 47% of the respondents feel some effects. A selected group of respondents 20% perceive positive or rather positive changes. Only 14% were perceived negative or rather negative changes. A 14%, of respondents were not able to determine what if changes in terms were felt or not differently. It turned out that 36% of surveyed athletes perceive changes in the strength. As a negative perception of these influences extents to a 24% of the respondents as positive only 7%. Changes in endurance were perceived by 36%, the number of negative responses was the same as in the power output. Changes in the coordination and sensorimotor ability were perceived by a 29% of the respondents with no significant trend in the type of responses.

Referring to the theoretical knowledge about endocrine secretion during sexual activity presented in this work, I believe that the psychological factors in the sport performance, sexual activity has probably the most pronounced effect. The results identify with this assumption, since the athletes perceive changes in its mental component performance in an 83%. More than half (54%) of the respondents, thus correspond to perceive these changes as “positive” or “somewhat positive”. Negative responses indicated only 15% of the respondents. For motivation, selected athletes assess the impact of sexual activity on their own motivation to sports performance as

positive in a 46% and only a 14% as negative. At the level of before starting stress perceived some changes the 69% of the respondents. Subjectively these changes were evaluated by a selected group of athletes a 41% with varying degrees of positive and only a 7% choose a negative response. I believe, however, that the rate of the before starting stress is influenced by endocrine primarily oxytocin. This would suggest these results. Generally orgasm is related to the overall soothing. The results show that athletes in the selected group usually have sexual activity immediately before exercise, in order to reduce the level of the before starting stress. On the issue of feeling fatigue after sexual activity 58% of the respondents show pronounced fatigue and 20% of the respondents this fatigue usually leads to sleep.

In the research on sexual behavior appeared anticipated trend that martial athletes are sexually active and feel a greater sexual appetite than the average Czech men. All 67 respondents said they had sexual intercourse with a woman. Average researched athletes started having sex at 17 (SD = 1.96) years. Therefore, before the average man in the Czech Rep. in 2008 (17.85 years) (VFN, 2009). Combative sport athletes' investigation carried out that the first intercourse with a casual partner was a 48%, which is only a slightly smaller half. The statutory limit for the first intercourse of 15 years was violated by a 6% of the respondents. The average of the interviewed athletes had sex with 10.6 partners during his lifetime. The average Czech man denounced in 2008 only 9.4 partners. There must also be mention the low average age of the study sample, which is certainly lower than that of a representative sample of the Czech population. The average frequency of sexual intercourse with their partners was 11 (SD = 8.09) in the month. The average Czech man has an average frequency of intercourse about 2 times a week (VFN, 2009). Athletes file masturbate 15.3 (SD = 12.33) times per month. This value is more than double the average of the Czech population in 2008 (7.1 times per month) (VFN, 2009). The 61% of the respondents' uses masturbation pictorial pornography frequently, then sometimes a 31%. The average frequency of sexual discharge (intercourse, masturbation, etc.), 19 (SD = 12.5) times per month. Are about two times more than the average Czech men (Game & Weiss, 2001 p. 53). None interviewed athlete is considered to be gay and each one of them is sure. An interesting result, however, is the representation of bisexuals. Interviewees' respondents indicated this orientation in a 12%. The very concept of bisexual orientation is not yet well defined (Beňová, et al., 2007, p. 11).

Discussion

The problematics in the relation between sexual activity and sports performance affects the absolute majority of athletes. We live in a time of great commercialization of sport, where science is dealing with different variables that enter or affect the

movement during the performance. Nevertheless, I am forced to conclude that the evidence in this matter is inaccurate and incomplete. Measurements referred to this work since 1967 has repeatedly refuted the influence of sexual activity on the performance of the movement. These findings are contrary to the views of a large part of sports. It is often believed that these effects exist. This belief is often applied in practice. Research findings from other disciplines than kinantropology can support the possibility of a significant impact of sexual activity on the sport performance. The results of this study pointed to the fact that the athletes perceive the influences of the sexual activity in their performance, and regulate their sexual activities in connection with the preparation of a competition or the competition itself. Due to the chosen research methods, the respondents were asked about the impact of sexual activity on their aggressiveness as the rate of their own aggression is subjectively difficult-expressible. However, just in aggressiveness it assumes strong influence on sexual abstinence and an elevated level of testosterone. The psychological component performance, where athletes perceived influences of sexual activities are the most current research very incomplete. Bearing in mind that the nature of martial arts whose competitive activity, compiled from non-standard physical activities, which is constantly changing depending on the circumstances (Kurz, 2001, p. 23), assume that the effects of the psyche of an athlete may be significantly reflected in his performance.

The sexual behavior confirmed the link between sport and sexual activity known from research already undertaken see Wetherill & Fromme (2007) and Habel, Dittus, De Rosa, Chung, & Kerndt (2001). The interviewed athletes showed an increased sexual activity, number of sexual partners and a desire. There may also be a link between testosterone levels, attractiveness and sexual activity. With the increasing attractiveness naturally increases the possibility of access to a sexual partner. At the same time, the increased of sexual desire lead to earlier expressions of frustration during abstinence.

Conclusions

Previous studies have engaged the acute influence of in sexual activity on the sport performance, but the results are measured before and after abstinence. Studies show that during the abstinence there is an increases testosterone level. Its level by its nature does not affect the actual sport performance. From the viewpoint of long term increased of testosterone level, there may be an increased anabolic processes and an increase of overall strength. Furthermore, its level can affect the athlete's level of aggression, which can be a decisive factor in combat sports. However, coherent results confirm those indications have not yet been published. There is a large scope for further research which will be approached this issue in a new way and focus more

on the impact of sexual abstinence, rather than the influence of sexual activities on sports performance.

References

Anshel, M. (1981). Effects of sexual activity on athletic performance. Physician and Sportsmedicine(8), pp. 65-68.

Beňová, K., Goga, S., Gjuričová, J., Hromada, J., Kodl, P., Louženský, J., . . . Wintr, J. (2007). *Analýza situace lesbické, gay, bisexuální a transgender menšiny v ČR.* Praha: Úřad vlády ČR.

Bishop, D. (2012, July 23). *Sex before sport: does it affect an athlete's performance?* Retrieved from the conversation: http://theconversation.com/sex-before-sport-does-it-affect-an-athletes-performance-8253

Boone, T., & Gilmore, S. (1995). Effects of sexual intercourse on maximal aerobic power, oxygen pulse, and double product in male sedentary subjects. *Journal of Sports Medicine and Physical Fitness*, pp. 214-217.

Dabbs Jr., J. M., & Mohammed, S. (1992, July). Male and female salivary testosterone concentrations before and after sexual activity. Physiology & Behavior, pp. 195-197.

Exton, M., Krüger, T., Bursch, N., Haake, P., Knapp, W., Schedlowski, M., & Hartmann, U. (2001, November 19). Endocrine response to masturbation-induced orgasm in healthy men following a 3-week sexual abstinence. *World J Urol*, pp. 377-82.

Frappier, J., Toupin, I., Levy, J. J., Aubertin-Leheudre, M., & Karelis, A. D. (2013, October 24). *Energy Expenditure during Sexual Activity in Young Healthy Couples.* doi:10.1371/journal.pone.0079342

Habel, M., Dittus, P., De Rosa, C., Chung, E., & Kerndt, P. (2001, January 01). Daily Participation in Sports and Students' Sexual Activity. *Perspectives On Sexual And Reproductive Health Volume*, pp. 244-250.

Jiang, M., Xin, J., Zou, Q., & Shen, J. (2003, Mar-Apr). A research on the relationship between ejaculation and serum testosterone level in men. *Journal of Zhejiang University SCIENCE*, pp. 236-40.

Johnson, W. R. (1967, August). Muscular performance following coitus. *The journal of sex research*, pp. 247-248.

Kenney, W. L., Wilmore, J. H., & Costill, D. L. (2012). *Physiology of Sport and Exercise.* Champaign: Human Kinetics.

Krüger, T., Haake, P., Chereath, D., Knapp, W., Janssen, O., Exton, M., . . . Hartmann, U. (2003, April 1). Specificity of the neuroendocrine response to orgasm during sexual. *Journal of Endocrinology*, pp. 57-64.

Krügera, T. H., Haakea, P., Hartmannb, U., Schedlowskia, M., & Extona, M. S. (2002, January). Orgasm-induced prolactin secretion: feedback control of sexual drive? *Orgasm-induced prolactin secretion: feedback control of sexual drive?*, pp. 31–44.

Kurz, T. (2001). *Science of Sports Training: How to Plan and Control Training for Peak Performence.* Island Pond: Stadion Publishing Company, Inc.

Magon, N., & Kalra, S. (2011, September). The orgasmic history of oxytocin: Love, lust, and labor. *Indian Journal of Endocrinology and Metabolism*, pp. 156–161.

McGlone, S., & Shrier, I. (2000). Does Sex the Night Before Competition Decrease Performance? *Clinical Journal of Sport Medicine*, 233-234.

Nieto, A. J. (2012, August 10). *Sex before competing: Does it boost athletes' performance?* Retrieved from CNN: http://edition.cnn.com/2012/08/10/health/sex-athletes/

Postma, E. (2014, February). A relationship between attractiveness and performance in professional cyclists. *Biology Letters*.

Pupiš, M., Raković, A., Stanković, D., Kocić, M., & Savanović, V. (2010, June). SEX AND ENDURANCE PERFORMANCE. *International Scientific Journal of Kinesiology*, pp. 21-25.

Robinson, M. (2004). *Pulling Away (After Sex)*. Retrieved from Entelechy journal: http://www.entelechyjournal.com/pulling_away_after_sex1.htm

SayfollahPour, P., Heidary, M., & Mousavi, M. (2003, May). A Psychological Consideration of Sexual Activity Impact upon Sporting Performance: an Overview. *International Journal of Academic Research in Business and Social Sciences*, pp. 672-677.

Suay, F., Salvador, A., González-Bono, E., Sanchís, C., Martínez, M., Martínez-Sanchis, S., . . . Montoro, J. (1999, July). Effects of competition and its outcome on serum testosterone, cortisol and prolactin. *Psychoneuroendocrinology*, pp. 551–566.

Sztajzel, J., Periat, M., Marti, V., & Rutishauser, P. K. (2000, September). Effect of sexual activity on cycle ergometer stress test parameter, on plasmatic testosterone levels and on concentration capacity. *Journal of Sports Medicine and Physical Fitness*, pp. 233-9.

VFN, S. ú. (2009, Duben 1). SEXUÁLNÍ CHOVÁNÍ V ČR. *Prezentace*. Retrieved from http://mep.zverina.cz/files/103-sexualni-chovani-v-cr-srovnani-vy-zkumu-z-let-1993-1998-2003-a-2008.pdf

Weiss, P., & Zvěřina, J. (2001). *Sexuální chování v ČR – situace a trendy.* Praha: Portál s.r.o.

Weiss, P., Brichcín, S., Čepická, B., Čepický, P., Fifková, H., Hanuš, M., . . . Žourková, A. (2010). *Sexuologie.* Praha: Grada Publishing a.s.