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Relationship Between Use of Videogames and Sexual Health in Adult Males

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ABSTRACT

Background: Videogame use is increasingly prevalent in people of all ages, and despite the wide amount of scientific evidence proving a role for electronic entertainment in human health, there is no evidence about the relation between use of videogames and sexual health.

Aim: To investigate the association between use of videogames and male sexual health.

Methods: We administered the two validated questionnaires, the Premature Ejaculation Diagnostic Tool (PEDT) and the International Index of Erectile Function (IIEF-15), to men 18 to 50 years old recruited through social networks and specific websites. In addition to the questionnaires, volunteers were asked to provide information on their gaming habit and lifestyle.

Outcomes: An extended version of the IIEF-15 and PEDT, including data about gaming habits and relevant lifestyles.

Results: From June 18, 2014 through July 31, 2014, 599 men 18 to 50 years old completed the questionnaires. One hundred ninety-nine men reported no sexual activity during the previous 4 weeks; four records were rejected because of inherent errors. The remaining 396 questionnaires were analyzed, with 287 "gamers" (playing >1 hour/day on average) and 109 "non-gamers" providing all the required information. We found a lower prevalence of premature ejaculation in gamers compared with non-gamers (mean PEDT score = 3.57 ± 3.38 vs 4.52 ± 3.7, $P < .05$, respectively). Analysis of the IIEF-15 showed no significant differences between gamers and non-gamers in the domains of erectile function, orgasmic function, and overall satisfaction. Median scores for the sexual desire domain were higher for non-gamers (median score [interquartile range] 9 [8−9] vs 9 [8−10], respectively; $P = .0227$).

Clinical Implications: These results support the correlation between videogame use and male sexual health. Compared with non-gamers, men playing videogames for more than 1 hour/day were less likely to have premature ejaculation but more likely to have decreased sexual desire.

Strengths and Limitations: This is the first study aimed to assess male sexual health in gamers. We identified an association between PEDT and IIEF scores and videogame use; however, these findings require validation through interventional studies. Furthermore, volunteers were recruited through social networks, thus increasing the risk of recruitment bias.

Conclusion: To our knowledge, this is the first observational study investigating the link between electronic entertainment and male sexuality, specifically for ejaculatory response and sexual desire. **Sansone A, Sansone M, Proietti M, et al. Relationship Between Use of Videogames and Sexual Health in Adult Males. J Sex Med 2017;XX:XXX−XXX.**

Key Words: Male Sexuality; Premature Ejaculation; Sexual Desire; Videogames; Erectile Dysfunction

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INTRODUCTION

The history of videogames starts at the beginning of the 1950s, when academic researchers made the first steps in the development of artificial intelligence; since then, the world of videogames has known periods of growth and decline. Currently, thanks to the widespread availability of computers and portable devices, videogames are no longer a niche product. Smartphones and browser games have brought people "beyond any suspicion" to the world of videogames, including adults, women, and elderly people.

Recently, the introduction of videogames based on motion control and virtual reality has rekindled the interest of researchers on the effects of gaming on human health.

During the first half of the 1980s, when electronic entertainment (EE) was still in its prime, the first researchers in this field hypothesized a possible effect of games on human health[1–3]; in later years, the literature on this subject has greatly expanded, with an ever-increasing number of studies.

Based on this consolidated knowledge, we hypothesized a possible role for use of videogames in sexuality and male sexuality in particular. A very small part of the scientific literature has investigated the relation between EE and male sexual functioning,[4–7] despite several implications that videogames have on general health. Sexual functioning is regulated by many psychobiological factors and it is important to consider the social stimuli that could affect sexuality. For example, sexual desire is modulated by psychological factors, such as mood and anxiety states, and neurohormonal factors, such as dopamine, prolactin, and testosterone.[8] At the same time, erective and ejaculatory abilities could be conditioned by many psychological problems, such as anxiety and alexithymia levels, and by medical conditions, such as diabetes, hypertension, dyslipidemia, and obesity.[9–11] Also, relational and social aspects are often implicated as maintenance or etiologic factors in erectile difficulties and premature ejaculation (PE).[12]

AIMS

Despite the multifactorial etiology of male sexual problems, sexual functioning in young men using videogames has not been adequately investigated. Hence, to verify a possible relation between gaming and sexual function, we assessed sexual functioning in men using and not using videogames through validated questionnaires.

METHODS

Assessment

Sexual function was assessed with the Italian versions of the International Index of Erectile Function (IIEF-15) and the Premature Ejaculation Diagnostic Tool (PEDT).

Questions aimed at investigating marital status, age, and habits including videogame use were included. The questions and possible mandatory answers were as follows:

- How old are you? (numeric variable)
- What is your marital status? (single, in a stable relationship, in a casual relationship)
- Do you play games on your computer, phone, tablet, or gaming console? On average, how many hours do you spend playing games each day? (I never play games, I play <1 hour/day, 1–2 hours/day, 2–4 hours/day, 4–6 hours/day, or >6 hours/day)
- Did you have sexual intercourse during the past 4 weeks? (yes or no; answering "no" precluded the possibility of completing the PEDT and IIEF-15)

The IIEF-15 was designed in 1997,[13] has been translated into many languages, and is considered a fundamental diagnostic tool for the evaluation of erectile dysfunction. The IIEF consists of 15 questions (items) that assess all domains of male sexual dysfunction: questions 1, 2, 3, 4, 5, and 15 investigate erectile function; questions 9 and 10 investigate orgasmic function; questions 11 and 12 investigate sexual desire; questions 6, 7, and 8 investigate intercourse satisfaction; and questions 13 and 14 investigate overall satisfaction. However, the researchers recognized that the only intended use for the IIEF-15 is evaluation of erectile function (sensitivity = 0.97; specificity = 0.88),[14] because the questionnaire does not allow the distinction between psychological and organic forms of dysfunction.[15] According to standard definitions, the presence or absence of dysfunction for every domain also is described.

The PEDT is a similar tool, published in 2007 after its validation in 2006,[16] and consists of five questions aimed at assessing the presence and severity of PE. The PEDT has good sensitivity (89.3%) but low specificity (50.5%)[17]; furthermore, as described for the IIEF, the questionnaire does not allow the distinction between primary and secondary disorders and does not allow the identification of acquired vs lifelong forms of PE.

Sample Recruitment

The questionnaire was indirectly administered: a link to the actual web address was published on our Facebook pages and Twitter streams and on Reddit, "an entertainment, social networking, and news website" in the /r/Italy subreddit. Some people asked permission to share the link to the page, thus publicizing the questionnaire.

Once completed, the questionnaire was uploaded to an electronic survey through Google Forms (Google Inc, Mountain View, CA, USA); this allowed us to gather data quickly without printing paper questionnaires to the interviewed people while maintaining anonymity. Only men 18 to 50 years old were allowed to complete the questionnaire. After providing a detailed description of the study protocol, participants were required to provide their informed consent to allow us to use their personal information and completed the questionnaires for the study. The participants were aware that their participation in the study was voluntary. The university ethics committee (Umberto I Policlinico di Roma, Rome, Italy) approved the study protocol.