

Track: 4. Basic Science

Cleaning Procedures of Genital Measures in Sexlabs: Current Practices and Emerging Challenges

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Introduction & Objectives: Sexual psychophysiology is a scientific field which has vastly contributed to the understanding of the human sexual response. Genital response measurements have been consistently assessed in laboratory studies across the world, wherein the most common measures are vaginal photoplethysmography for women and penile circumferential response for men. These instruments require direct genital contact or insertion, and thus hygiene procedures have been carefully practised allowing the reuse of the devices while minimizing the chance of transmitting infections. Current guidelines suggest high-level disinfection for such procedures, and researchers commonly use glutaraldehyde (e.g. Cidex Plus) and orthophthalaldehyde (e.g. Cidex OPA) formulations. Because such disinfectants have not shown clear evidence of killing Human Papillomavirus (HPV), recommendations include a pre-wash with sodium dodecyl sulfate (SDS) based on studies reporting SDS to kill both HPV and HIV. However, recent studies on microbiology have suggested new methodologies on how to deal with HPV, and new disinfection protocols have been introduced in the medical field (e.g. low-temperature gas plasma sterilizers). The present work intends to discuss current sterilization protocols in light of the new findings regarding HPV resistance

and raise awareness about the possibility of adopting new guidelines that allow for more effective use and disinfection/sterilization of genital devices in Sexology laboratories.

Conclusion & Recommendations: Vaginal photoplethysmographs as internal probes are classified as semi-critical devices and, hence, their cleaning procedures should take into account HPV susceptibility to disinfection. Gas plasma technology (e.g. STERRAD), which already has been utilized in some SexLabs in Europe, is discussed as an optimized solution. Advantages regarding time consumption and resources are also addressed. When unable to use high technology sterilisers, condom protective covers may be recommended, considering preliminary evidence showing that condoms do not significantly impact photoplethysmography data.

Keywords: Genital response devices, Disinfection, Human Papillomavirus (HPV)

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Processing of Pictorial Stimuli with and without Sexual Content in Individuals with High Neuroticism: An ERP Study

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Introduction & Objectives: Our cognitive system relies on emotional and attentional mechanisms in order to select the important information from the environment and ignore or inhibit distracting stimuli.

Such ability is often influenced by individual / personality traits and neuroticism has been associated with a particular tendency for distraction. Moreover, neuroticism has been proposed as a vulnerability factor for

sexual dysfunction. This relationship between neuroticism and sexual functioning may be, at least in part, explained by attentional mechanisms. This investigation aimed to explore the neurophysiological correlates of attentional processes during the perception of sexual and non-sexual images in individuals with high and low neuroticism.

Method(s) & Sample: 58 participants were selected on the basis of their score in the neuroticism scale of the NEO-PI-R, 30 scoring low and 28 scoring high in the neuroticism scale. Event-related potentials (ERPs) were recorded during a modified oddball paradigm in which three different categories of stimuli (sexual; non-sexual positive; non-sexual negative) varying in the arousal level (high and low arousal) were presented.

Results: Results indicated neuroticism to impact both early and late neurophysiological components of attentional processing of sexual stimuli. Female participants with high neuroticism showed a delayed P1 peak during the perception of highly arousing sexual images (i.e. sexually explicit) when compared with low arousing sexual images (i.e. romantic). Moreover, participants with high neuroticism, both male and female,

showed enhanced P3 amplitudes for highly arousing images (with and without sexual content), when compared with participants with low neuroticism.

Conclusion & Recommendations: These results help to clarify the relationship between neuroticism and sexual response, namely by showing this personality trait to impact both early/automatic and later/controlled phases of information processing of sexual stimuli. More studies, namely with clinical populations, are needed to determine the impact of attentional mechanisms on individual vulnerability towards sexual difficulties.

Keywords: Event-related potentials, Personality, Perception of sexual images

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Endoplasmic Reticulum Stress and MKS Inducing Modulation in Varicocele Induced Apoptosis in Sprague–Dawley Rats

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Introduction & Objectives: MKS is a natural Chinese medicinal herb extracts of pure compounds: *Morinda officinalis* How, *Cuscuta chinensis* Lamark and outer scales of *Allium cepa* L. Varicocele is recognized as the leading cause of male infertility and is present in approximately 15% to 20% of male population. This study is to investigate the pathophysiology of varicocele and efficacy of MKS in infertility and testosterone of rat varicocele model.

Method(s) & Sample: Four groups were included: control (CTR), MKS group (mks 200 mg/kg/day), Varicocele group (VC), VC+MKS 200 group (mks 200 mg/kg/day). The rats were administered 200 mg/kg MKS or vehicle once daily for 28 days. Serum was

assayed for hormone concentrations. Tissues were subjected to semen analysis, histopathological changes, interleukin-6, tumor necrosis factor- α , oxidative stress markers, endoplasmic reticulum (ER) stress markers and apoptosis markers by western blot.

Results: The sperm motility and counts, spermatogenic cell density, testosterone, testicular SOD, catalase, GPx improved significantly in the VC+MKS 200 group compared with the VC group. Serum LH and FSH level, testicular interleukin-6, TNF- α , ROS/RNS, MDA level, and apoptotic index decreased significantly in the VC+MKS 200 groups compared with the VC group. MKS administration to VC rats showed significantly decrease in ER-response protein expression