

ABSTRACT

Tactile stimulation, an important physiological component of the sexual experience, has the ability to influence the body's representation in the brain. The sensory homunculus proposed by Penfield and Rasmussen illustrates the way in which the body is represented within the somatosensory cortex. Due to neuroplasticity, this map has the ability to adapt to differing levels of tactile input. How sexual arousal affects, or is represented by, the sensory homunculus is unknown. The study sought to identify: which body areas, rated by participants, are high in their ability to facilitate sexual arousal; to measure the intensity of the different body areas; and to identify whether the areas of greatest intensity lie adjacent cortically to the genital area thus supporting the hypothesised neuroplasticity of brain functioning. The current study was conducted through an online survey which was completed by volunteers with access to university portal sites, social networking sites and referrals. Sampling was convenient and comprised 208 heterosexual males. Data were treated quantitatively through descriptive (frequencies) and inferential (correlations, rotated factor analysis) statistics. The research findings provide support for the sensory homunculus mapping and suggest that there are three areas (genital, facial and trunk) that facilitate sexual arousal. The ability to facilitate sexual arousal is proposed to lie in the close proximity that these areas have within the three erogenous centres (cortically) as well as co-activation of body areas through perceived erogeneity and physiological proximity. This has important implications for sex therapy for individuals in which feeling in the genital area is lacking.

Keywords: tactile stimulation, sexual arousal, erogenous zones, cortical organisation, sensory homunculus, neuroplasticity