International Journal on Science and Technology (IJSAT)
E-ISSN: 2229-7677 ● Website: www.ijsat.org ● Email: editor@ijsat.org

Silent Calls, Loud Minds: A Literature Review on Ringxiety

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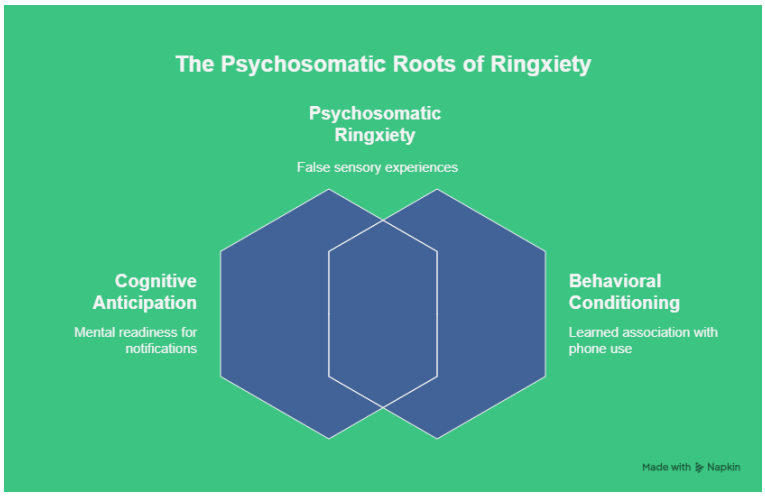
Abstract

Mobile technology has become an increasingly pervasive factor in our daily lives. The false perception of phone vibrations and notifications is called Phantom Vibration Syndrome or Ringxiety. Psychologist Dr David Laramie first coined it in 2007 after observing the cognitive anticipation, behavioural conditioning, and sensory misfiring that this syndrome brings. This paper aims to consolidate twenty years of studies in this subject, including its patterns, basis psychological implications on Ringxiety. This is a review to highlight the knowledge gaps in theory and practical research, which will help future researchers who are interested in exploring digital sensory misperception and mobile-induced anxieties.



Index Terms

Ringxiety, Phantom Vibration Syndrome (PVS), Notification Anxiety, Mobile Phone Dependence, Sensory Misperception, Behavioral Conditioning, Neural Priming, Dr David Laramie

1. Introduction

In an age of relentless connectivity, boundaries between digital alerts and psychological anticipation have increasingly become blurred. Perhaps most interesting among the phenomena born of this interaction is Ringxiety — the false belief that one's cell phone is ringing or vibrating without having been notified. While typically linked to a behavioural quirk, evidence shows associations with more basic psychological processes, such as anxiety, attentional bias, and compulsive use of digital technology.

In this paper we will look at Ringxiety and its development from neurological, behavioural, and sociocultural points of view.

2. Literature Survey

2.1 Historical Evolution of the Concept

Although Dr David Larami popularised the term Ringxiety in 2007, it was originally conceptualised by Robert D. Jones in 2003, who observed the phantom vibration experiences. Laramie, in his study, added the heightened emotional dependence on mobile phones. This made the concept not only a learned response, but a psychosomatic experience, like a muscle contraction in our body.

2.2 Cognitive and Behavioural Theories

Cognitive psychologists have hypothesized that Ringxiety is caused by an interaction of sensory gating deficits and learned anticipatory responses. Lin et al. (2013) found that individuals who use their phones a lot have compromised filtering of irrelevant stimuli, i.e., a breakdown of the brain's sensory gating abilities. Other hypotheses suggest that anticipation-based hallucinations could be an outcome of behavioral priming combined with vigilance amplification. Neural patterning also comes into play, as repeated digital engagement implants false sensory expectation into cognitive activity.

Figure 1: Conceptual Framework — Predictive Model for Ringxiety

2.3 Emotional Dependence and Sociocultural Factors

Ringxiety has been assessed from the point of view of emotional attachment and digital dependence. It overlaps with nomophobia, identified by Drouin et al. (2012), because of similar anticipatory anxiety and compulsive checking behaviours in occur in both. Sensory misinterpretations are more common in people with anxious attachment styles in a relationship dynamic (Lee et al., 2014). In terms of misperception, auditory stimuli near 100 Hz have been observed to be more misperceived. This provides a physiological explanation of sound-triggered phantom alerts (ResearchGate, 2019).

2.4 Demographic Correlates

Demographic patterns reveal that Ringxiety is most commonly reported in young adults, especially 18–29 years old (Wiederhold, 2021). Gender-specific data also reveal that females tend to be emotionally attached to cell phones (Krishnan et al., 2022). While income and occupational stress are also involved, most empirical studies to date have not investigated socio-economic predictors systematically.

2.5 Timeline of Research On Ringxiety

The academic study of Ringxiety has evolved over the past two decades, with major scholarly contributions, reflecting growing interest in its sociocultural, neurological, and psychological dimensions. David Laramie, a psychologist, originally coined the term "Ringxiety" in 2007 based on preliminary anecdotal accounts of phantom mobile phone signals. Initial studies between 2010 and 2013 laid the groundwork for understanding the phenomenon by linking it to anxiety, classical conditioning, and sensory gating dysfunctions (Lin et al., 2013).

By 2016, the research had progressed to study the use of haptic feedback and the effects of novel wearable technologies on sensory misperceptions. By 2019, the auditory priming studies started to explain brain processing of auditory signals that might simulate phone notifications. Demographic profiling and personality-associated tendencies were in question around 2021, whereas by 2023, neurocognitive research based on EEG and fMRI procedures started investigating the cortical reactions concerned with routine digital behaviors.

This trajectory is the evolution of an emerging field — one that is moving from descriptive to biologically based models, with profound implications for behavioral science, human-computer interaction, and mental health.

Figure 2: Timeline — Evolution of Ringxiety Research

1. Conclusion

Ringxiety is a novel phenomenon in the study of human-technology interaction. Its neurological, psychological, and behavioral bases suggest that it is not a fleeting phenomenon but a reflection of our growing complex relationship with digital technologies. While there are robust theoretical models presented by current research, there are glaring gaps in the domains of longitudinal impact, cross-cultural diversity, and neurobiological markers. This review highlights the need for more advanced research to further clarify Ringxiety as a psychosomatic symptom and as a behavioral phenomenon typical of the digital era.

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