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Self-injurious behavior in human and non-human primates

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Abstract

A review of the literature on human and non-human animal self-injury reveals that there has been little cross-fertilization of ideas between these two domains. Each body of research offers particular strengths, which, if combined, may more keenly inform clinicians and researchers alike about the nature of human self-injury. While research on self-injury among humans has necessarily relied upon correlational designs, researchers who study self-injury among non-human primates have more tightly controlled experimental methods at their disposal. Experimental research allows researchers and clinicians to address issues of causality in ways that are not possible with correlational designs. Despite the difficulties of drawing inferences from different species, a review of the experimental data on non-human primate self-injury may give researchers fresh insights into the elusive nature of human self-injury. This article highlights the research and theoretical material pertaining self-injury and identifies ways in which animal models of self-injury might inform research and clinical understanding of human self-injury.

Keywords: Self-injury; Self-mutilation; Self-harm

Contents

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1. Introduction

Interest in the paradox of human self-injury has spurred the publication of many articles about its phenomenology, etiology, and functions. While there appears to be no lack of interest in the subject, no cohesive causal model has emerged from the research. Readers seeking direction for conceptualizing self-injury are left to sift through the voluminous theoretical material. Due to the sensitive nature of the subject, most research that has been published has been correlational in design. Reliance on such methods has limited researchers' abilities to put the various theories to rigorous scientific scrutiny. In addition, there is only minimal consideration of how non-human animal models of self-injury can inform us about human self-injury.

In contrast, published material addressing self-injury in animals is almost entirely empirical. While our lack of ability to accurately infer the internal states of animals prevents us from exploring the functions self-injury serves for animals in the same ways that we can with humans, it has led researchers to rely upon experimental means of exploring the phenomenon. The experimental nature of research on self-injury with animal subjects has allowed scientists to begin to address the issue of causality. In addition, clever use of physiological measures has allowed researchers to begin looking beyond issues of causality, and into the possible functional role of self-injury.

The purpose of this paper is to place the human and non-human animal self-injury literatures side by side to determine the extent to which findings in one area might inform theory in the other. Material will be organized into several sections, first a review of the literature pertaining to human self-injury, second a review of the literature dealing with animal models of self-injury, and lastly the similarities and differences between these models.

2. Human self-injury

While much of the literature focuses on self-injurious behavior, (SIB) within the context of a specific diagnosis, this article will adopt an alternative perspective. Self-injury will not be seen as a symptom of a particular group of disorders, but rather, a maladaptive coping mechanism aimed at regulating affect that may be found within the bounds of any psychological disorder as well as the general population.

A look at the literature on human SIB reveals several problems including an almost exclusive focus on clinical samples, disagreement on the definition and categorization of self-injury, and the widespread popularity of theories that do not account for the development of SIB outside of a context of trauma.

2.1. Defining and classifying self-injurious behavior

Researchers have attempted to define self-injurious behavior (SIB) in a variety of ways. Currently, researchers focus on two aspects of self-injury when making categorizations; severity (Favazza, 1989) and the qualitative nature of the self-injury; such as frequency and timing (Favazza & Simeon, 1995). Favazza (1989) classifies the severity of self-injurious behavior into two categories; moderate and severe. Moderate self-injury is defined by Favazza (1989), as, "skin cutting and burning, self-hitting, scratching, interfering with the healing of wounds, hair pulling and bone breaking." Severe self-injury is characterized by low-frequency highly destructive episode(s) that usually occur within the context of psychosis (Favazza, 1989).

Other researchers have focused on the distinction between direct and indirect forms of self-injury, noting that behaviors not commonly thought of as self-injury, such as drinking too much alcohol and engaging in risky behaviors, may also constitute self-injurious behavior (Ross & McKay, 1979).

For the purposes of this article, the definition of self-injury will include only direct forms of self-injury. In addition, direct forms of self-injury will be limited to those behaviors that Favazza (1989) categorized as moderate. In keeping with Favazza's (1996) description of SIB, this manuscript also makes a distinction between pathological SIB and self-injury incurred as part of a cultural ritual or socially accepted body modification, such as tattooing, and will only refer to the former. Lastly, to be considered self-injury, the behaviors must be non-lethal in intent.