# PRIMARY CARE DIABETES

## Healer's high

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### **Abstract**

We explore the concept of healer's high, a phenomenon similar to runner's high. We define healer's high as a psycho-endocrine response of intense happiness and bliss, accompanied by a feeling of enhanced energy, experienced by health care professionals when they heal or help someone. We describe the endocrinology that underlies healer's high, and posit that this phenomenon may be used to enhance professional satisfaction, and mitigate compassion fatigue and burnout.

**Keyword:**  $\beta$ -endorphins, endocannabinoids, holistic endocrinology, opioids, person-centred care, psychosocial aspects.

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#### Introduction

The term'runner's high' has been in vogue for half a century now.¹ Defined as a euphoric state resulting from long distance running,² it was initially thought to be a placebo response to personal expectations, or a sense of achievement. Other factors such as cerebral dominance, relaxation, environmental influences, time and/or distance of running, and absence of personal problems were suggested as contributory factors.³

In recent years, neuroendocrine theories have been proposed to explain the concept of runner's high. These include exercise-induced endorphin release, and activation of the endocannabinoid system.

#### Healer's high

We have noticed frequent descriptions of a similar "high", or state of intense happiness and bliss, in health care professionals (HCPs) (personal communication). HCPs, by nature, are meant to help and heal. Success in doing so, and in achieving happiness in the person seeking assistance, creates a feeling of euphoria and energy in the HCP as well.

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**Table:** AEIOU approach to harnessing Healer's high as a tool for health.

- A Acknowledge and appreciate the existence of healer's high (HH)
- **E** Experience and enjoy episodes of HH
- I Introspect and identify ways of enhancing the frequency and intensity of HH
- **0** Optimize opportunities to experience meaningful HH; do not go overboard
- **U** Understand the unique traits that you have, and utilize them to upgrade yourself as a healer

Happiness thus becomes a communicable or contagious state.<sup>4</sup> This emotion is associated with a sense of personal and professional achievement, and allows one to tackle the compassion fatigue and/or burnout that may be experienced at other times during one's career.

#### **Definition**

We define "healer's high" as a psycho-endocrine response of intense happiness and bliss, accompanied by a feeling of enhanced energy, experienced by health care professionals when they heal or help someone.

## **Etiological factors**

HCPs may experience healer's high frequently or infrequently. The setting may be clinical, e.g., clinching a difficult diagnosis, carrying out a challenging procedure, or saving the life of a patient with poor prognosis. Some examples include the successful management of anaphylaxis due to some drugs / insect bite, severe hypoglycaemia, status asthmaticus, status epilepticus, and reversal of life threatening arrythmias with defibrillation. It may also be in the public health domain, such as accomplishing a behavioural change in a community, or successfully advocating for a health-related issue. A similar healer's high may be experienced by HCPs during other professional activities such as public speaking and medical writing.

## **Endocrine Factors**

Two endocrine systems may contribute to healer's high: the endogenous opioid system, and the endocannabinoid system. The main endogenous opioid hormone is  $\beta$ -endorphin.  $\beta$ -endorphin is produced in the pituitary gland from proopiomelanocortin (POMC), which is the precursor of adrenocorticotropic hormone (ACTH) and melanocyte-stimulating hormones (MSH) as well. It is found in both the pituitary and hypothalamus gland. At a local level,  $\beta$ -endorphin acts on regions of the brain such as the amygdale, to influence release of other neurotransmitters. At an endocrine level, it impacts the peripheral nervous

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2115 S. Kalra, S.K. Verma, N. Kapoor

system, and inhibits the sensation of pain.

Other hormones from the endocannabinoid system, such as anandamide (anand means bliss in Sanskrit)<sup>6</sup> may also be involved in healer's high. No difference in serotonin concentration has been reported in persons with runner's high.<sup>7</sup> Studies on the transcriptional signature of athletes with runner's high have demonstrated miRNA target enrichment or opioid pathways with loss of sense of time,<sup>7</sup> as well as an increase in mitogen-activated protein kinase 11 (MAPK 11). Position emission tomography (PET) ligand activation has revealed activation of the frontolimbic area of the brain with opioid stimulation.<sup>8</sup>

## **Clinical Utility**

The concept of healer's high has potential for use as a clinical tool, as well as a desired target. Explaining the phenomenon, and its endocrine basis, to HCPs can trigger self-realization and autognosis (self-diagnosis) in them. Acknowledging and appreciating the existence of healer's high, and factors which enhance it, can promote a search for meaningful professional growth and evolution.

Building up on healer's high may serve as a bulwark, or defense mechanism, against negative emotions such as compassion fatigue and burnout, that are commonly encountered by HCPs.<sup>9</sup> It can also help in coping with stress. Coaching and counselling can help in facilitating this journey of self –discovery, and can contribute to appropriate usage of healer's high as a therapeutic tool. Healer's high can be extrapolated to helper's high, and persons living with chronic disease can be encouraged to help others through peer support programmes.

At a personal level, we have noted that accomplishment of clinical, academic and public health goals by our patients, students and mentees helps us experience healer's high. Once we realized the existence of this phenomenon, we have been able to structure our professional lives so as to gain this energetic feeling more frequently, and more efficiently. This, in turn, has helped us improve our productivity, as well as professional satisfaction.

Sharing this "high" with readers, through this opinion piece, is another source of happiness. We hope that healer's high becomes an integral, and ongoing, part of all our lives.

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