BRIEF COMMUNICATION

HUNGER (Hunger Gradation Evaluation and Resolution): The Basis of Obesity Care

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ABSTRACT

This communication describes hunger awareness training as a means of managing appetite, optimizing nutritional intake, and improving obesity-related outcomes. The HUNGER (Hunger Gradation Evaluation and Resolution) games use the endocrine, nervous (sensory, autonomic, and motor), and psycho-cognitive symptoms and signals of hunger to help control unnecessary food intake. The model lists three types of hunger - homeostatic, habitual, and hedonistic, as opposed to the conventional binary classification of homeostatic and hedonistic cues. Habitual hunger can be defined as eating due to pre-set habits, activated by routines of time, place of company, without either physiological need or pleasure. Hunger training stimulates introspection, facilitates self-management of disease, and promotes patient provider communication. It can be customized according to the needs of the person living with obesity, their caregivers, and the health care system. Further validation of the module is required to utilize it fully.

Keywords: Behavioral therapy, hunger, obesity, overweight, psychological therapy, psychosocial aspects

Obesity is a chronic neuroendocrine disorder that is managed through a multifaceted, comprehensive approach. This includes both pharmacological and nonpharmacological therapies. Intensive behavioral therapy and medical nutrition intervention are first-line treatment, which are relevant to all persons living with obesity[1].

One of the major reasons for weight gain is disordered energy intake, caused by consumption unnecessary calories. This has been explained by the concept of homeostatic and hedonistic hunger. Understanding the physiology of hunger (both satiety and appetite)[2] helps one counsel the affected individual, and plan therapy, in an appropriate manner.

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HUNGER AWARENESS TRAINING

We suggest a hunger awareness training program, that we term HUNGER (Hunger Gradation Evaluation and Resolution) games. We explain the physiology of appetite, highlighting the endocrine, nervous (sensory, autonomic, and motor), and psycho-cognitive symptoms and signals of hunger. The feeling of "wanting to eat or drink" is classified as homeostatic, habitual, and hedonistic hunger, allowing individuals to understand why they consume food or beverages[3]. Our model lists three types of hunger, as opposed to the conventional binary classification of homeostatic and hedonistic cues. We define habitual hunger as eating due to pre-set habits, activated by routines of time, place of company, without either physiological need or pleasure.

The accompanying Box shows the components of HUNGER training, listed in an alliteral HUNGER hierarchy. Highlighting physiology, understanding neuroendocrine signals of homeostatic, habitual, and hedonistic hunger and noting personal likes and dislikes, allow one to gently appreciate cues and influences of appetite. This is turn, facilitates exploration of personal strengths, enhancement of resilience, and evolution of fortitude.

ADVANTAGES

Hunger training stimulates attendees to introspect regarding their attitudes, beliefs, and choices (ABC) and

Box: The Concept of HUNGER Training – HUNGER Mnemonic

Highlight

- The physiology of
  - Appetite digestion and absorption
  - Weight balance
- The 3D (doer, deed, and destination) concept
- The five appetizing senses
  - Sight, taste, smell, touch, and sound
  - External and internal ecological balance

Understand

- Autonomic signals of homeostatic hunger
  - Adrenergic
  - Neuroglycopenic
  - Glucagonergic
- Psycho-cognitive signals of hedonistic hunger
  - Psychological
  - Neurocognitive
  - Sociocultural
- Subliminal signals of habitual hunger
  - The Clock
  - The Company/Companionship
  - The Culture

Note Noteworthy

- Motivating and demotivating factors
  - Intrinsic
  - Extrinsic
  - Food stimuli and behavior (FSB) related
    - Likes and dislikes
    - Comfort FSB
    - Anorexigenic FSB

Gently Appreciate

- Internal influences
  - Past experiences
  - Present status
  - Proposed plans
- External influences
  - Place/Ambience
  - Person/Company
  - Pace/Point of time

Explore Strengths and Shortcomings

- Internal
  - Vocabulary (baro-linguistic programming)
  - Beliefs (cognitive therapy)
- External
  - Social (social modulation, baro-buddies)
  - Environmental (environmental modification)

Review and Build Resilience

- Self-learning and introspection
- Roadblocks and solutions
- Scope for improvement

work towards optimizing them. It facilitates recognition and respect of homeostatic cues, while resolving the remora of unhealthy habitual and hedonistic stimuli. Healthier choices culminate in healthier outcomes, including better weight management[4].

Our hunger training module is flexible. It can be delivered as an integral part of obesity-related health care conversations, or as a formal program. It can be offered in groups, on a one-to-one basis, physically as well as virtually, in required duration and frequency. The framework helps not only the person living with obesity, but their caregivers, and the health care team as well. It contributes to an enhanced feeling of well-being and can be correlated with a diverse spectrum of activities, including hypoglycemia awareness, yoga, and meditation.

Hunger training creates a sense of partnership, by demonstrating the "human" feelings of weight management. Understanding these feelings fosters a sense of bonding, and improves teamwork. Persons feel listened to, and respected, when their symptoms are explored, "exposed", and elucidated. This improves two-way conversation, which is the bedrock of shared decision-making person-centered care[5,6]. It also includes social and cultural aspects of obesity management, thus reinforcing the need for social awareness, social activation, and social advancement.

PRAGMATIC APPROACH

Hunger training can be customized according to the needs of the person living with obesity, their caregivers, and the health care system. A nonaggressive Goldilocks approach should be followed. Participants should be kept in the "productive zone", ensuring avoidance of information overload (the preclusive or pushy zone) as well as too little motivation (the placid zone). We propose further validation of the Hunger training module, through clinical practice and research, in different languages and health care settings. This will maximize the utility of this tool in obesity management.

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