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# International Journal of Home Science

# To study on relationship between diet and hormones to impact on patient

## Pragya Tiwari and Dt. Sarita Iraj

#### Abstract

To study on the effect of the relationship between diet and hormones was study on the basis of impact of hormones and diet. The purpose this study was aware and assessment the nutritional status of the people One approach to food can affect the production and secretion of hormones by direct actions on the gut, by nervous reflexes, through changes in the concentration of various metabolites in the blood, or secondary to changes in circulating gut hormone levels. Not only is the composition of the diet important but also its texture, quantity and duration. GIP and insulin are used as examples of hormones whose production and secretion are diet-dependent. Their possible involvement in the pathogenesis of obesity and non-insulin-dependent (type II) diabetes is discussed. Above shows the table that maximum (8%) respondent were Yes, whereas minimum (91%) respondent No.

Keywords: Diet and hormones, production and secretion, diet dependent, pathogenesis

#### Introduction

Specific nutrients, dietary patterns, and overall nutrition may play either beneficial or detrimental roles in hormonal balance. Various nutrition intake patterns, from fasting to excess calories, as well as foods with a higher glycemic load, are known to impact circulating levels of certain hormones. For example, thyroid hormone regulation is influenced by the state of the body, from fed to starved, <sup>[1]</sup> and adequate intake and availability of the nutrients selenium, iodine, and iron contribute to healthy levels and functioning of thyroid hormones. A growing body of evidence suggests an alternative perspective. That is, circulating substrates derived from food have specific direct and indirect actions to activate receptors and signaling pathways, in addition to providing fuel and essential micronutrients. Ultimately food can be considered as a cocktail of "hormones." A hormone is a regulatory compound produced in one organ that is transported in blood to stimulate or inhibit specific cells in another part of the body. Hormones exert their effects on target tissues by acting on cell-surface receptors to alter activity through intracellular signaling cascades or via nuclear receptors to regulate gene transcription. Although food is not produced in the body, its components travel through the blood, and nutrient substrates can act as signaling molecules by activating cell-surface or nuclear receptors. fatty acids are not the only direct source of "hormones" in our food; certain amino acids can also activate signaling pathways. The most-studied are the branched-chain amino acids including leucine, which activates the mammalian target of rapamycin pathway. mTOR is a serine-threonine kinase that regulates cell-cycle progression, growth, and insulin action Leucine directly activates the mTOR pathway in the central nervous system to reduce food intake and body weight. Collaborators G. et al., (2007)<sup>[3]</sup> According to elevated BMI is a risk factor for cardiovascular disease, diabetes, kidney disease and some cancers, as well as infertility. Its negative effects on reproductive function are thought to be primarily via endocrine mechanisms. Newsholme P. et al., (2014)<sup>[4]</sup> According to the beta cells respond to small monomeric metabolites such a monosaccharides, L-amino acids and ketone bodies. Yabut J.M., et al., (2019) [6] To studied on It is becoming clear that hormones, in particular peptide hormones, are critical components relaying the systemic homeostatic responses to variations in dietary protein intake.

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#### Material and Method

To study entitled "To study on relationship between diet and hormones to impact on patient" was conducted by using the following methodology described in this chapter. The details of material used, procedure followed and techniques adopted during the present investigation have been elaborated in this chapter.

**Research design:** The area of Sultanpur was purposively selected because study has been easily accessible for the researchers for collection data.

#### Selection of area

Sultanpur will be selected for primary data.

#### Selection of sample size

Total 60 respondents will be selected for the study purpose.

**Method of collection of data:** Survey method will be adopted in order to collection of data from the selection respondent with the help of the survey with questionnaire schedule. The schedule will include aspect which led to the fulfilment of the objective of this study. Schedule will include the following.

**Statistical analysis:** The data obtained from various parameters will be analysis by appropriate statistical method.

#### **Result and Discussion**

The empirical result and discussion have been presented in this chapter for t purpose of convenience. The collected data were categorized, analysis, tabulated and per the objective of study.

### **Result and Discussion**

Table 1: Distribution of respondent on the basis of their Hormones.

Hormones	Frequency N=60	Percentage (100%)
Yes	42	70
No	18	30
Total	60	100

Above shows the table that (70%) respondent were 42 yes whereas (30%) respondent were 18 no.



Fig 1: Distribution of respondent on the basis of their hormones.

 Table 2: Distribution of respondent on the basis of their balanced diet.

Diet	Frequency N=60	Percentage (100%)
Yes	20	33
No	40	66
Total	60	100

Above shows the table that (33%) respondent were 20 yes whereas (66%) respondent were 40 no.



Fig 2: Distribution of respondent on the basis of their balanced diet.

#### Conclusion

Open interview method or questionnaire method has been chosen for the research purpose to study the relationship between diet and hormones and its impact on patient on Sultanpur.

The statistical data shows that the frequency of 70(%) patients are 42 times yes and 30(%) patients are 18 times no.

#### Reference

- 1. Karen K. Ryan and Randy J. Seeley. Food as a Hormone [PMC pub Med central]. 2013;22;339(6122):918-919.
- 2. Flier JS, Harris M, Hollenberg AN. Leptin, nutrition, and the thyroid: the why, the wherefore, and the wiring. J Clin Invest. 2000;105(7):859-861.
- Collaborators GBDO. Health effects of overweight and obesity in 195 countries over 25 years. Med. Articls. 2017;377(1):13-27.
- Newsholme P, Cruzat V, Arfuso F, Keane K. Nutrient regulation of insulin secretion and Actio1n J Endocrinol. 2014;221:105-120.
- 5. UN. Women, gender equality and sport. Women 2000 Beyond; c2007. p. 1-40.
- Yabut JM, Crane JD, Green AE, Keating DJ, Khan WI, Steinberg GR. Emerging roles for serotonin in regulating metabolism: New implications for an ancient molecule Endocr. Rev. 2019;40:1092-1107.