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EFFECT OF CONSUMING BROWN RICE BARS CONTAINING

***Hoodia gordonii* AND *Kappaphycus alvarezii* ON GLYCEMIC INDEX,**

APPETITE AND FOOD INTAKE IN HEALTHY ADULTS

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ABSTRACT

This study was conducted to determine the glycemic responses, glycemic index (GI) and appetite effects of brown rice bars containing *Hoodia gordonii* and *Kappaphycus alvarezii*. After overnight fasting, twelve healthy volunteers consumed either

HK1 (

H. gordonii

: 0 g,

K.alvarezii

: 0 g), HK2 (

H. gordonii

: 0 g,

K. alvarezii

: 2.8 g), HK3 (

H. gordonii

: 1.6 g,

K. alvarezii

:

0 g), HK4 (

H. gordonii

: 1.6 g,

K. alvarezii

: 2.8 g) or a reference (white bread) containing 50 g carbohydrates in five sessions.

In each session, blood glucose and appetite assessments were performed before (0 min), and 15, 30, 45, 60, 90 and 120 min

after food consumption. The energy intake (EI) assessment was performed at 120 min. Results showed that only HK3 was a

medium GI food, whilst others were categorised as high GI. Consumption of HK3 provided the highest satiety and, the

lowest motivation to eat and prospective food intake scores compared with other groups, but no significant difference ($p>0.05$

was shown. HK3 also significantly ($p<0.05$) reduced EI compared with HK1 and HK2, but not significant ($p>0.05$) compared

with HK4 and reference food. No significant difference ($p>0.05$) was shown by

K. alvarezii

in any of these parameters. In

conclusion, consumption of

H. gordonii

affected GI, appetite and EI that may have potential in body weight regulation.

Key words: Brown rice bars, *Hoodia gordonii*, *Kappaphycus alvarezii*, glycemic index, appetite