Limited Nutrition Knowledge and Altered Dietary Patterns Among Collegiate Females with PCOS (P16-009-19)

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Objectives: Lifestyle modification including dietary change is considered the first line of treatment for polycystic ovary syndrome (PCOS). Diet modification, even in the absence of weight loss, is linked with metabolic and reproductive improvement; yet, the optimal diet for treatment remains unclear.[1] Poor diet intake has been previously reported;[2] however, few studies have examined nutrition knowledge, a potential determinant of diet quality. The present study assessed nutrition knowledge and explored the relationship between knowledge and diet quality among collegiate women with PCOS.

Methods: Females attending a public university in Texas were recruited for voluntary participation in a 12-week nutrition education study. Diagnosis of PCOS was confirmed by university health center medical staff according to Rotterdam criteria. At baseline, participants completed a medical questionnaire, 3-day food diary, and Nutrition Knowledge Questionnaire.[3] Diet quality was assessed using the Eating Choices Index, which provides a score of 1–5 according to four daily eating behaviors: (i) breakfast intake, (ii) two portions of fruit intake, (iii) quality of milk intake (iv) quality of bread intake.[4] Descriptive analysis was used to examine demographic, knowledge and dietary data and Pearson's correlation was used to examine the relationship between knowledge and diet.

Results: Preliminary study results included nine females with PCOS (mean age: 23.0 $\pm$ 2.9 years; 33.3% African American; 33.3% Caucasian). Most women (89%) were obese (BMI $\geq$30 kg/m^2), reported seeking nutrition advice from the internet (89%), and perceived that energy from carbohydrates was most likely to contribute to weight gain (55%). Mean score on the nutrition knowledge questionnaire was low (47% correct); total nutrition knowledge was negatively associated with fruit consumption ($r = -815$; $P < .01$). Mean Eating Choice Index score was poor (8.7 $\pm$ 4.7) and milk or bread intake were avoided by 67%.

Conclusions: Limited nutrition knowledge and poor diet quality reported among women with PCOS is related. Diet quality reported supports belief that carbohydrates contribute most to weight gain. Specific nutrition education from reputable sources is warranted in this population.

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