DOI: 10.7860/JCDR/2026/88273.23046 Abstract No.: 54

Nutritional Composition, Health Benefits and Culinary Applications of Quinoa

AARZOO SINGH[1], GB BHATT[2]

ABSTRACT

Introduction: Quinoa is the seed of the chenopodium quinoa plant. It's also called "pseudo grains" Quinoa belongs to the dicotyledoneae class, the Chenopodiaceae family, and the Chenopodium genus. It is beneficial for groups of people indulging in sports activity, lactose intolerant person, children below 6 years, female with osteoporosis, individual having anaemia, diabetes mellitus, dyslipidaemia, gaining weight and wheat disease because of high nutritive values of quinoa, gluten free and therapeutic properties. Quinoa is a rich source of fibre, also contains a good amount of protein, vitamins, and minerals, and has a remarkable level of essential amino acids. Also, it has ample omega-3 fatty acid which is also beneficial for maintaining good health. In general, nutrient contents of quinoa are higher in variations per 100 g fresh weight of edible portion such as: protein (09.10-15.70 g), total fat (04.00-07.60 g) and dietary fibre (08.80-14.10 g).

Aim: To review nutritional potential of quinoa for improving human health and wellbeing.

Methodology: The literature for this review was searched in electronic databases including PubMed, Scopus, and Web of Science, using the following keywords, "Dyslipidemia, Pseudo grains, Chenopodium, dicotyledoneae, osteoporosis, Chenopodiaceae" Inclusion criteria consisted of peer-reviewed journal articles, systematic reviews, and meta-analyses, whereas opinion pieces, unpublished reports, grey literature and Studies ageing more than 5 years were excluded .A total of 45 studies were included in the final review.

Result: This review findings from 45 studies examining quinoa's profile, health benefits, and Culinary Applications. Quinoa is shown to be a highly nutritious grain, rich in protein (09.10-15.70 g), total fat (04.00-07.60 g) and dietary fibre (08.80-14.10 g) & essential micronutrients such as magnesium, iron, and B vitamins. It is considered a complete protein due to its balanced amino acid profile, making it particularly beneficial for vegetarians and vegans. Quinoa's gluten-free nature, enhancing its appeal among individuals with celiac disease or gluten sensitivity. Culinary studies suggest quinoa's versatility in various dishes, including salads, soups, and baked goods.

Conclusion: Quinoa is considered a promising functional millet for consumption because of its antibacterial, anticancer, anti-diabetic, antioxidant, anti-obesity, and cardio protective properties. Further trials are required to confirm the benefits and demonstrate the ideal consumption guidelines.

Implication: The findings of this study show an implication for public health nutrition in Diet.

Keywords: Dyslipidemia, Pseudo grains, Quinoa, Chenopodium, dicotyledoneae, osteoporosis, Chenopodiaceae

PARTICULARS OF CONTRIBUTORS:
1. PhD Scholar, Department of Nutrition and Dietetics, SGT University, Gurugram, Haryana, India.
2. Asssistant Professor, Department of Nutrition and Dietetics, SGT University, Gurugram, Haryana, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Aarzoo Singh,
PhD Scholar, Department of Nutrition and Dietetics, SGT University, Gurugram-122505, Haryana, India.
Email: Aarzoosingh130@gmail.com