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# Whole Grain Consumption and Chronic Disease Risk: A Scoping Review of Clinical Outcomes

*Zahra Zare, Faride Sadat Jalali, Mohadeseh Ghanbari-Jahromi*

**Background and Aims:** Chronic diseases are major global health concerns and contribute significantly to mortality rates. Whole grains are vital in reducing the risk of these diseases. This study analyzes various clinical outcomes related to whole grain consumption and its impact on chronic disease risk.

**Materials and Methods:** This study is a scoping review based on the JBI framework. A systematic search was conducted across four databases—Scopus, PubMed, WOS, and Cochrane—using relevant keywords up to the date of 1403.5.20. For descriptive quantitative analysis, Microsoft Power BI was utilized, while qualitative thematic analysis was performed using MAXQDA version 10.

**Results:** Out of 1,602 identified articles, 19 met the inclusion criteria for the study. The qualitative thematic analysis revealed three main themes. First, the "Effect of Whole Grains on Chronic Diseases" showed that whole grain consumption significantly reduces the risk of various chronic diseases, including type 2 diabetes, several cancers, and cardiovascular diseases. The second theme, "Potential Mechanisms," linked these benefits to components such as dietary fiber, polyphenols, antioxidants, vitamins, and minerals. Lastly, the theme "Association with Mortality Rates" indicated that whole grain consumption is associated with lower overall mortality rates and reduced mortality from cancer and cardiovascular diseases

**Conclusion:** Promoting whole grain consumption can reduce the risk of chronic diseases and serve as a cost-effective strategy to lower disease burden and healthcare costs. Policymakers can enhance this effort by implementing educational programs and creating economic incentives for the production and consumption of whole grain products.

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