Republic of Yemen

Ministry of Technical Education and Vocational Training

Applied College of Science & Technology – Bajil

Midwifery Department

Graduation Research Project – Academic Year 1445 AH / 2023–2024 AD

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Research Information		
Research Supervisor	**Research Title**	**Academic Year**
Dr. Ahmed Mohammed Shumilah (Master's in Medical Microbiology)	**The Prevalence of Malnutrition Among Pregnant Women Attending Bajil Axial Hospital in Bajil City**	1445 AH – 2024 AD

Abstract

• **Objective & Methodology:** This cross-sectional analytical study aimed to assess the prevalence rate of malnutrition and identify associated risk factors among pregnant women attending the outpatient nutrition clinic at Bajil Axial Hospital in Bajil City. A systematic random sampling technique was applied to select 207 clinically confirmed pregnant women between February and April 2024. Data were collected using structured interviewer-administered questionnaires covering sociodemographic, health, and dietary data. Anthropometric measurements, including Body Mass Index (BMI) and Mid-Upper Arm Circumference (MUAC) using adult MUAC tapes, were measured. Data were analyzed using SPSS v21 via percentages, mean, Chi-square tests ($p < 0.05$), odds ratios (OR), and 95% confidence intervals (CI).

• **Key Findings:** The overall prevalence rate of malnutrition among pregnant participants was 32.8% ($n = 68$), compared to 67.2% ($n = 139$) normal cases. Statistically significant risk factors strongly associated with undernutrition included unbalanced dietary diversity at 85.3% ($p = 0.001$, $\text{OR} = 3.2$, $95\%\text{ CI: } 1.5\text{--}6.9$), severe pregnancy cravings/vomiting (Waham) at 83.8% ($p = 0.042$, $\text{OR} = 2.1$, $95\%\text{ CI: } 0.9\text{--}4.4$), low family income at 65.2% ($p = 0.018$, $\text{OR} = 2.1$, $95\%\text{ CI: } 1.1\text{--}3.6$), rural residence at 64.7% ($p = 0.015$, $\text{OR} = 2.1$, $95\%\text{ CI: } 1.1\text{--}3.8$), food insecurity at 50.0% ($p = 0.025$, $\text{OR} = 1.9$, $95\%\text{ CI: } 1.1\text{--}3.5$), irregular meal schedules at 38.2% ($p = 0.030$, $\text{OR} = 1.9$, $95\%\text{ CI: } 1.1\text{--}3.7$), and illiteracy at 35.3% ($p = 0.018$, $\text{OR} = 2.2$, $95\%\text{ CI: } 1.1\text{--}4.1$).

• **Areas Requiring Improvement:** Undernutrition remains a substantial public health concern among pregnant women in rural and low-income settings in Bajil. Significant dietary imbalances and lack of household food security worsen nutritional deficits. Factors such as maternal age, occupation, husband's salary status, qat chewing, tea consumption, smoking, and main meal frequencies showed no statistically significant relationship with malnutrition ($p > 0.05$).

• **Key Recommendations:** Encourage pregnant women to adhere to nutritional guidance provided by maternal care programs and promote birth spacing; enhance pre-natal health screening and routine nutritional counseling during antenatal visits; strengthen government interventions and regional food security initiatives targeting rural and low-income households; and provide accessible educational opportunities for women in pastoral and rural communities.