UNIVERSITY OF DONGOLA
All Faculties (Faculty of Medicine and other Faculties)
RESEARCH QUESTIONNAIRE

Prevalence and Risk Factors of Anemia among Female Students at the University of Dongola

Study purpose: This questionnaire is designed to collect information about symptoms, medical history, and possible associated/risk factors of anemia among female university students. The information will be used for research purposes only and will be kept confidential.

Participant Information and Consent

Participation is voluntary. You may decline to answer any question or withdraw from the study at any time without penalty. No personally identifying information should be recorded. By completing this questionnaire and providing the requested information, you indicate your willingness to participate.

Questionnaire ID	_____
Date of interview	____ / ____ / _____
Faculty/College	_____
Participant consent	☐ Yes ☐ No

Section A: Socio-demographic and Academic Information

Code	Question	Response
A1	Age (years)	_____ years
A2	Place of residence	☐ With family ☐ University accommodation ☐ Rented accommodation ☐ Other: _____
A3	Marital status	☐ Single ☐ Married ☐ Other: _____
A4	Academic level/year	☐ 1st ☐ 2nd ☐ 3rd ☐ 4th ☐ 5th ☐ 6th ☐ Other: _____
A5	Approximate monthly personal/household food budget	☐ Low ☐ Moderate ☐ High ☐ Prefer not to answer

Section B: Menstrual and Reproductive History

Code	Question	Response
B1	Age at menarche	_____ years
B2	Average menstrual cycle length	☐ <21 days ☐ 21–35 days ☐ >35 days ☐ Irregular
B3	How many days does your menstrual bleeding usually last?	☐ 1–2 ☐ 3–5 ☐ 6–7 ☐ >7 days
B4	How would you describe the amount of menstrual bleeding?	☐ Light ☐ Moderate ☐ Heavy ☐ Very heavy ☐ Unsure

Code	Question	Response
B5	During menstruation, do you commonly pass large blood clots?	☐ No ☐ Yes ☐ Sometimes
B6	Have you ever been pregnant?	☐ No ☐ Yes

Section C: Dietary and Nutritional Factors

Code	Question	Response
C1	How many meals do you usually eat per day?	☐ 1 ☐ 2 ☐ 3 ☐ >3
C2	How often do you eat red meat (beef, goat, camel, etc.)?	☐ Never ☐ <1/week ☐ 1–2/week ☐ 3–4/week ☐ 5/week
C3	How often do you eat legumes (beans, lentils, chickpeas, etc.)?	☐ Never ☐ <1/week ☐ 1–2/week ☐ 3/week
C4	How often do you eat green leafy vegetables?	☐ Never ☐ <1/week ☐ 1–2/week ☐ 3/week
C5	How often do you eat fruits rich in vitamin C (e.g., citrus, guava)?	☐ Never ☐ <1/week ☐ 1–2/week ☐ 3/week
C6	Do you usually drink tea or coffee with/within about 1 hour of meals?	☐ No ☐ Yes, sometimes ☐ Yes, usually
C7	Do you follow a vegetarian/vegan diet?	☐ No ☐ Vegetarian ☐ Vegan
C8	Have you taken iron or multivitamin supplements during the last 3 months?	☐ No ☐ Yes, regularly ☐ Yes, occasionally

Section D: Medical and Medication History

Code	Question	Response
D1	Have you ever been diagnosed with anemia?	☐ No ☐ Yes ☐ Do not know
D2	Have you ever been diagnosed with iron deficiency?	☐ No ☐ Yes ☐ Do not know
D3	Have you ever been diagnosed with a chronic or gastrointestinal disease (e.g., kidney, liver, malabsorption disorder)?	☐ No ☐ Yes; specify: _____
D4	Have you noticed blood in stool or black/tarry stool during the last 6 months?	☐ No ☐ Yes ☐ Unsure
D5	Have you taken antimalarial treatment during the last 6 months?	☐ No ☐ Yes; number of episodes: _____
D6	Have you had intestinal worm infection diagnosed or treated during the last 12 months?	☐ No ☐ Yes ☐ Unsure

Section E: Symptoms Potentially Associated with Anemia

Code	Question	Response
E1	Unusual tiredness or fatigue	☐ Never ☐ Sometimes ☐ Often ☐ Almost always
E2	Dizziness or light-headedness	☐ Never ☐ Sometimes ☐ Often ☐ Almost always
E3	Shortness of breath during ordinary activity	☐ Never ☐ Sometimes ☐ Often ☐ Almost always
E4	Fast or noticeable heartbeat/palpitations	☐ Never ☐ Sometimes ☐ Often ☐ Almost always
E5	Reduced concentration or difficulty studying	☐ Never ☐ Sometimes ☐ Often ☐ Almost always
E6	Pale skin or pale inner eyelids noticed by you/others	☐ No ☐ Yes ☐ Unsure
E7	Unusual craving for non-food substances (e.g., ice, soil, starch)	☐ No ☐ Yes
E8	Cold hands or feet	☐ Never ☐ Sometimes ☐ Often ☐ Almost always

Section F: Additional Risk-Factor Information

Code	Question	Response
F1	How often do you miss meals because of classes or other commitments?	☐ Never ☐ Rarely ☐ Sometimes ☐ Often
F2	Have you received health education about anemia/iron deficiency?	☐ No ☐ Yes
F3	If yes, main source of information	☐ University ☐ Health professional ☐ Internet/social media ☐ Family/friends ☐ Other: _____

Researcher Coding and Quality-Control Notes

- Assign a unique study ID to each questionnaire; do not record the participant's name.
- Pilot-test the questionnaire on a small group of female students who will not be included in the final sample.
- Train data collectors to ask sensitive menstrual and reproductive questions privately and respectfully.
- Use a standardized data dictionary for coding all variables before data entry.