A STUDY ON KNOWLEDGE, ATTITUDE, PRACTICES AND PREVALENCE OF ANEMIA AMONG IN-PATIENTS AT A TERTIARY CARE HOSPITAL

Dr. B.Vaishnavi[1], P.Nithyasree[2], R.Rajeswari[2], P.Praveen Kumar[2], B.Sneha[2]

[1]Assistant Professor, Department of Pharmacy Practice, Sri Padmavathi School of Pharmacy,Tiruchanoor, Tirupathi, Andhra Pradesh, India, 517503.

[2]Pharm.D Interns, Department of Pharmacy Practice, Sri Padmavathi School of Pharmacy,Tiruchanoor, Tirupathi, Andhra Pradesh, India, 517503.

ABSTRACT

Anaemia is referred to as a lack of enough healthy blood cells to carry oxygen to body tissues. The extent of anaemia as a health problem is huge, and it may be addressed by raising awareness and encouraging the adoption of appropriate attitudes and behaviors. The present study was planned to assess the knowledge, attitude, practices of anemia among the study population and estimate the prevalence of anemia. A prospective observational questionnaire-based study was performed with admitted cases of anemia over 6 months period. A total of 204 patients were selected for the study. All data concerning risk factors were recorded and responses for KAP questionnaire were recorded and severity, prevalence rates were analyzed. Out of 204 patients, highest number of patients were under the age group of 26-50 years, followed by 51-75 years, 19-25 years respectively. The maximum number of patients were male 112 (54.9%) followed by females were 92 (45.1%) respectively. Our results showed that lack of awareness regarding anemia among the study population plays a significant role in the increased risk of anemia. Our study demonstrates that anemia remarkably diminishes the patients' Quality of Life that it predominantly shows a negative impact on physical health.

KEYWORDS: Anemia, KAP questionnaire, prevalence, prospective study, In-patient study.

INTRODUCTION:

Anaemia and iron insufficiency are highly common among female teenagers all over the world. There is a paucity of literature on iron deficiency knowledge, attitudes, and practice[1]. The extent of anaemia as a health problem is huge, and it may be addressed by raising awareness and encouraging the adoption of appropriate attitudes and behaviours[2].

A KAP survey is a representative study of a certain community to gather data on what is known, believed, and done about a specific issue[3]. Data is obtained orally by an interviewer using a structured, standardized questionnaire in most KAP surveys[4]. Depending on the study's objectives and methodology, these data can subsequently be examined quantitatively or qualitatively[5]. A KAP survey can be created expressly to collect data on general habits and beliefs. The results of the KAP survey are crucial for planning, implementing, and evaluating projects[6].

WORK PLAN:

STEP 1: **Define the survey's goals**: Examine the knowledge you already have. Determine the survey's purpose. Determine the areas of investigation. Determine the survey's target audience. Make a sample strategy.

STEP 2: Create a survey protocol: Organize the survey protocol's contents. Create a workplan, define the primary research questions, and evaluate whether the survey requires ethical review. Make a financial plan.

STEP 3: Design the survey questionnaire: Develop the survey questionnaire, Make a data analysis plan ,Pre-test and finalize the questionnaire.

STEP 4: Conduct the KAP survey: Choose survey dates and timeline, Recruit survey supervisors and interviewers, Train supervisors and interviewers, Ensure the quality of data collected

STEP 5: Analyse the data: Clean the data, implement a data analysis plan, Interpret the findings

STEP 6: Use the data: Translate findings into action, Write the survey report, disseminate findings, Use KAP survey data in programming, as shown in (figure 1).

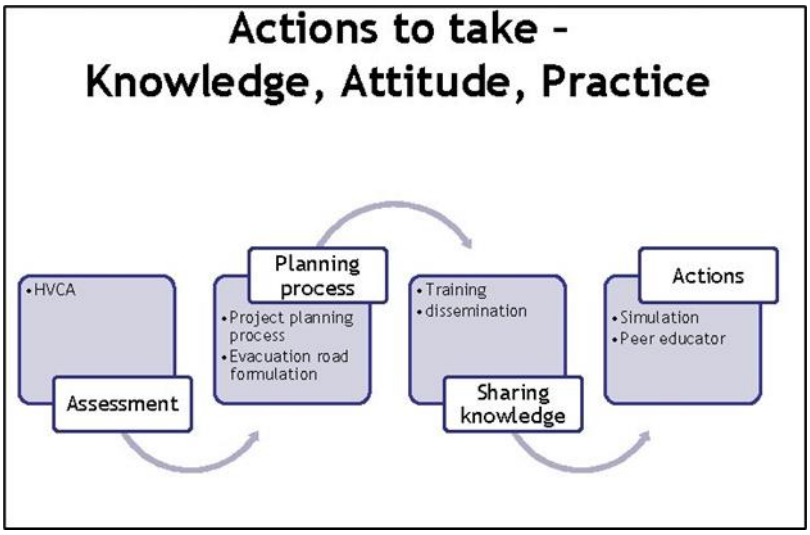

Figure 1: KAP Action Plan

AIM: The main aim of the present study is to analyse the knowledge, attitude and practices on Anaemia among In-patients in a tertiary care hospital.

OBJECTIVES:

- To assess the anemia prevalence among this population
- To study the risk factors of anemia among this population
- To observe the knowledge level of subjects based on questionnaires.
- To observe the attitude level of subjects based on questionnaires.
- To observe the practices level of subjects based on questionnaires.
- To identify KAP levels of subjects using a validated questionnaire.
- To evaluate anemia diagnosed based on hemoglobin levels.
- To categorize subjects into mild, moderate, severe anemia according to WHO.
- To educate the study population regarding anemia.

MATERIALS AND METHODS:

Study design: Prospective observational questionnaire-based study

Study site: Study was conducted in the Department of General Medicine at (SVRRGGH) Sri Venkateshwara Ramnarain Ruia Government General Hospital, tertiary care teaching hospital, Tirupati.

Study duration: 6 months (November 2021- April 2022)

Study population: 204 Anemic patients

Study materials:

- Patient data collection proforma
- Informed consent form (ICF)
- KAP questionnaire
- Patient Information Leaflet on Anemia

Inclusion criteria: Patients of age >18 years in General Medicine in-patient wardwith or without co-morbidities presenting with Hemoglobin value less than 12g/dL.

Exclusion criteria:

- Patients unwilling to participate in the study.
- Pregnant and lactating women.

Method Of Data Collection:

This prospective observational study was carried out after obtaining the permission of institutional review board, Sri Padmavathi School of Pharmacy, Tiruchanoor, Tirupati, A.P,

India. All patients (>18 years) having anaemia admitted in the general medicine in-patient ward of SVRRGGH are included in the study.

Firstly the data is obtained through direct patient interview and case profile. During the patient interview the following data was collected and entered into proforma.

- ✓ Demographic Details
- ✓ Detailed Symptoms
- ✓ Past Medical History
- ✓ Past Medication History
- ✓ Dietary Habits
- ✓ Previous And Current Alcohol Consumption Habits

By viewing the case profile of the patient the following data was collected and entered into proforma:

- ✓ Laboratory Findings
- ✓ Systemic Examination
- ✓ Previous Surgical History
- ✓ Medication Therapy

Based on this data the prevalence data of anemia and the Knowledge, Attitude, Practices of patients was assessed.

Statistical Analysis:

After using KAP Questionnaire, the responses obtained were entered into Microsoft excel 2022 and calculation was made according to the domains and results were obtained.

RESULTS:

Subsequent to collection, application of demographic details KAP responses were entered into the Microsoft Excel-2022 and calculation was made and firstly, demographic details segregation was done. Out of 204 patients, highest number of patients were under the age group of 26-50 years were 90 (44.1%), followed by 51-75 years were 89 (43.6%), >75 years were 15 (7.35%), 19-25 years were 10 (4.9%) respectively, as shown in (figure 2).

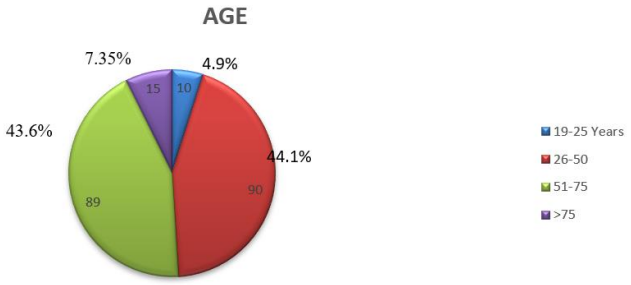

Figure 2: Age wise distribution in study group

Out of 204 patients maximum number of patients was male 112 (54.9%) followed by females were 92 (45.1%) respectively, as shown in (figure 3).

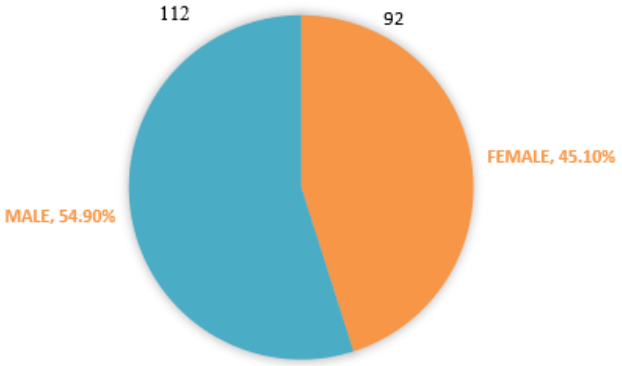

Figure 3: Gender wise distribution

Out of 204 patients maximum number of patients were moderately anemic were 128(62.7%) followed by severely anemia were 63 (30.9%), mildly anemic were 13(6.4%) respectively, as shown in (figure 4).

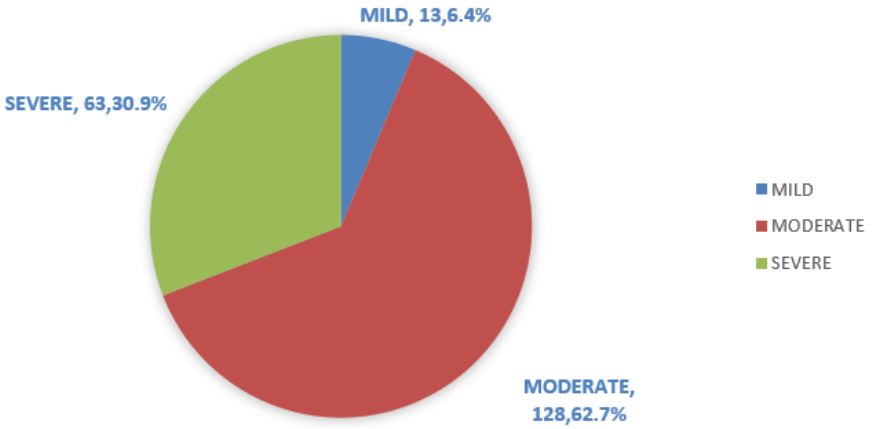

Figure 4: Categorization of Anemia severity

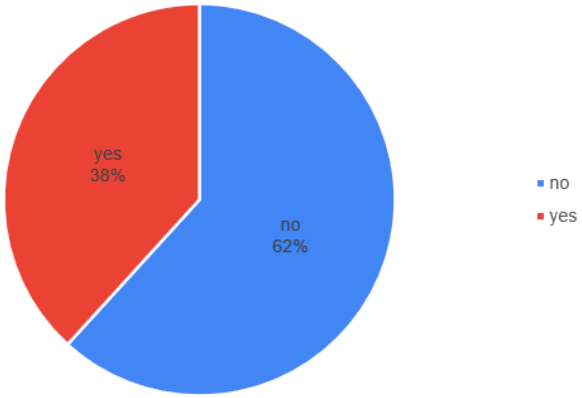

Figure 5: Alcohol consumption in the study group

Out of 204 patients, 77 patients (38%) consume alcohol on a regular basis, 127 patients (62%) do not consume alcohol, as shown in figure 5. Response to knowledge-based questions, attitude-based questions and practice-based questions were represented in (figure 6), (figure 7), and (figure 8) respectively.

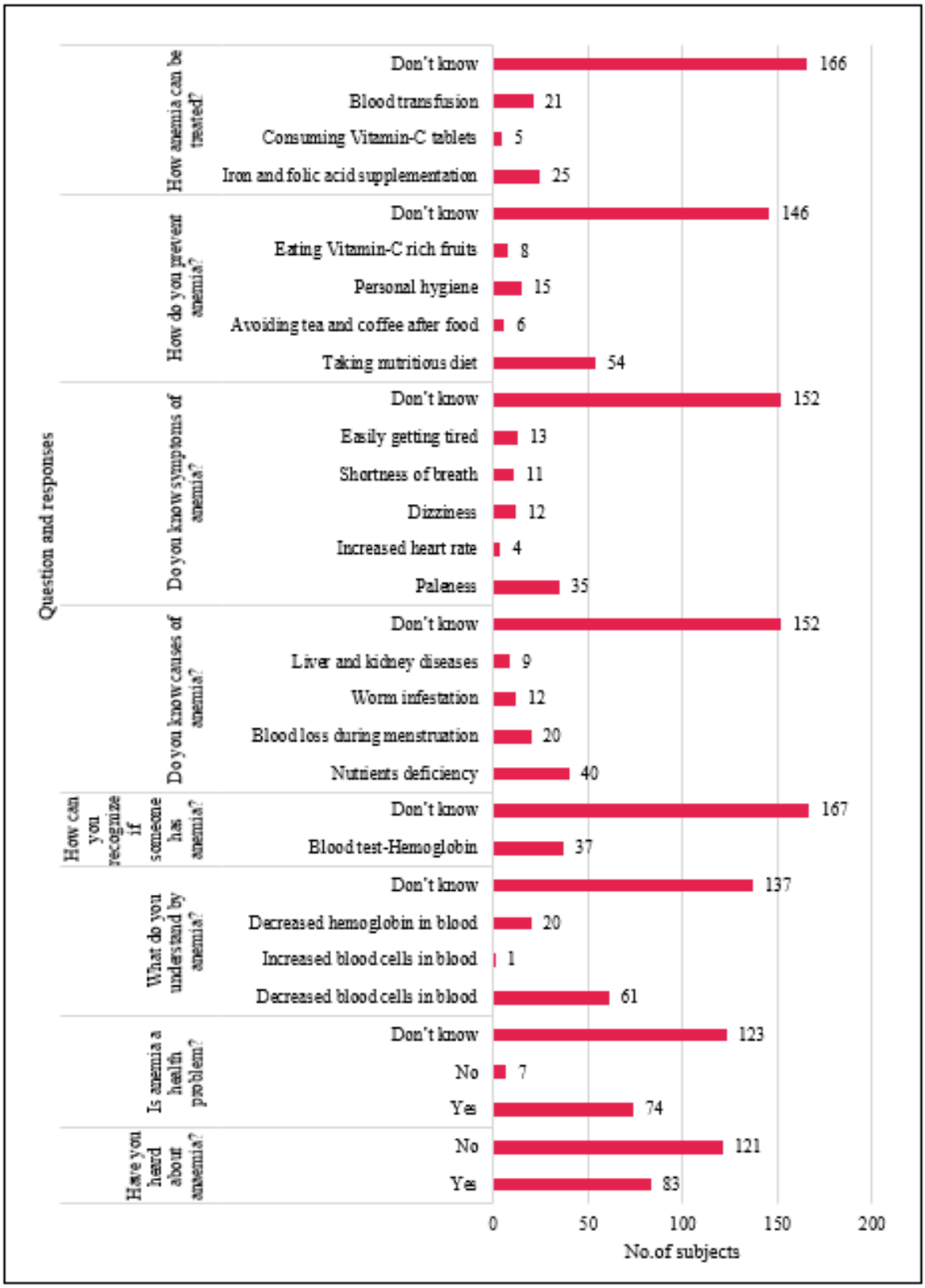

Figure 6: Graphical representation of responses to knowledge-based questions

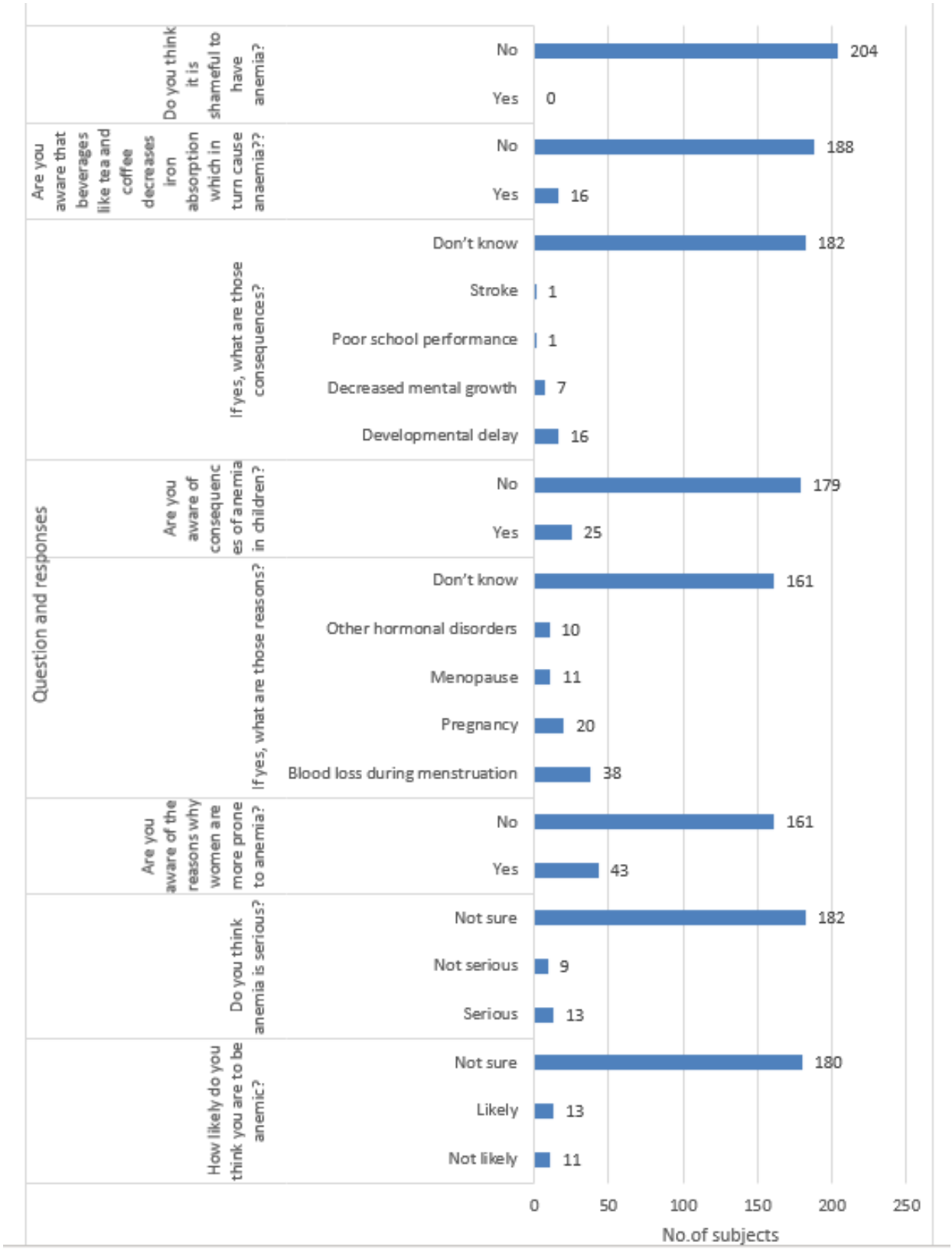

Figure 7: Graphical representation of response to attitude-based questions

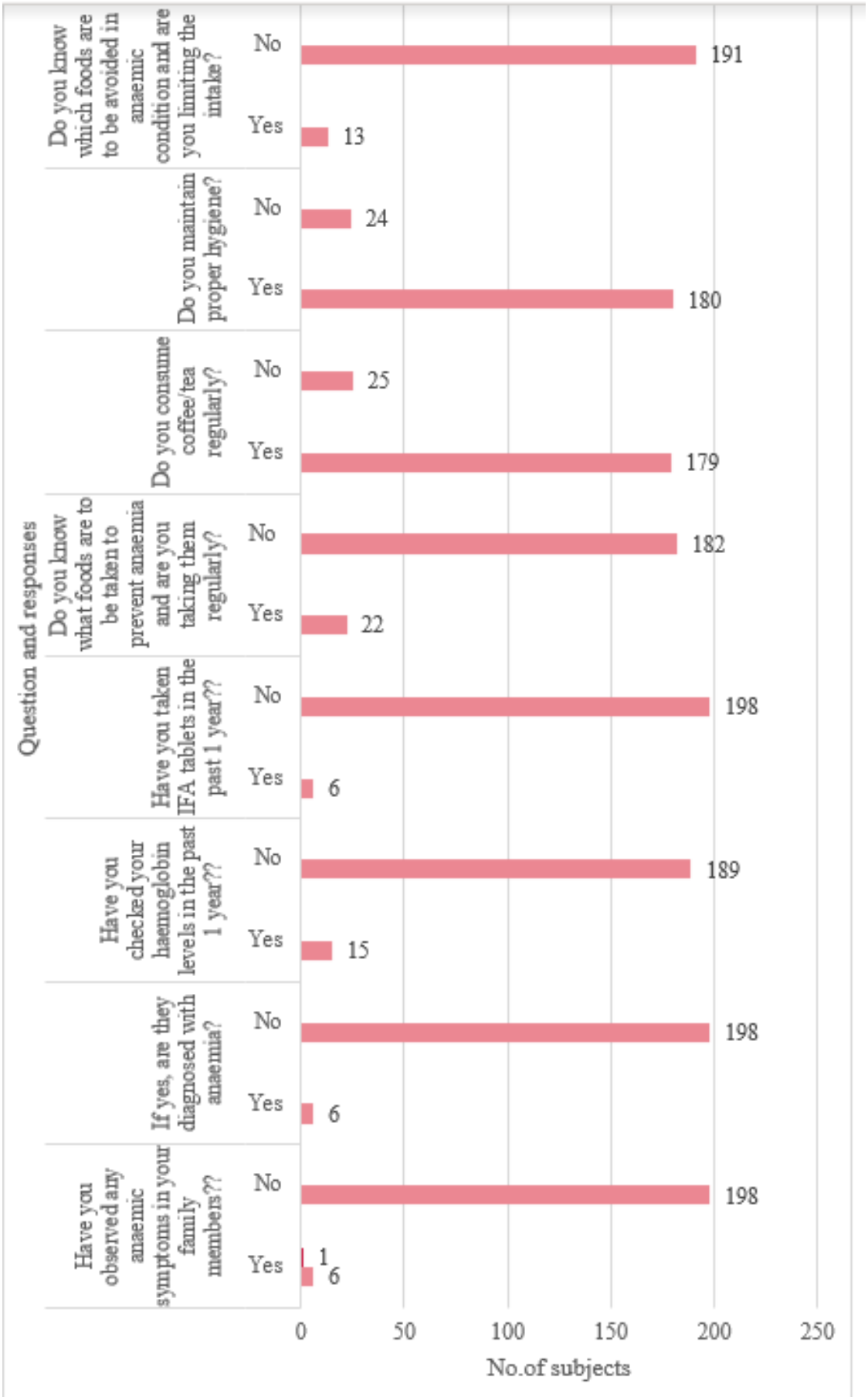

Figure 8: Graphical representation of response practice-based questions

Out of 204 patients, those who are suffering from gastrointestinal diseases were 15.19%, followed by cardiovascular diseases were 14.7%, kidney diseases were 14.21%, liver diseases were 11.76%, others (poisoning cases, cystitis, anasarca with pancytopenia, etc.,) were 22.05% respectively, as shown in (figure 9).

Out of 204 patients, 39.2% patients were given IFA prophylaxis whereas 60.7% patients were not given IFA prophylaxis, as shown in figure 9. Out of 204 patients, 179 patients(87.7%) consume caffeine on a regular basis whereas 25 patients (12.25%)do not consume caffeine, as shown in (figure 10).

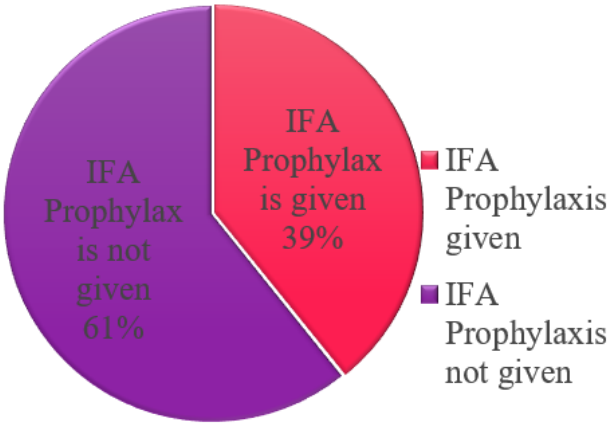

Figure 9: Prescribing IFA Prophylaxis among the study population

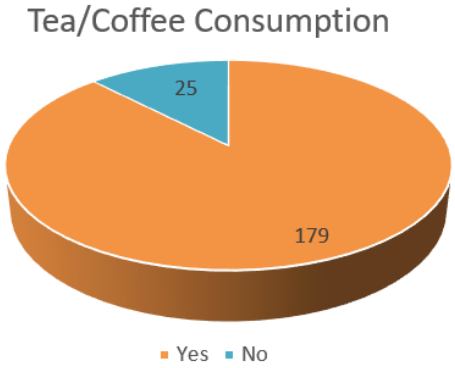

Figure 10: Caffeine consumption in study population

DISCUSSION:

Our study reflects the ignorance and lack of awareness on anemia based on the knowledge, attitude and practices responses obtained by using the questionnaire. Most of the patients are unaware of the fact that anemia is actually a health problem. We used specially designed patient information leaflets to provide education to the patients regarding anemia thereby improving their quality of life.

Our study evaluates the prevalence of anemia in male and female patients and illustrates the impact on severity of anemia in relation to various domains among anemic patients. The framework of study incorporates a total of 204 patients suffering from anemia. Among various age groups, the greatest proportion of patients hospitalized were under the age group of 26-50 years (90) followed by 51-75 years (89), >75 years (15), 19-25 years (10) respectively.

In our study, regarding gender, prevalence rate of anemia in male patients (54.9%) is more when compared to prevalence rate of anemia in female patients (45.1%). It is due to the risk factors like different comorbid conditions and alcohol intake. Alcohol can affect red blood cell production by reducing the number of precursor cells in the bone marrow, resulting in the creation of fewer mature red blood cells. This prevalence rate obtained from our study was contrasted by **Abdulla Ahmed Al-alimi et al.**[7]

In our study, moderate degree of anemia among the participants in the present study was high (62.7%), followed by 30.9% had a sever degree of anemia and 6.4% of participants had a mild degree of anemia. Low dietary iron and folic acid consumption, limited iron bioavailability, and persistent blood loss owing to infections are all factors that contribute to the high prevalence of anaemia.

Out of all admissions, the diagnostic procedure that was predominantly done was by using CBC especially Hemoglobin is taken into consideration. Structured questionnaire was used as a tool to collect socio-demographic characteristics, individual dietary diversity and level of household food security data in our study which was correlated with a study conducted in similar study[8].

The outcomes of the study suggest that an aggressive nutrition and health education campaign be implemented to communicate suitable anaemia knowledge. Constant reinforcement of knowledge by health staff may result in a change in patients' nutritional habits, adaptation of contraceptive techniques, and assuring early registration and regular follow up, all of which will go a long way toward reducing anaemia incidence.

CONCLUSION:

The current study assesses the knowledge, attitude, practices of patients. It highlights the prevalence of anemia based on age and gender along with categorizing them based on the severity. Our results showed that lack of awareness regarding anemia among the study population which plays a significant role in the increased risk of anemia. Our study demonstrates that anemia remarkably diminishes the patients Quality of Life that it predominantly shows negative impact on physical health. As a clinical pharmacist it is our role to provide counselling sessions in order to prevent the further risk of anemia. Our study suggests that repeated attempts of counseling for dietary measures of anemia to prevent further complications. From a practical point of view Anemia deserves more attention in clinical conditions.

CONFLICT OF INTEREST:

The authors have no conflicts of interest regarding this investigation**.**

REFERENCES:

1. Marwan O. Jalambo et al. “Improvement in Knowledge, Attitude and Practice of Iron Deficiency Anaemia among Iron-Deficient Female Adolescents after Nutritional Educational Intervention. Global Journal of Health Science. 2017. Vol.9 . 15-23.
2. Dr.Salahideen ALHAJ “KAP surveys: How to develop knowledge, attitude and practice survey”, Linkdln, 2018.
3. Treatment Algorithm for Iron deficiency from-Camil Castelo-Branco et al. “Iron Deficiency without anemia: indications for treatment” , GREM Gynecological and reproductive Endocrinology & Metabolism, 2020, 215-222.
4. Sreymom Oy et al. “Nutrients in Adolescent Girls With Anemia Versus Nonanemic Adolescent Girls and the Optimized Food-Based Recommendations to Meet Adequacy of These Nutrients in Adolescent School Girls in East Java, Indonesia” Sage journals, 2019, Vol 40(3) 295-307.
5. Anemia of chronic diseases pathophysiology from- Ricardo de las Cuevas Allende et al. Anaemia of chronic diseases: Pathophysiology, diagnosis and treatment. Medicina Clínica 2021, Volume 156, issue 5, Pages-235-242
6. Iron deficiency anemia pathophysiology from-Ole Haagen Nielsen et al. Rational Management of Iron-Deficiency Anaemia in Inflammatory Bowel Disease. MDPI journals/nutrients- 2018, Vol 10(1):82
7. Abdullah Ahmed Al-alimi et al.Prevalence of Iron Deficiency Anemia among University Students in Hodeida Province, Yemen. Hindawi Journals.2018 Vol.2018
8. Anthony Fauci et al. Harrison’s Principles of Internal Medicine. 20th edition. McGraw-Hill Professional Publishers; 2018.