

**A prospective study on role of doctor of
pharmacy/clinical pharmacist in estimating the KAP
(knowledge, attitude, practice) in medication use of
patients with chronic endocrine disorders and
achievement of medication adherence and improvement
of quality of life of patients with advanced patient
counselling services in an esi hospital**

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ABSTRACT

The study aims at implementation of Doctor of pharmacy services in estimating the KAP (knowledge, attitude, practice) in medication use of patients with chronic endocrine disorders and achievement of medication adherence and improvement of quality of life of patients with advanced patient counseling services in assessing the KAP (knowledge, attitude, practice) in General Medicine (endocrinology) of an ESI hospital with an objective of To assess and educate KAP in medication usage among patients ,to achieve patient medication adherence, to minimize the complications regarding the improper usage of medications and improving quality of life minimizing complications of endocrine disorders. Study Design: It is a Prospective observational study. Study Period: The Present study was conducted for a period of six months from October 2018 to March 2019. Study site: The Present study was conducted in General Medicine (endocrinology) department of an ESI hospital .Sample size: The Patients admitted in hospital during the study period of six months it was 150 Patients. Source of Data: All the patients satisfying the inclusion criteria were selected from General Medicine (endocrinology) department of an ESI hospital .All the required data was collected from patients through Patient Profile form, Patient counseling and feedback forms).The number of patients with positive feedback after counseling of KAP in medication use of patients with Chronic Endocrine Disorders were 142 OUT OF 150 which clearly states 95% out of 100%. Prism graph pad software was used for this study and P-Value is 0.001 which states this present study was highly significant.

INTRODUCTION

KAP (knowledge, attitude and practices): A knowledge, attitude and practices (KAP) survey is a quantitative method (predefined questions formatted in a standardized questionnaire) that provide access to quantitative and qualitative information. This survey identifies misunderstanding that may represent obstacles to the activities that would like to implement and potential barrier to behavior change. KAP reveals what was said but allows a considerable gap between what is said and what is done [1, 2, 3].

Needs and Importance of KAP: KAP surveys are useful to plan, implement and evaluate ACSM (advocacy, communication, social mobilization) works. KAP gathers information about what representatives know about various diseases, what they think about people with particular disease or about the health system response to particular disease and what they actually do with regard to seeking care or taking other action related to particular disease [3,4,5]. KAP is useful to identify knowledge gaps, cultural beliefs or behavioral pattern that may facilitate understanding and actions by problems or create barriers for certain disease control efforts. They can identify information which are commonly known

and attitudes that are commonly held. To some extent they can identify factors which leading to behavior that are not much known to most of the peoples, reasons for their attitude and how and why people practices certain health behavior. KAP can also access communication process and sources which can define effective activities and messages in prevention and control of certain diseases. KAP can also be used to identify needs, problems and barriers in programme delivery as well as solutions for equality improvement and service accessibility [6,7,8,9].

Role of clinical pharmacist in performing KAP: Evidences showed that clinical pharmacist helps to improve prevention and management of drug-related problems. The pharmaceutical care of clinical pharmacists helps patients to understand medication. A cross-sectional survey displayed that patients are willing to receive counseling services of pharmacist regularly during treatment and they may like to pay for the services. At present, we have pharmacists who are mainly engaged in therapeutic drug monitoring, patient medication education, psychological counseling, and other services. Clinical pharmacist have a great role in performing KAP includes [9].

- To create awareness among medication usage
- To achieve medication adherence
- To improve QOL of patient
- To minimize complications
- To achieve desired therapeutic effects
- To improve patient education regarding the disease
- To improve patient education on signs and symptoms of a disease
- To provide information about diagnosis tests
- To provide appropriate treatment
- Management of complications

ENDOCRINE DISORDERS: Endocrine system influences our body functions, the endocrine abnormalities usually occur according to the following processes [10].

- Hyper function
- Hypo function
- Hormone resistance

Hyper function: This occurs due to excess of hormone secreting tissues. Examples are adenoma, carcinoma, ectopic hormone production, excessive stimulation from inflammation, infections, iatrogenic (drug induced or hormonal administration) [10].

Hypo function: Hypo function usually occurs due to deficiency of hormones, which

may occur due to destruction of hormone forming tissues from inflammations, infections, surgical or radiation damages, developmental defects, enzyme deficiency, hemorrhage and infarction, nutritional deficiency [10].

Hormone resistance: Due to inherited mutations in receptors a peripheral resistance will occur to the hormones, in this case there may be adequate or excessive productions of hormones will occur. Examples are defect in membrane receptors, nuclear receptors. [10].

Most commonly seen endocrine disorders are

1. Diabetes mellitus
 - Type 1 DM
 - Type 2 DM
2. Thyroid disorders
 - Hyperthyroidism
 - Hypothyroidism
 - Goiter
3. Hypertension.

AIM

The study aims at implementation of Doctor of pharmacy services in estimating the KAP (knowledge, attitude, practice) in medication use of patients with chronic endocrine disorders and achievement of medication

adherence and improvement of quality of life of patients with advanced patient counseling services in assessing the KAP (knowledge, attitude, practice) in General Medicine (endocrinology) of an ESI hospital.

OBJECTIVES

The key objectives of the study include:

- To assess and educate KAP in medication usage among patients
- To achieve patient medication adherence
- To minimize the complications regarding the improper usage of medications.
- Patient counseling regarding (self-test, lifestyle modification, disease, prevention and precaution).
- To improve quality of life of patients.
- To achieve desired therapeutic outcomes.

METHODOLOGY

Study Design: It is a Prospective observational study. **Study Period:** The Present study was conducted for a period of six months from October 2018 to March 2019. **Study site:** The Present study was conducted in General Medicine (endocrinology) department of an ESI hospital. **Sample size:** The Patients admitted in hospital during the study period of six months it was 150 Patients. **Source of Data:** All the patients satisfying the inclusion

criteria were selected from General Medicine (endocrinology) department of an ESI hospital. All the required data was collected from patients through Patient Profile form, Patient counseling and feedback forms). **Inclusion criteria:** Patients with aging above 18 years, Patients having previous history of medical, medication problems, The Patients who are willing to participate in the study. **Exclusion criteria:** Patients who are not willing to participate in the study like Pregnancy, Lactation, and Cancer Patients. **Method of collection of data:** All the patients satisfying the inclusion criteria were selected from the General Medicine (endocrinology) department of ESI hospital. After thoroughly explaining the study methodology to the subjects, and included in the study. The necessary information was collected by interviewing the patients and parents using the following annexure.

ANNEXURE -1: Patient Profile Form

ANNEXURE-2: Patient Counseling and feedback forms

ETHICAL APPROVAL

The Present study is approved by Ethical Committee of Gautham College of Pharmacy, R.T Nagar, Bangalore, Karnataka, India affiliated to ESI Hospital,

Indira nagar, Bangalore, and Karnataka, India.

RESULTS AND DISCUSSION

Table 1 shows Age wise distribution of male patients, in this study total of 150 patients were enrolled in the study. The males population is 84. The age wise male Patients population ranges from the 12 Patients were in the age group of 10-20 years (14.28%) 18 Patients were in the age group of 20-30 years (21.42%), 17 patients were in the age group of 30-40 years (20.23 %), 12 patients were in the age group of 40-50 years (14.28 %), 16 Patients were in the age group of 50-60 years (19.04 %), 09 patients were in the age group of 60-70 years (10.71 %), 0 patients were in the age group of 70-80 & 80-90 years (0%).

Table 2 shows in this study total of 150 patients were enrolled in the study. The Females population is 66 the age wise Female patients population ranges from the 4 Patients were in the age group of 10-20 years (6.06 %), 8 patients were in the age group of 20-30 years (12.12%), 17 Patients were in the age group of 30-40 years (31.81 %), 21 patients were in the age group of 40-50 years (19.512 %), 8 patients were in the age group of 50-60 years (12.12 %), 7 patients were in the age group of 60-70

years (10.60%), 1 patients were in the age group of 70-80 years (1.515%).

Table 3 shows Gender Wise Distribution of Study Patients a total of 150 patients were selected for the study, in which 84 patients were males remaining 66 patients were females. Table 4 shows a total of 150 patients were selected for the study, in which 27 patients were alcoholic and 41 patients were having behavior of smoking.

Table 5 Showing Literacy Wise Distribution of patients of which 32 number (both males and females) with percentage of 21.33 were literates and 118 (both males and females) with percentage of 78.66 were literates out of 150 patients.

Table 6 & 7 shows the patients to whom KAP (knowledge, attitude, practice) in medication use of patients with chronic endocrine disorders assessed and provided with patient counseling as follows 16 number of (both males and females) were assessed and counseled in 10-20 age group (10.66%), 24 number of (both males and females) were assessed and counseled in 20-30 age group (16.6%), 34 number of (both males and females) were assessed and counseled in 30-40 age group (22.66%). 33 female were assessed and counseled in 40-50 age group (22.1%) and 24 number of

(both males and females) were assessed and counseled in 50-60 age group (16.6). 16 number of (both males and females) were assessed and counseled in 60-70 age group (10.66%), 1 number of (both males and females) were assessed and counseled in 70-80 age group (0.666%),

Table No 8 Shows the number of patients with positive feedback after counseling of KAP in medication use of patients with Chronic Endocrine Disorders. Were 142 OUT OF 150 which clearly states 95% out of 100%. Prism graph pad software was used for this study and P-Value is 0.001 which states this present study was highly significant.

CONCLUSION

The present study states that in India there are no specially allotted health care professionals in assessing KAP in medication usage among the patients, so this study concludes that the Doctor of Pharmacy Professional is well expertise in patient counseling in achieving medication adherence, improving knowledge of patient in medication usage improving quality of life, minimizing complications and achieving desired therapeutic out comes. So there is urgent need of creating a specific

active role and cadre in Indian hospitals for Doctor of Pharmacy professionals.

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RESEARCH STUDY TABLES AND FIGURES

Table No1: Age wise distribution of male patients

Age in years	Total number of Patients	Percentage (%)
10-20	12	14.28
20-30	18	21.42
30-40	17	20.23
40-50	12	14.28
50-60	16	19.04
60-70	9	10.71
70-80	0	0
80-90	0	0
Total	84	100

Fig No 1: showing Age wise distribution of male patients

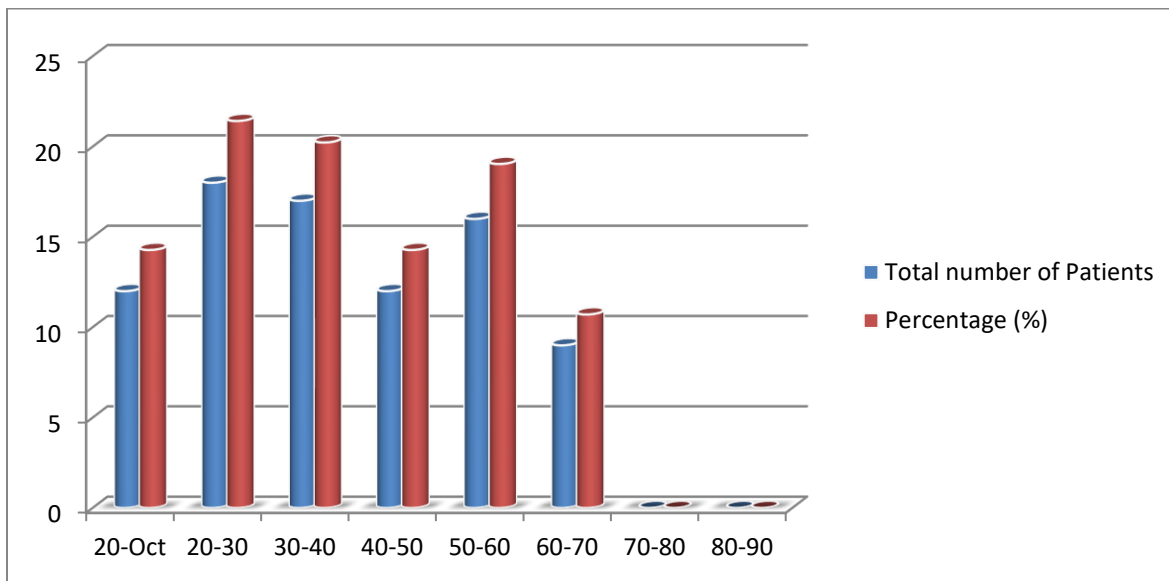


Table No 2: Age wise distribution of Female patients

Age	Total	Percentage (%)
10-20	4	6.06
20-30	8	12.12
30-40	17	25.75
40-50	21	31.81
50-60	8	12.12
60-70	7	10.60
70-80	1	1.515
Total	66	100

Fig No 2: showing Age wise distribution of Female patients

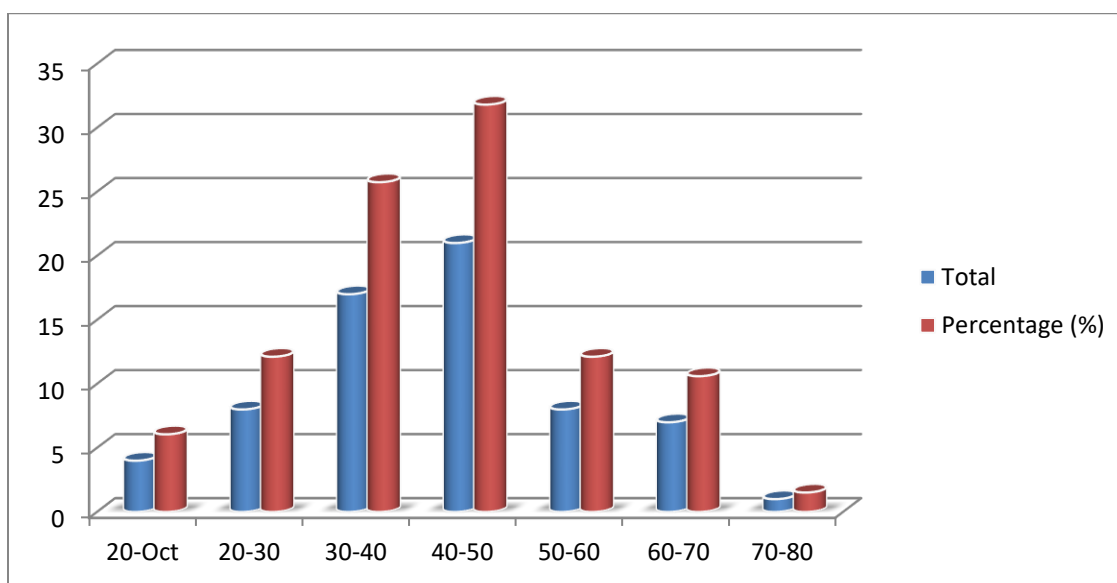


Table No 3: Gender Wise Distribution of Study Patients

Status	Total	Percentage
Number of male patients	84	56
Number of female patients	66	44
Total number of patients	150	100

Fig No 3: Showing Gender Wise Distribution of Study Patients

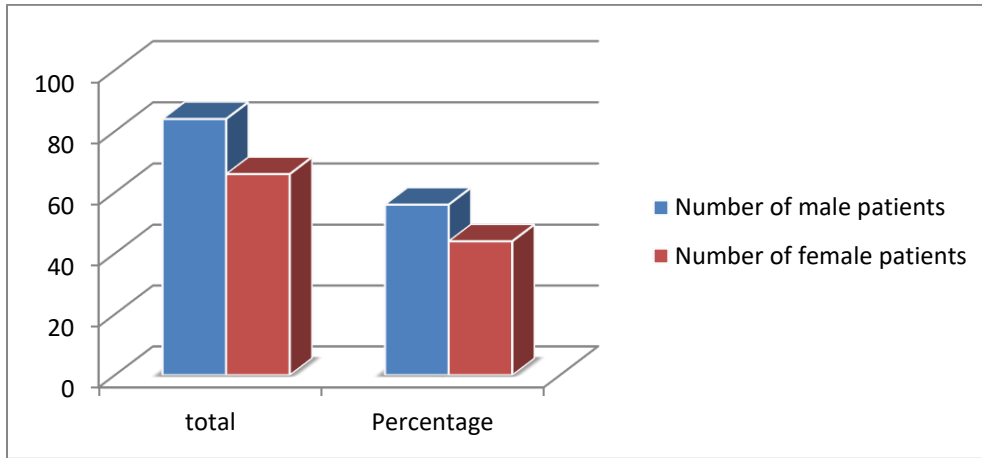
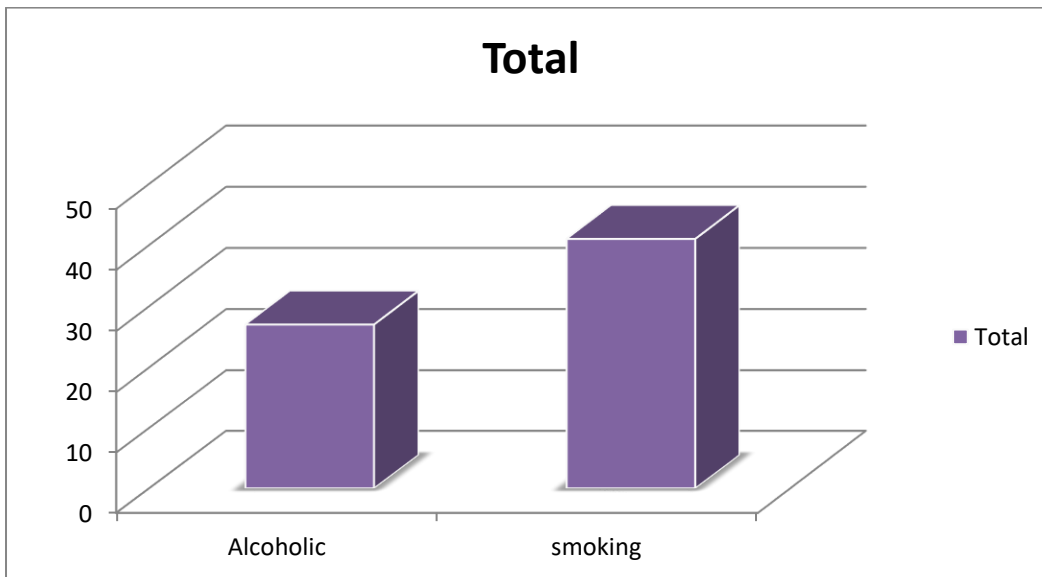


Table No4: Personnel behavior wise distribution of study population.

Status	Total
Alcoholic	27
smoking	41

Fig No4: showing Personnel behavior wise distribution of study population.



TableNo5: Showing Literacy Wise Distribution of patients

S.NO	LITERACY STATUS	NUMBER	PERCENTAGE.
1.	Literates [l]	32	21.33
2.	Illiterates [ill]	118	78.66
3.	Total [l+ill] =	150	100

Fig No5: Showing Literacy Wise Distribution of patients

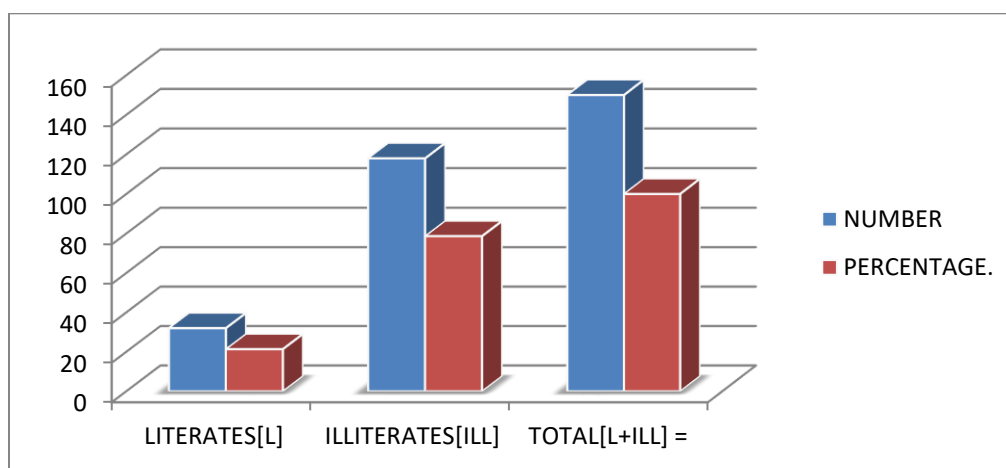


Table 6: Representing the Number of Females to whom KAP assessed in medication usage

S.NO	AGE GROUP OF PATIENTS	NUMBER OF .PATIENTS TO WHOM KAP ASSESSED IN MEDICATION USAGE (BOTH M+FM)	PERCENTAGE OF NUMBER OF PATIENTS TO WHOM KAP ASSESSED IN MEDICATION USAGE (BOTH M+FM)
1.	10-20	16	10.66
2.	20-30	24	16.6
3.	30-40	34	22.66
4.	40-50	33	22.1
5.	50-60	24	16.6
6.	60-70	16	10.66
7.	70-80	1	0.666
8.	80-90	0	0
9.	TOTAL=	150	100

Figure 6: Table Representing the Number of Females to Whom KAP Assessed in medication usage

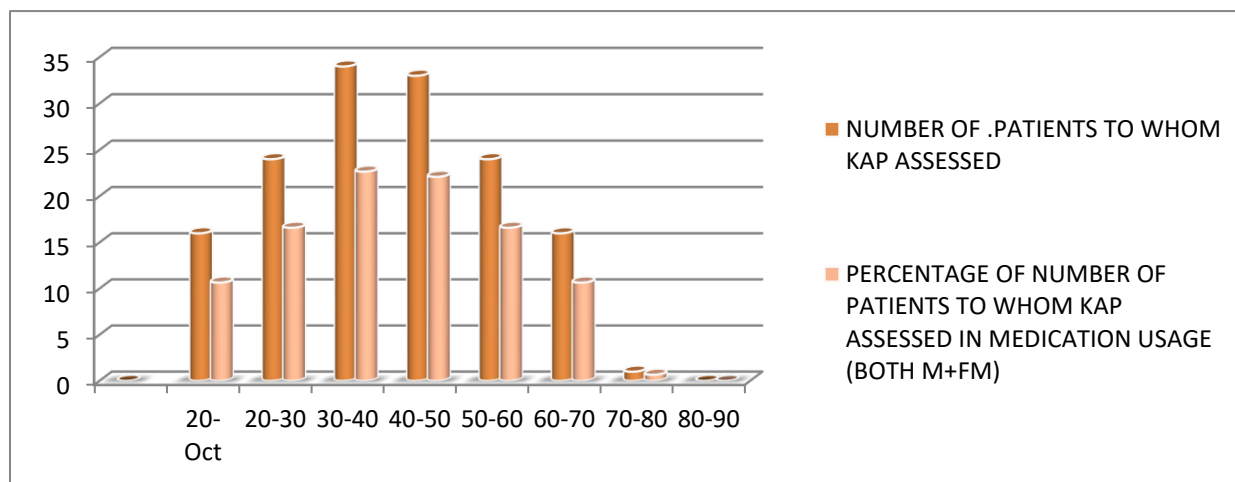


Table No7: Representing The Number as well as percentage of patients To Whom Patient was Counseling Done

S.NO	AGE GROUP OF PATIENTS	NUMBER OF PATIENTS TO WHOM PATIENT COUNSELLING DONE.	PERCENTAGE OF NUMBER OF PATIENTS TO WHOM PATIENT COUNSELLING DONE.
1.	10-20	16	10.66
2.	20-30	24	16.6
3.	30-40	34	22.66
4.	40-50	33	22.1
5.	50-60	24	16.6
6.	60-70	16	10.66
7.	70-80	1	0.666
8.	80-90	0	0
Total=	.	150	100

Figure 7: Representing The Number as well as percentage of patients to Whom Patient Counseling was done.

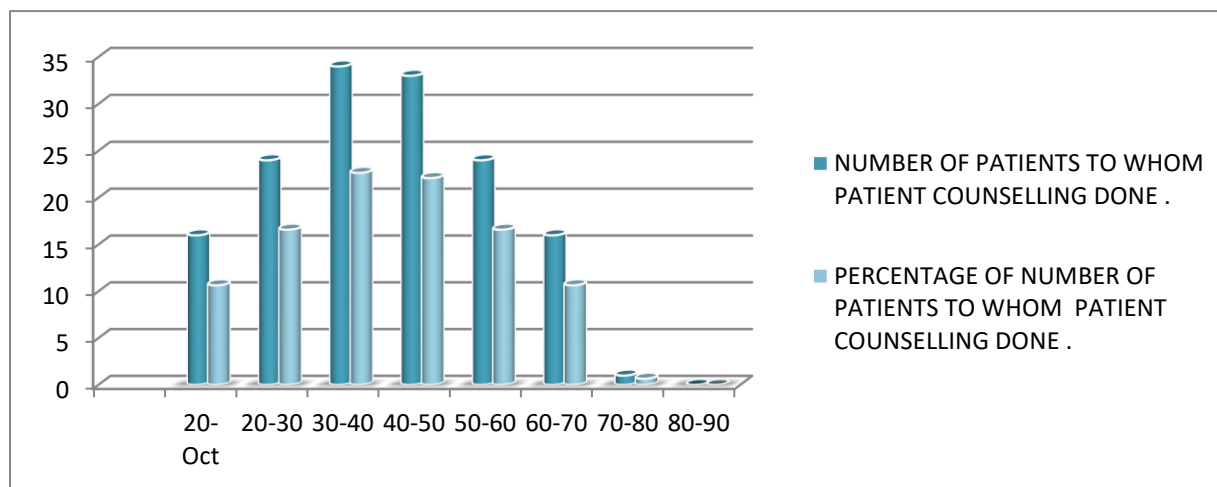


Table No 8: Representing the Number of Patients with Positive Feed Back after Counseling of KAP In Medication Use Of Patients With Chronic Endocrine Disorders:

NUMBER OF PATIENTS WITH POSITIVE FEED BACK AFTER COUNSELING IN GENERAL MEDICINE DEPARMENT (ENDEOCRINOLOGY).	PERCENTAGE OF NUMBER OF PATIENTS IN OBSTETRICS AND GYNAEOCOLOGY WITH FEED BACK
142 OUT OF 150	95% OUT OF 100

Note: A Total of 142 both Male and Female patients expresses their positive feedback after patient counseling.

P-VALUE: The P-VALUE is 0.001 which states the present study is highly significant.