



ASSESSMENT OF PERFORMANCE OF MEDICAL STUDENTS IN DIFFERENT SYSTEMS OF PHARMACOLOGY

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ABSTRACT

The importance of Pharmacology in medical life is enormous. This retrospective, comparative analytical study was undertaken to assess the performance of medical students pertaining to different systems of Pharmacology. The Theory marks obtained in General Pharmacology, Autonomic nervous system, Cardiovascular system, Central nervous system; Endocrinology and Chemotherapy by 263 students belonging to 3 batches were analyzed. Highest mark percentage (>70%) in Chemotherapy and More Failure rates (<50%) in Cardio vascular system, Autonomic nervous system, Central nervous system were observed.

KEY WORDS: Pharmacology, Medical education, Retrospective, Marks , Knowledge

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INTRODUCTION

Pharmacology is the backbone of medicine. However, as a volatile subject it is difficult for the students in reading & recollecting the contents. The Medical Council of India gives guidelines which emphasize on method of assessment of knowledge and skills in Pharmacology [1]. Based on the first examination held by Oxford University in 1958, the examinations would encourage the students to study and improve their knowledge [2]. In view of medical education, it is necessary to assess the performance of medical students [3,5]. The objective of this study was to compare and assess the performance of medical students in different systems of Pharmacology based on their marks obtained in written tests.

MATERIALS AND METHODS:

This Retrospective, Comparative, Analytical study was conducted in Department of Pharmacology, Government Kilpauk Medical College, Chennai after getting approval from the Institutional Ethics Committee. Confidentiality of individual student's score was maintained.

Percentage of marks obtained in the written tests by IInd MBBS students in the Department of Pharmacology, KMC belonging to various batches from the period of

2002 – 2009 were included. The Systems analyzed were General pharmacology (GP), Autonomic nervous system (ANS), Cardio vascular system (CVS), Central nervous system (CNS), Endocrinology and Chemotherapy. The marks obtained by the students were analyzed in following headings

- No of students scoring >70% of marks,
- No of students scoring 50 – 70% of marks
- No of failures (<50% of marks)
- No of absentees in each system in each batch and between the batches.

RESULTS:

On comparing six systems, 24% of students in GP, 17% students in ANS and CNS, 13% of students in CVS, 29% in Endocrinology and 31% of students scored highest mark percentage (>70%). 61% of students in GP, 50% of students in ANS and CNS, 47% of students in Endocrinology, 42% in Chemotherapy got 50-70% marks. Failure rate of <50% of marks were scored by 9% of students in GP, 32% of students in ANS, 31% in CNS, 18% of students in Endocrinology, 24% of students in Chemotherapy. There was not much difference in absentees.

TABLES AND FIGURES:

TABLE1: GENERAL PHARMACOLOGY

MARKS%	BATCH-1%	BATCH-2%	BATCH -3%
>70	17	33	23
50-70	66	61	55
<50	14	05	09
Absentees	02	01	13

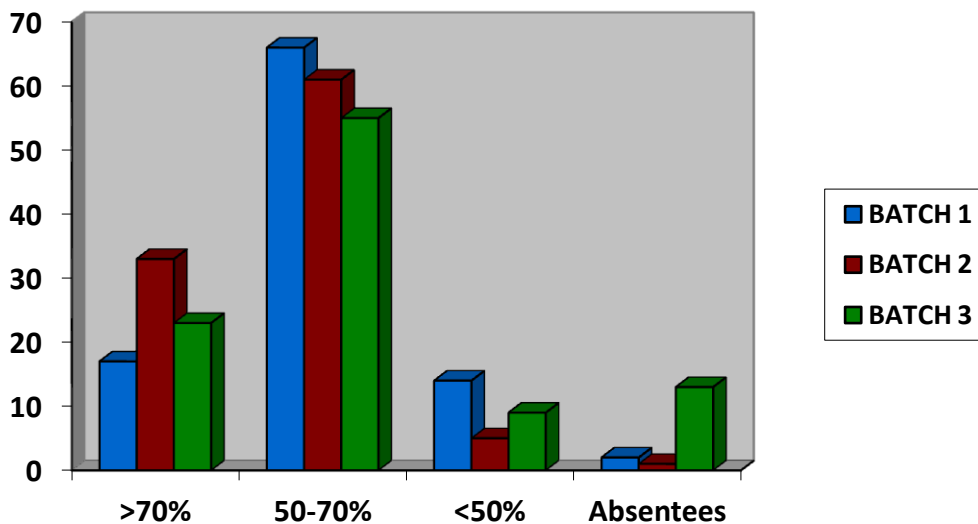


FIGURE 1: GENERAL PHARMACOLOGY

TABLE 2: AUTONOMIC NERVOUS SYSTEM

MARKS%	BATCH-1%	BATCH-2%	BATCH -3%
>70	10	10	30
50-70	58	46	47
<50	32	43	20
Absentees	01	01	03

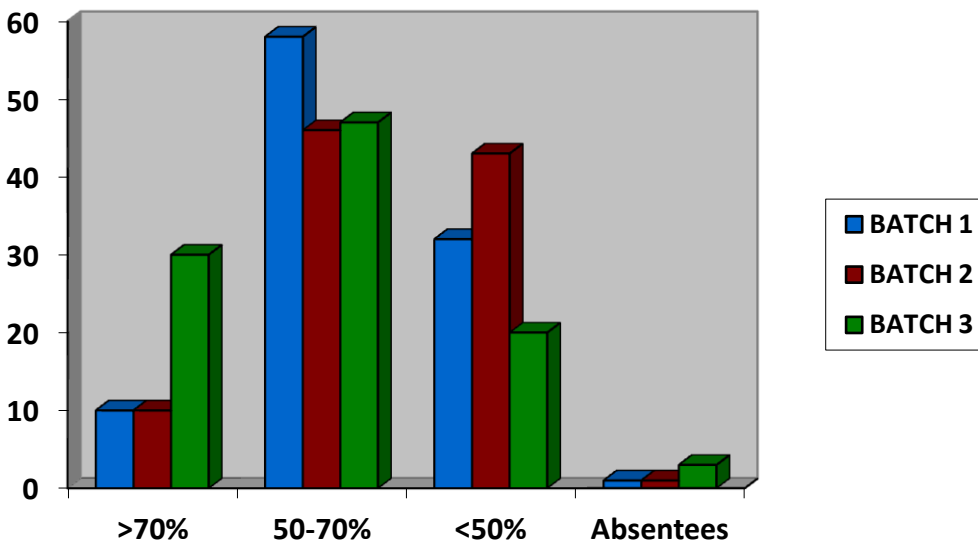


FIGURE 2: AUTONOMIC NERVOUS SYSTEM

TABLE 3: CARDIOVASCULAR SYSTEM

MARKS%	BATCH-1%	BATCH-2%	BATCH -3%
>70	01	22	15
50-70	42	51	42
<50	52	28	34
Absentees	05	00	05

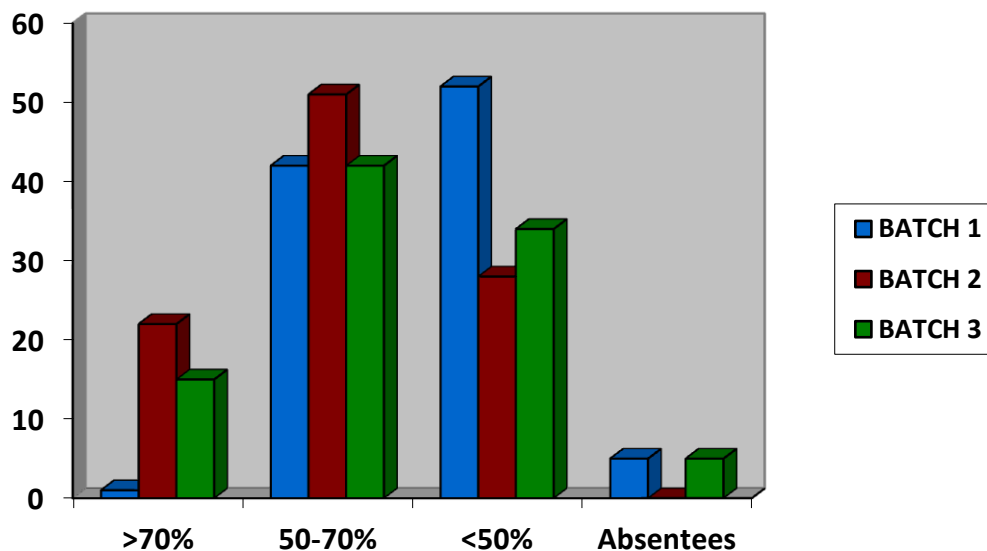


FIGURE 3: CARDIOVASCULAR SYSTEM

TABLE 4: CENTRAL NERVOUS SYSTEM

MARKS%	BATCH-1%	BATCH-2%	BATCH -3%
>70	01	26	24
50-70	57	48	45
<50	40	22	31
Absentees	02	05	00

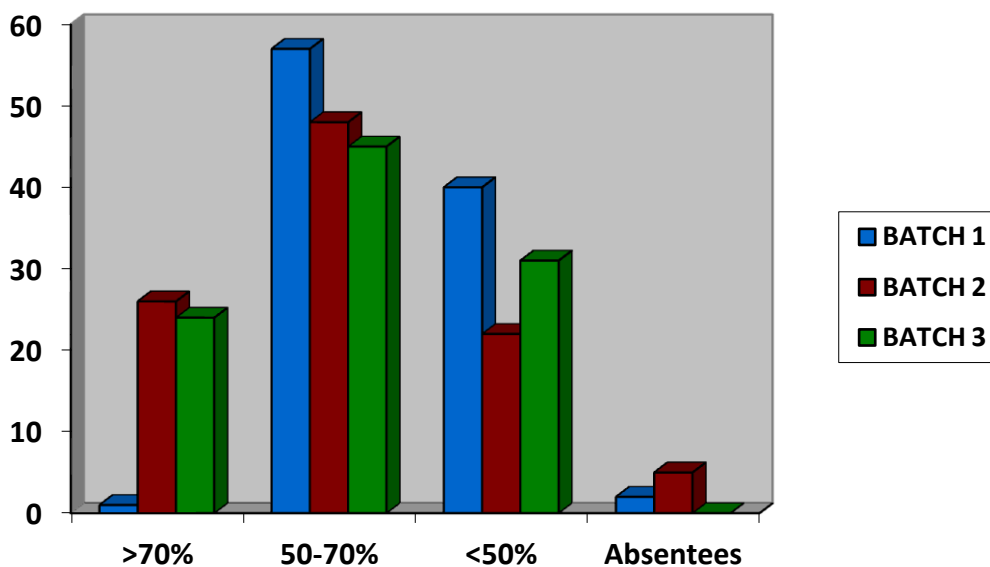


FIGURE 4: CENTRAL NERVOUS SYSTEM

TABLE 5: ENDOCRINOLOGY

MARKS%	BATCH-1%	BATCH-2%	BATCH -3%
>70	42	13	33
50-70	46	54	40
<50	07	31	15
Absentees	05	03	12

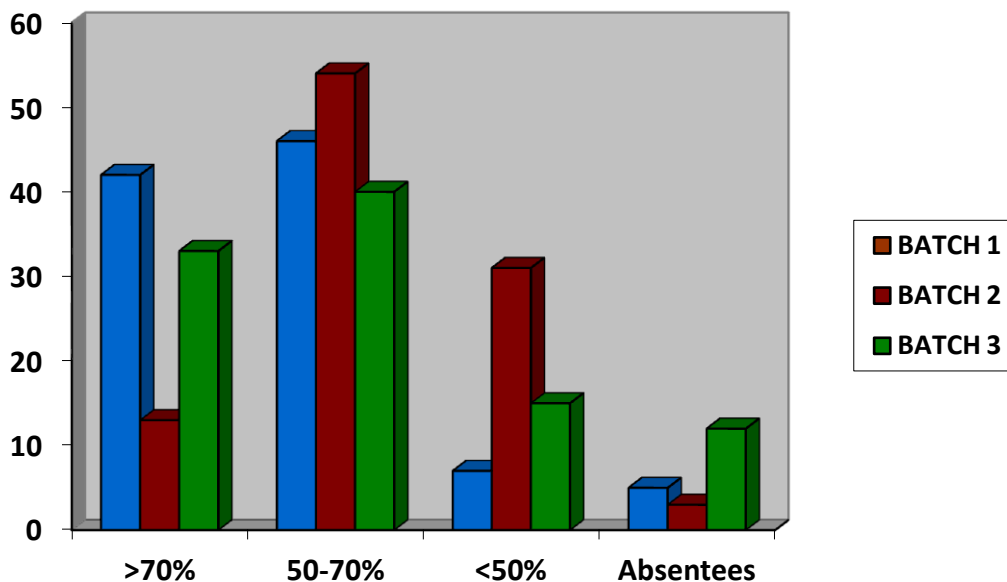


FIGURE 5: ENDOCRINOLOGY

TABLE 6: CHEMOTHERAPY

MARKS%	BATCH-1%	BATCH-2%	BATCH -3%
>70	38	34	21
50-70	43	50	32
<50	16	13	44
Absentees	02	04	03

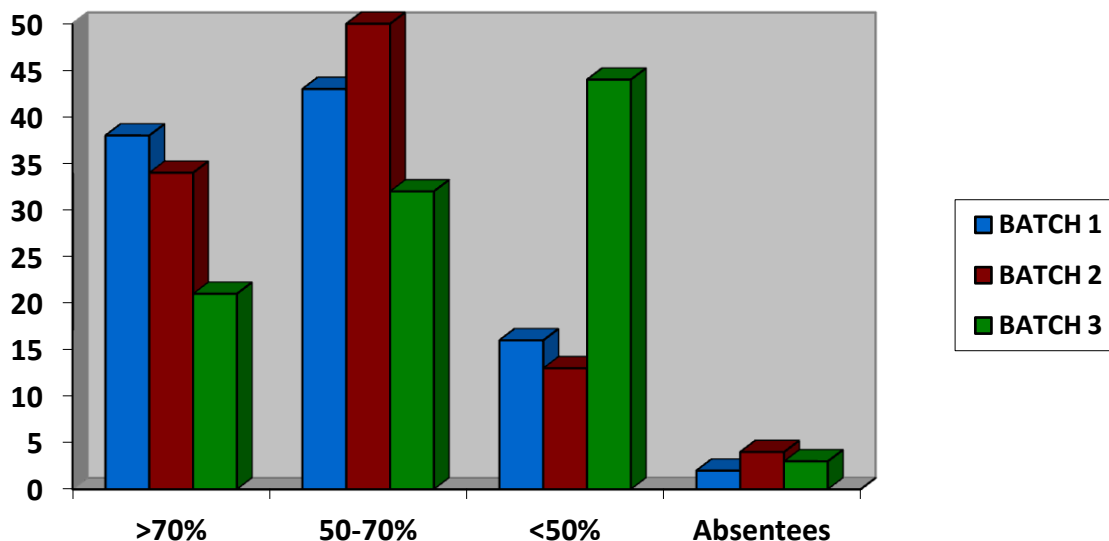


FIGURE 6: CHEMOTHERAPY

DISCUSSION:

The written examination is a useful evaluation format that not only tests students' ability to recall facts, but also can assess higher-order cognitive functions, such as interpretation of data and problem solving skills [4]. The marks obtained by 263 students belonging to 3 batches were analysed in this study. The Highest mark percentage (>70%) was achieved by maximum of 31% of the students in Chemotherapy and minimum of 13% of students in CVS. 61% of students scored average 50-70% marks in GP and there was not much difference in other systems. Considering the failure rate, maximum of 38% in CVS, 32% in ANS, 31% in CNS and minimum of 9% in GP were observed. The failure rates give a view that the students show more interest in studies in the beginning and at the end, as their exams approach.

From the above study, we conclude that the performance of students was not satisfactory in cardiovascular system, Autonomic and Central nervous system. So effective teaching learning sessions can be

implemented for these systems, and at the mid-session of the 18 month period of stay in pharmacology, which will enable the students to develop interest and achieve higher percentage of marks.

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