

A STUDY OF SEASONAL TRENDS IN DELIVERY AND MEDICAL TERMINATION OF PREGNANCY

by

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Abstract

Unlike some animals there is no season for conception in human beings, yet a marked seasonal variation in the number of deliveries and medical termination of pregnancy (MTP) has been observed.

Introduction

In the present paper a time series analysis has been made to study the seasonal variation (monthly variation) in deliveries and medical termination of pregnancies. The data used for the analysis were taken from the records of the department of Obstetrics and Gynaecology and P.P.P., Institute of Medical Sciences, Banaras Hindu University. MTP programme was started in the month of April, 1973. Monthly data on MTP were taken only for three years i.e. from Jan. 1974 to Dec. 1976. The monthly data on deliveries were taken for 4 years i.e. from Jan. 1973 to Dec. 1976.

Material and Methods

Though the hospital accommodation for patients was limited, whenever there was increased influx of delivery or MTP cases,

the patients used hospital floor during lying period and their stay was minimized by early discharge. Since the occurrence of deliveries being a natural phenomenon and has been established from the existence of the human beings, it is expected that drive and non-drive periods of family planning programme may not have immediate impact on the incidence of conception. On the other side, there may be variation in MTP cases. Though a number of Government Orders (dated Feb. 5, 1974; May 25, 1974; March 3, 1975; June 6, 1975; Dec. 15, 1975; Feb. 5, 1976) for strengthening the family planning programme during the reference period (i.e. Jan. 1973 to Dec. 1976) were received and a number of camps were held for the same, not a single MTP case was done in camps and hence hospital data were not influenced by these orders so far as deliveries and MTP cases are concerned. Following statistical methodology of Croxton and Cowden (1956), monthly indices were computed and were presented in Table I.

Results and Discussion

Table I shows monthwise indices of the MTP and deliveries. The medical termination of pregnancy has the highest index (124.74) in the month of april and lowest (65.27) in the month of november, while the indices for deliveries are maximum

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Accepted for publication on 12-4-78.

TABLE I

Seasonal Indices in Deliveries and MTP-achievements from Jan. 1974 to December 1976 and Jan. 1973 to Dec. respectively along with their simple monthly averages

Months	Seasonal Indices		Simple Averages	
	Deliveries	MTP	Deliveries	MTP
January	104.43	72.70	129.75	54.00
February	94.52	105.59	118.00	59.33
March	80.23	72.20	101.00	53.67
April	60.64	124.74	120.50	78.67
May	63.89	115.74	111.25	67.00
June	61.22	111.79	107.50	65.50
July	112.96	82.44	140.25	72.67
August	138.28	120.00	176.50	85.00
September	139.09	120.57	150.75	79.00
October	138.62	104.24	189.75	73.33
November	110.70	65.27	159.25	61.00
December	95.42	104.72	143.50	79.67
Total	1200.00	1200.00	—	—

in august, september and october months and minor in april, may and june. Although there is no mating season for human beings but maximum number of conceptions occur during the winter months for obvious reasons (Kohli *et al*, 1971 and Singh *et al*, 1970) and therefore the index of deliveries is likely to be maximum during the months preceding winter i.e. august to october. Table also shows that MTP had highest score during the month of april and lowest in november. The medical termination of pregnancy is permitted only upto 20 weeks of gestation, therefore the patients conceiving during winter months i.e. november to february are likely to report for termination in early summer to late monsoon season. Monthwise simple averages in deliveries and MTP are also computed and presented in Table I to compare the seasonal indices. Table shows that there was little variation in the indices of MTP

from april to october excepting the months of july.

Conclusions

The study is concluded with the remarks that deliveries had the maximum indices during August to October months and MTP, on the other hand, had maximum score in the month of April.

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