THE ANALYSIS OF HEALTHCARE DYNAMICS IN EGYPT

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INTRODUCTION:

HEALTHCARE IN EGYPT VARIES IN FEES, WAITING TIMES, AND QUALITY RATINGS. THIS POSTER EXAMINES THESE DIFFERENCES, FOCUSING ON FEES AMONG SPECIALIZATIONS, THE LINK BETWEEN RATINGS AND WAITING TIMES, AND THE IMPACT OF FEES ON RATINGS. UNDERSTANDING THESE FACTORS CAN IMPROVE PATIENT EXPERIENCES AND GUIDE HEALTHCARE POLICY.

RESEARCH QUESTION:

1-HOW DO FEES VARY ACROSS DIFFERENT SPECIALIZATIONS IN EGYPT?
2-DOES THE FEES INFLUENCE THE VIEWS OF THE DOCTOR?
3-DOES THE WAITING TIME INFLUENCE THE FEES?
4-DOES THE LOCATION OF THE DOCTOR'S CLINIC INFLUENCE THE FEES?

ANALYSES:

FIRST HYPOTHESIS:

-NULL HYPOTHESIS (H0): THERE'S NO SIGNIFICANT DIFFERENCE IN FEES ACROSS DIFFERENT SPECIALIZATIONS
-ALTERNATIVE HYPOTHESIS(H1): THERE'S A SIGNIFICANT DIFFERENCE IN FEES ACROSS DIFFERENT SPECIALIZATIONS

AFTER DOING THE ANOVA TEST THE P VALUE TURNED TO BE LESS THAN 0.05 SO WE REJECTED THE NULL HYPOTHESIS

FOURTH HYPOTHESIS:

THE LOCATION OF THE DOCTOR'S CLINIC DOES INFLUENCE THE FEES.
-NULL HYPOTHESIS(H0): THE LOCATION DOESN'T AFFECT THE FEES
-ALT HYPOTHESIS(H1): THE LOCATION AFFECT THE FEES

AFTER CALCULATING THE P-VALUE FROM THE ANOVE TEST IT TURNED OUT TO BE LESS THAN 0.05 SO WE REJECTED THE NULL HYPOTHESIS AND AFTER GETTING THE BOX PLOT AND SCATTER PLOT IT TURNED OUT THAT THERE'S SIGNIFICANT DIFFERENCE BETWEEN LOCARIONS AND FEES

SECOND HYPOYHESIS:

- NULL HYPOTHESIS(H0): PEARSON R =0 THAT MEANS THAT THERE IS NO RELATION BETWEEN THE FEES AND THE DOCTOR VIEWS
- ALTERNATIVE HYPOTHESIS(H1): PEARSON R! =0 THAT MEANS THAT THERE IS A RELATION BETWEEN THE FEES AND THE DOCTOR VIEWS (NON-DIRECTIONAL RELATION)

- WE USED PEARSON R TO IDENTIFY IF THEIR S A RELATION BETWEEN THE FEES AND THE DOCTOR VIEWS AND AFTER THAT WE CALCULATED THE P VALUE TO SEE IF THE RESULT IS STATISTICALLY SIGNIFICANT AND REJECT THE NULL HYPOTHESIS.
- PEARSON CORRELATION COEFFICIENT: 0.19768085354297604 AND SINCE IT IS POSITIVE THAT MEANS THAT THERE IS A POSITIVE RELATION BETWEEN THE DOCTOR VIEWS AND THE FEES.
P-VALUE: 4.007676045122018E-09 IS SMALLER THAN 0.05 AND THAT MEAN THAT WE WILL REJECT THE NULL HYPOTHESIS.

THIRD HYPOTHESIS:

- NULL HYPOTHESIS(H0): PEARSON R =0 THAT MEANS THAT THERE IS NO RELATION BETWEEN THE FEES AND THE WAITING TIME
- ALTERNATIVE HYPOTHESIS(H1): PEARSON R !=0 THAT MEANS THAT THERE IS A RELATION BETWEEN THE FEES AND THE WAITING TIME (NON-DIRECTIONAL RELATION)
- WE USED PEARSON R TO IDENTIFY IF THEIR S A RELATION BETWEEN THE FEES AND THE DOCTOR VIEWS AND AFTER THAT WE CALCULATED THE P VALUE TO SEE IF THE RESULT IS STATISTICALLY SIGNIFICANT AND REJECT THE NULL HYPOTHESIS.
- PEARSON CORRELATION COEFFICIENT: 0.07502645417816026AND SINCE IT IS POSITIVE THAT MEANS THAT THERE IS A POSITIVE RELATION BETWEEN THE DOCTOR VIEWS AND THE FEES.
P-VALUE: 0.02681671457933881S SMALLER THAN 0.05 AND THAT MEAN THAT WE WILL REJECT THE NULL HYPOTHESIS.

- THIS IS A REGRESSION LINE THAT SHOW THE RELATION BETWEEN THE FEES AND THE DOCTOR VIEWS.

HYPOTHESIS

- There are significant differences in consultation fees among different medical specializations in Egypt.
-Higher consultation fees are associated with a higher number of views for the doctor.
- Shorter waiting times are associated with higher consultation fees.
-Doctors located in more central or affluent areas charge higher consultation fees.

DATASET

THE DATASET CONTAINS 1200 DOCTORS, AND AFTER THE DATA WAS FILTERED, IT BECAME 870. THE DATA CONTAINS THE SPECIALIZATION, AVERAGE RAITING , WAITING TIME, LOCATION, PRICE, RATE COUNT AND DOCTOR VIEWS.

NUMBER OF SAMPEL USED: 870

CONCLUSION

THIS STUDY EXAMINED THE FACTORS INFLUENCING DOCTOR FEES IN EGYPT, INCLUDING SPECIALIZATIONS, DOCTOR VIEWS, WAITING TIMES, AND CLINIC LOCATIONS. WE FOUND SIGNIFICANT FEE DIFFERENCES ACROSS SPECIALIZATIONS, A POSITIVE CORRELATION BETWEEN FEES AND DOCTOR VIEWS, A SLIGHT POSITIVE CORRELATION BETWEEN FEES AND WAITING TIMES, AND A SIGNIFICANT IMPACT OF CLINIC LOCATION ON FEES. THESE INSIGHTS CAN HELP PATIENTS MAKE INFORMED CHOICES AND GUIDE POLICYMAKERS TO IMPROVE HEALTHCARE ACCESSIBILITY AND QUALITY.