SPSS "Statistical Package for Social Sciences " which is a software program , consist of two sheets ; variable view sheet and data view sheet. used for comprehensive and flexible statistical analysis and data management.

We mainly use numerical level of measurement with SPSS although we have other options.

In SPSS once you input your data in small clicking you get the result , it's also gives options like recalculations or modulation and You only need to know the tests you want to conduct, not how to compute them " this is important to know the test you want if you have on idea about your test you must ask professional person , he will help in your statistical procedure "

The software should not make errors in calculation unless it was human error and Many different approaches needed on data

In data entry there is something we called spread sheet , there are two mains spread sheet the first one for specification of variables : input your variables levels of measurement for each variable and the second one for the data which were collected from your subjects. So Rows are subjects and columns are variables .

Manual Check: Nothing can replace another pair of eyes to check over a data set. Either check your data entry, input & manipulation yourself, or get somebody else to do it. The more important the data, the more careful the check. But now days we are begin using electronic check .

Univariate Analyses : uni meaning one , variate from variables that mean we deal with variables separately .. this is useful in

\* cleaning & checking data quality

\* examining data variability

\* describing the sample

\* checking statistical assumptions prior to performing more complex analyses

The most common and useful way to present our data is using tables which condenses data into a form that can make them easier to understand and shows many details in summary fashion but Since table shows only numbers, it may not be readily understood without comparing it to other values that's way the table contain rows and columns to make the data more easy to be understood

To construct table try to   
1 . Don’t try to do too much in a table لا تعجق الدنيا ع قولت الدكتور

2 . Use white space effectively to make table layout pleasing to the eye

3. Make sure tables & test refer to each other

4. Use some aspect of the table to order & group rows & columns

5. If appropriate, frame table with summary statistics in rows & columns to provide a standard of comparison

6. Round numbers in table to one or two decimal places to make them easily understood.

7. When creating tables for publication in a manuscript, double-space them unless contraindicated by journal

The second way to presenting data is the chart : which is Visual representation of a frequency distribution that helps to gain insight about what the data mean

the chart should be simple as you can and easy to read , placed correctly within text " first the text then the table " , use color only when it has a purpose, not solely for decoration , make sure others can understand chart; try it out on somebody first and remember: " A poor chart is worse than no chart at all "

1 ) bar chart : simplest form of chart, used to display nominal or ordinal data

When we say nominal data we mean data like gender , types of hospital , types of medical diagnosis … etc , it's better to use bar chart or single bar chart also we can make it horizontal as option we have on SSPS software or cluster bar chart which help us to deal with more variables than single or horizontal charts

But when we talk about continuous variables or ratio data like means of heart rate or means of auto saturation of patients the best way to presenting data is line chart

2 ) pie chart : used as alternative to bar chart , it is circle partitioned into percentage distributions of qualitative variables with total area of 100%

3 ) Histogram chart : important in epidemiologic data (epidemiology the branch of medicine that deals with the incidence, distribution, and possible control of diseases and other factors relating to health )

This chart not alternative of bar chart ( bar chart can give up to 10 bars but histogram can give more ) , the other important thing is the curve which is important with continuous data.

\* continuous data best presented by histogram chart

Also it is appropriate for interval, ratio and sometimes ordinal data , Similar to bar charts but bars are placed side by side , Often used to represent both frequencies and percentages and Most histograms have from 5 to 20 bars and now with the new option we get more bars with histogram .

4 ) polygon : alternative to histogram

Now the Dr shows articles as examples of tables and charts

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