

Epidemiology of Tuberculosis

1. Background:

The existing problem is spreading out of Tuberculosis as an epidemic. Majority of the population is having Tuberculosis as one of their effective diseases having greater impact over population and lives of people.

This is considered as an important issue to the study as it represents the major difficulties people are facing due to this epidemic. The significance lies in the concept of improving the health and values of society as well as societal values.

2. Objectives

The vital objective of the study is to incorporate the major findings that will be helpful in reducing the epidemic of Tuberculosis and will be effectively reduce the life risk of Tuberculosis.

- Reducing the dilemma of tuberculosis from society with proper measures
- Defining the values of epidemiological studies for reduction of health issues
- Acknowledgement of proper methods of health issue prevention

3. Study population

The population selected for the study are the general people or inhabitants of the society as well as health care professionals from different health care centres. As the authors are trying to generalize their findings, the population are selected randomly based on two considerations,

- i. People, who are affected by Tuberculosis
- ii. Staffs of different health care organizations working for preventing the diseases outspread

4. Type of Study

This study can be considered as one mixture of two different types, which are, cohort and case control. This study also incorporates the valuations of clinical trials as well. The study that is a disorder of health related symptoms and persistent after one set is noted as a cohort study. Again,

as the disease is spreading like an epidemic, the situation lies as a case control study. Clinical trials have also been included within the same as the resultant measures are considered after an accurate clinical trial as well as counter measures.

5. Description of Study Sample

This section includes the description of the study via different parametric descriptions such as size of the samples, recruitment strategies, inclusion criteria, exclusion criteria and randomization. All these parameters are stated for a detailed description of the study.

1. **Sample Size-** The selected sample size is 100 as 100 respondents are selected for the study. Majority of the respondents are people inhabiting within the society and having Tuberculosis. 50% of the samples are staffs and healthcare professionals of different health care centres, who are participating in treatment actions for preventing and reducing the risk factors of this disease.
2. **Recruiting Strategies-** The recruiting strategies are selection of the samples based on their experience on the study disease. The majority of the people selected includes Tuberculosis and rest of the samples are health care professionals having experience on prevention measures of the disease (Althubaiti, 2016).
3. **Inclusion criteria-** The inclusion criteria of the samples are variable with the measures of Tuberculosis. For the patients, who are taken as samples are affected with the Tuberculosis disease. For the health care professionals, who are taken as samples, has the criteria of more than 5 case experience with the study disease so that all the findings may come out should be accurate to the facts.
4. **Exclusion Criteria-** The exclusion criteria for selection of candidates include no experience with the study topic for the professionals and random people, who do not have Tuberculosis.
5. **Randomization-** Randomization is done at the time of sampling as randomization is helpful for the selection of candidates from diversified backgrounds. The Randomization is helpful for the study as diversified insights can be collected using differential resources. The resources are taken for the technicality in selected study and

methodologies. The methods are useful for different findings that can come from methodological persuasions.

6. Control Group

Yes, there was a control group acting towards the study for incorporating useless inclusions. Mainly, the exclusions were measured by the control group. The control group was placed in differential demographic places, as the control groups were there to control the selected respondents. Variation was descriptive for the control group as the control group was examining any unethical activities as well as sample control.

6. Statistical Analyses

Different statistical analyses were performed during the study was conducted. The statistical analyses included are AUC, SRD and NNT.

AUC is the measurement of probability, as the AUC is the probability for low-risk individual will include a better outcome than the high risk one. Any type of ties are broken with the help of a fair coin toss.

$$AUC = .5(S_0(T) - S_1(T) + 1).$$

SRD is the abbreviation for Success Rate Difference is the measureable difference between the probability of high risk individual and a low risk individual. Although, the counters are argued as high risk will have better outcomes than low risk. The calculations of the measurement are done as,

$$SRD = S_0(T) - S_1(T) = 2AUC - 1 \text{ (in epidemiology, SRD is usually called the risk difference).}$$

NNT stands for Number Needed To Take is equal to $1/SRD$ or $1/(2AUC-1)$.

7. Results

The results are mainly univariate as the co founders are unable to control the results, rather than multivariate, in which the results are controlled for potential cofounders. Hence, the results are

taken as the best possible results for the accurate statistical analyses techniques. Results are considered univariate for the preferability of differential measures (Polanczyk *et al.*, 2015).

8. Conclusion

It can be concluded that the depending on the statistical analyses as well as measurement techniques, the results are assumed to be the best possible results as the professionals have put much effort on the examination for the disease and the reasons behind the spread out of the disease. The populace chose for the investigation are the general individuals or occupants of the general public just as human services experts from various social insurance focuses. The indispensable goal of the investigation is to fuse the real discoveries that will be useful in diminishing the pestilence of Tuberculosis and will be viably decrease the existence danger of Tuberculosis. The current issue is spreading out of Tuberculosis as a plague. Dominant part of the populace is having Tuberculosis as one of their compelling ailments having more prominent effect over populace and lives of individuals. This is considered as a significant issue to the examination as it speaks to the real challenges individuals are looking because of this scourge. The noteworthiness lies in the idea of improving the wellbeing and estimations of society just as societal qualities.

9. Agreement

Yes, I totally agree with the conclusions as the conclusions are accurate to the facts of parametric calculation for the solutions. The conclusion is also helpful for any future statistical analysis regarding health related issues.

10. Biasness and flaws

The study did not incorporate any biasness towards the examination as it was examined by high end professionals of health care services. The biasness was reduced to zero using the control groups, where the control groups were included for developing counter measures regarding unethical conducts within the examination of the study (Zhong, Agha & Baccarelli, 2016). The people decided for the examination are the general people or inhabitants of the overall population similarly as human administrations specialists from different social protection centres. The

biasness was diminished to zero utilizing the control gatherings, where the control bunches were incorporated for growing counter measures in regards to unscrupulous directs inside the examination of the investigation.

References

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