Chettinad
Dental College & Research Institute

DEPARTMENT OF PUBLIC HEALTH DENTISTRY
Post Graduate Session Reports
Reports for Week 3 (15.06.2020 to 20.06.2020)

S.NO	Date	Lecture Topic	Faculty	PG's
1.	15.06.2020	S1-Measures of Central Tendency S2 – Measures of Dispersion	Dr. Jagannath G V Dr.Jagannath G V	DrNiveditha DrSujatha Dr.Sujatha
2.	16.06.2020	S1- Data Distribution S2- Sampling	Dr. Jagannath.G.V Dr. Jagannath.G.V	DrSujatha DrSujatha
3.	17.06.2020	S1-Probablity Sampling S2-Non Probablity Sampling	Dr. Jagannath.G.V Dr. Jagannath.G.V	DrSujatha DrSujatha
4.	18.06.2020	S1- Revision of Biostatistics S2-Critical appraisal of scientific research	DrJagannath .G.V DrJagannath G.V	DrSujatha DrSujatha
5.	19.06.2020	S1- Seminar on Pain	DrJagannath G.V	DrSujatha
6.	20.06.2020	S1-Study designs	Dr.Jagannath GV.	DrSujatha

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DEPARTMENT OF PUBLIC HEALTH DENTISTRY

e-DISCUSSION FOR POSTGRADUATES

Date:15-06-2020
Session I: 10.45 am – 11.30 am

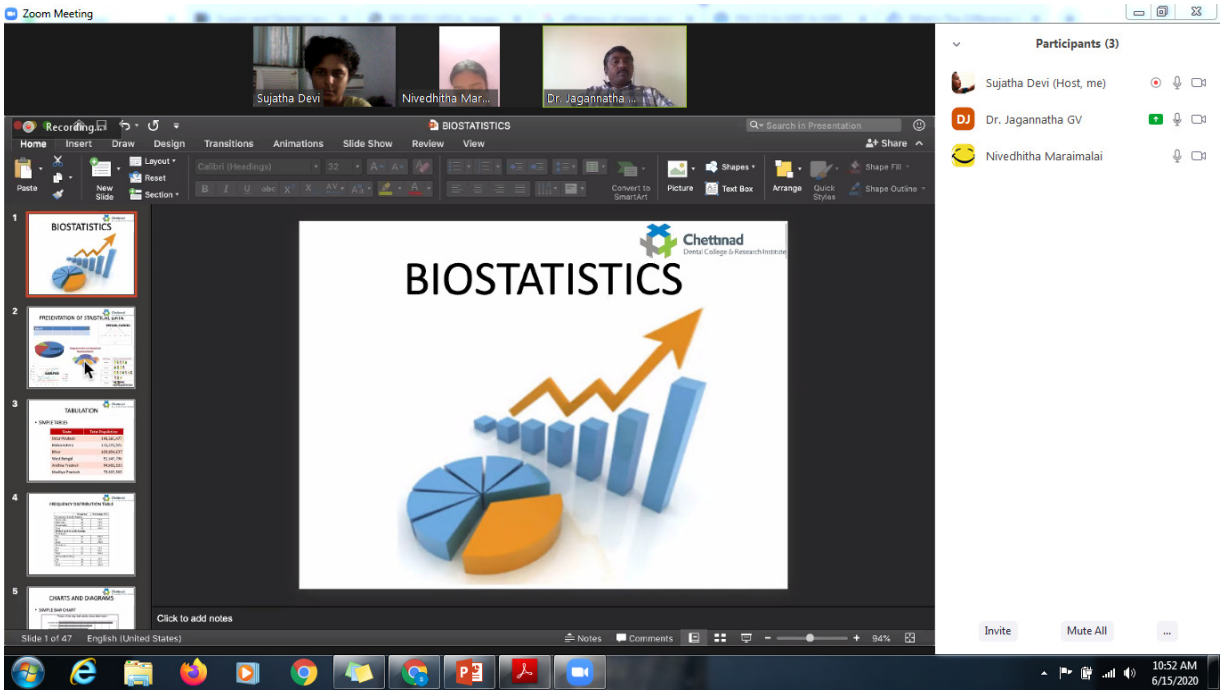
Faculty: Dr. Jagannatha G.V

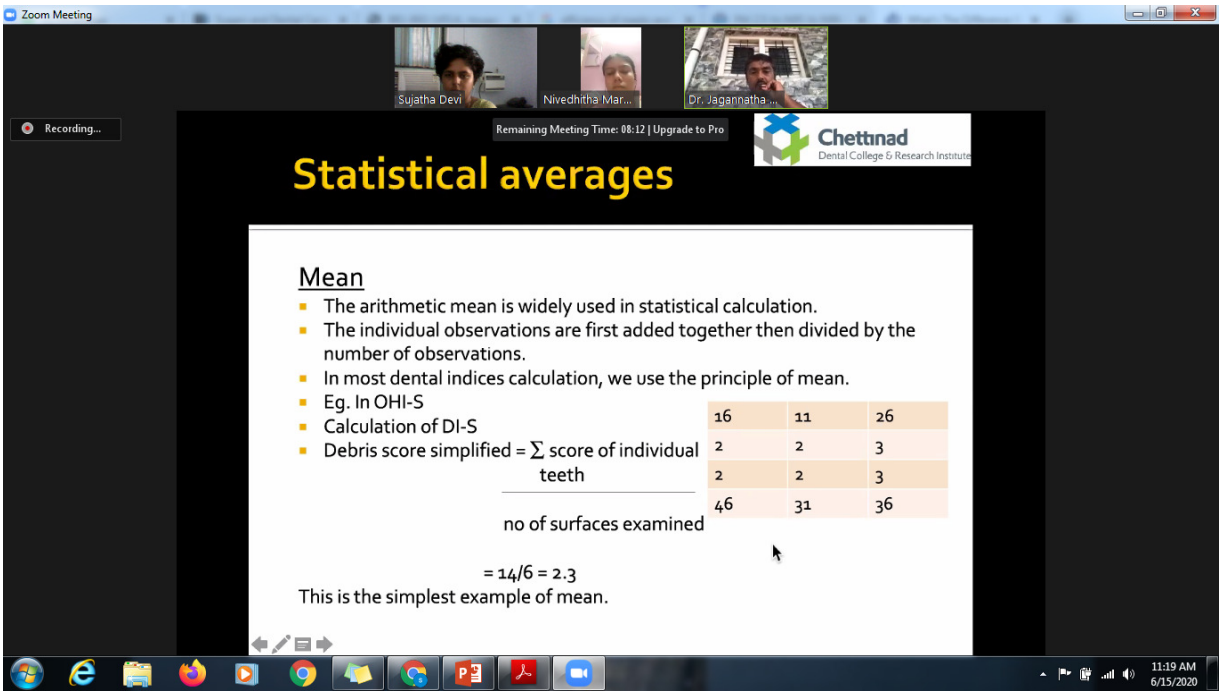
PG Students: Dr.Sujatha Devi
Dr.Niveditha

Total No of PG Students: 2/2

Discussion topic: Biostatistics
Sub Topic **:** Measures of central tendency
Summary **:**

A brief introduction about the various measures of tendency Mean, Median and Mode were explained. What is central tendency, its importance in measurements were briefed about. Mean, Median ,Mode its differences, explanation, how they are calculated were explained with suitable examples. The advantages and disadvantages, its formula for calculation were also explained. The difference between sample mean and population mean, its difference, use, ways of measurement and expression were also explained.




Zoom Meeting
Sujatha Devi
Nivedhitha Mar...
Dr. Jagannatha ...
Recording...
Remaining Meeting Time: 08:12 | Upgrade to Pro
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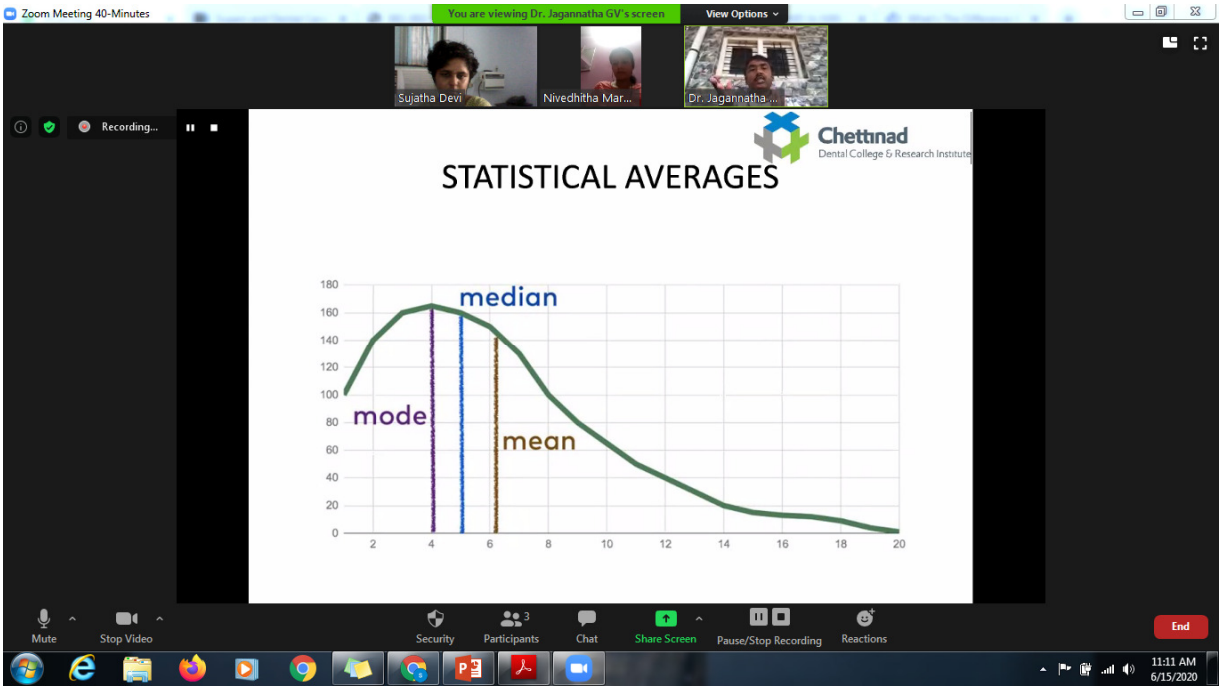
Statistical averages
Mean
The arithmetic mean is widely used in statistical calculation.
The individual observations are first added together then divided by the number of observations.
In most dental indices calculation, we use the principle of mean.
Eg. In OHI-S
Calculation of DI-S
Debris score simplified = ∑ score of individual teeth / no of surfaces examined
16 11 26
2 2 3
2 2 3
46 31 36
= 14/6 = 2.3
This is the simplest example of mean.
11:19 AM
6/15/2020


Zoom Meeting 40-Minutes
You are viewing Dr. Jagannatha GV's screen
View Options
Sujatha Devi
Nivedhitha Mar...
Dr. Jagannatha ...
Recording...
Chettinad
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STATISTICAL AVERAGES
median
mode
mean
180
160
140
120
100
80
60
40
20
0
2
4
6
8
10
12
14
16
18
20
Mute
Stop Video
Security
Participants
3
Chat
Share Screen
Pause/Stop Recording
Reactions
End
11:11 AM
6/15/2020

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DEPARTMENT OF PUBLIC HEALTH DENTISTRY

e-DISCUSSION FOR POSTGRADUATES

Date:15-06-2020
Session II: 5.30pm- 6.30 pm

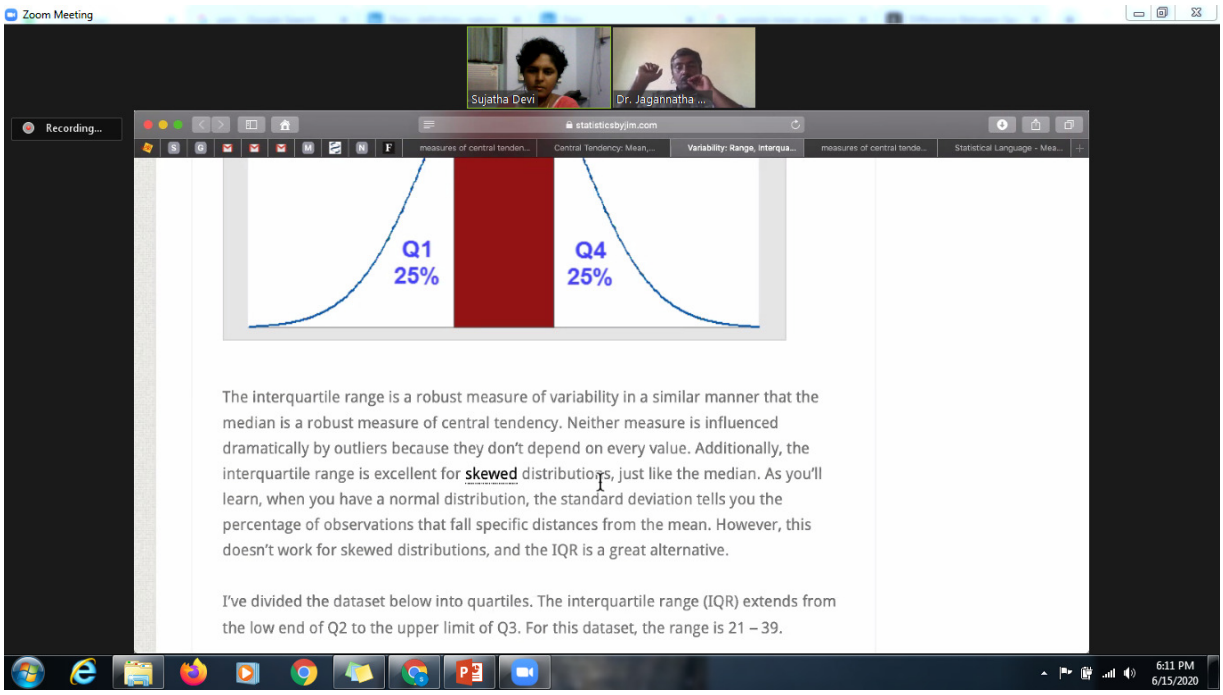
Faculty: Dr. Jagannatha G.V

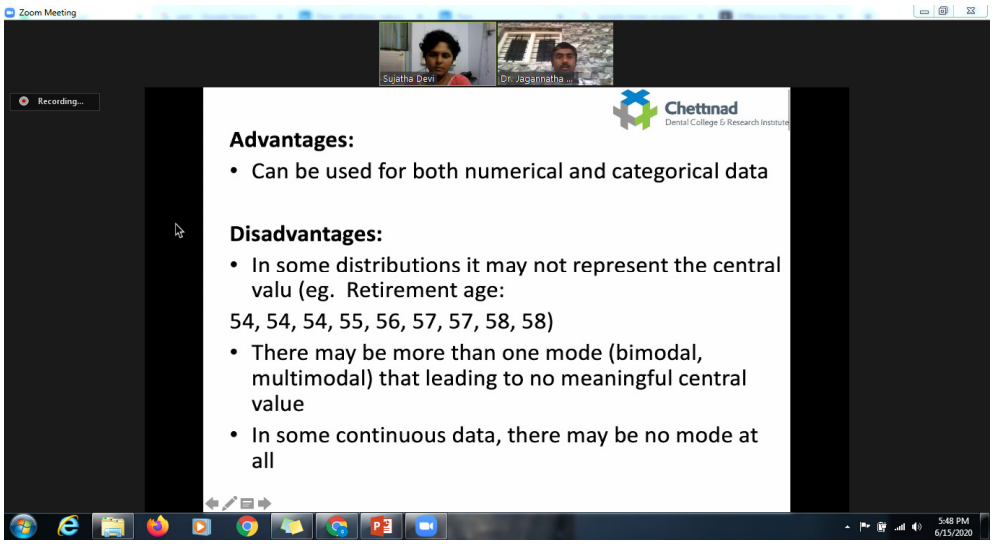
PG Students: Dr.Sujatha Devi

Total No of PG Students: 1/2

Discussion topic: Biostatistics
Sub Topic : Measures of Dispersion
Summary :

The difference between central tendency and measures of dispersion was explained. the different types of measures of tendency like standerd deviation, variance and mean deviation and range were explained in brief. The definition of standard deviation, mean deviation, variance, how to measure them, their use in analysis were explained with examples. the formulae for calculation, its advantages and disadvantages were also briefed about. the sample variance and population variance and its metho of calculation and uses were briefed about.




Zoom Meeting
Recording...
Sujatha Devi
Dr. Jagannatha ...
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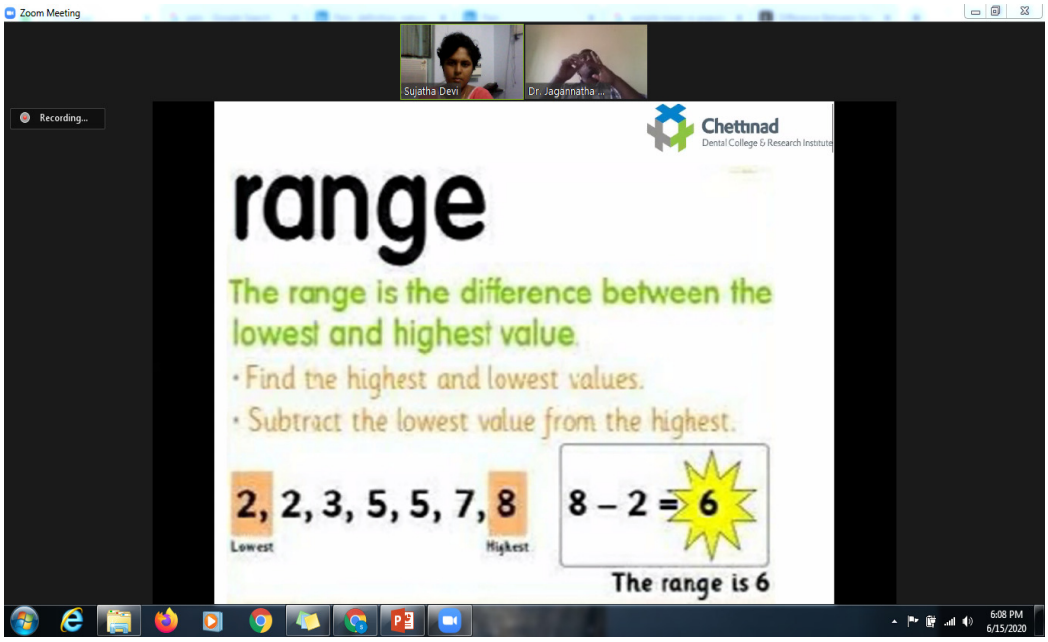
Advantages:
• Can be used for both numerical and categorical data
Disadvantages:
• In some distributions it may not represent the central valu (eg. Retirement age:
54, 54, 54, 55, 56, 57, 57, 58, 58)
• There may be more than one mode (bimodal, multimodal) that leading to no meaningful central value
• In some continuous data, there may be no mode at all
5:48 PM
6/15/2020


Zoom Meeting
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Dr. Jagannatha ...
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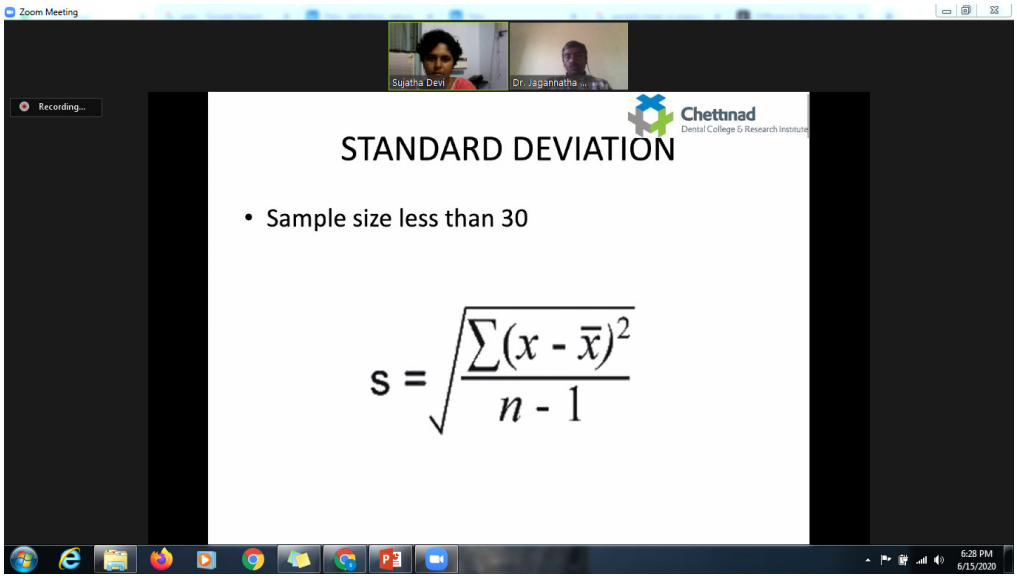
range
The range is the difference between the lowest and highest value.
• Find the highest and lowest values.
• Subtract the lowest value from the highest.
2, 2, 3, 5, 5, 7, 8
Lowest
Highest
8 – 2 = 6
The range is 6
6:08 PM
6/15/2020


Zoom Meeting
Sujatha Devi
Dr. Jagannatha ...
Recording...
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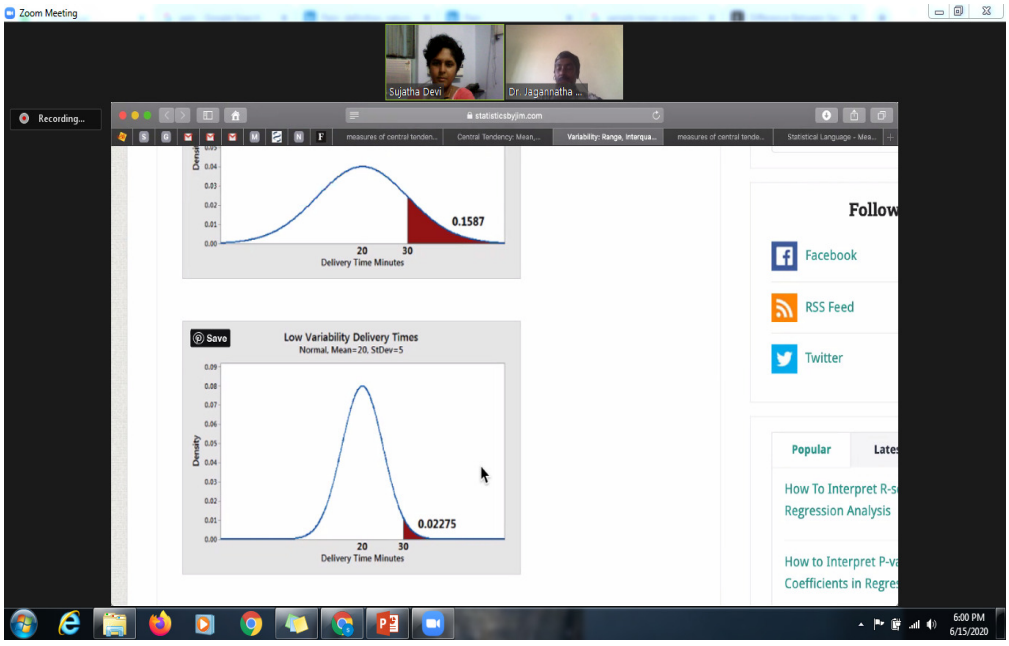
STANDARD DEVIATION
• Sample size less than 30
$s = \sqrt{\frac{\sum(x - \bar{x})^2}{n - 1}}$
6:28 PM
6/15/2020


Zoom Meeting
Sujatha Devi
Dr. Jagannatha ...
Recording...
statisticsbyjim.com
0.1587
20
30
Delivery Time Minutes
Save
Low Variability Delivery Times
Normal, Mean=20, StDev=5
Density
0.02275
20
30
Delivery Time Minutes
Follow
Facebook
RSS Feed
Twitter
Popular
How To Interpret R-s
Regression Analysis
How to Interpret P-va
Coefficients in Regres
6:00 PM
6/15/2020

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DEPARTMENT OF PUBLIC HEALTH DENTISTRY

e-DISCUSSION FOR POSTGRADUATES

Date:16-06-2020
Session I: 10.45 am – 11.30 am

Faculty: Dr. Jagannatha G.V

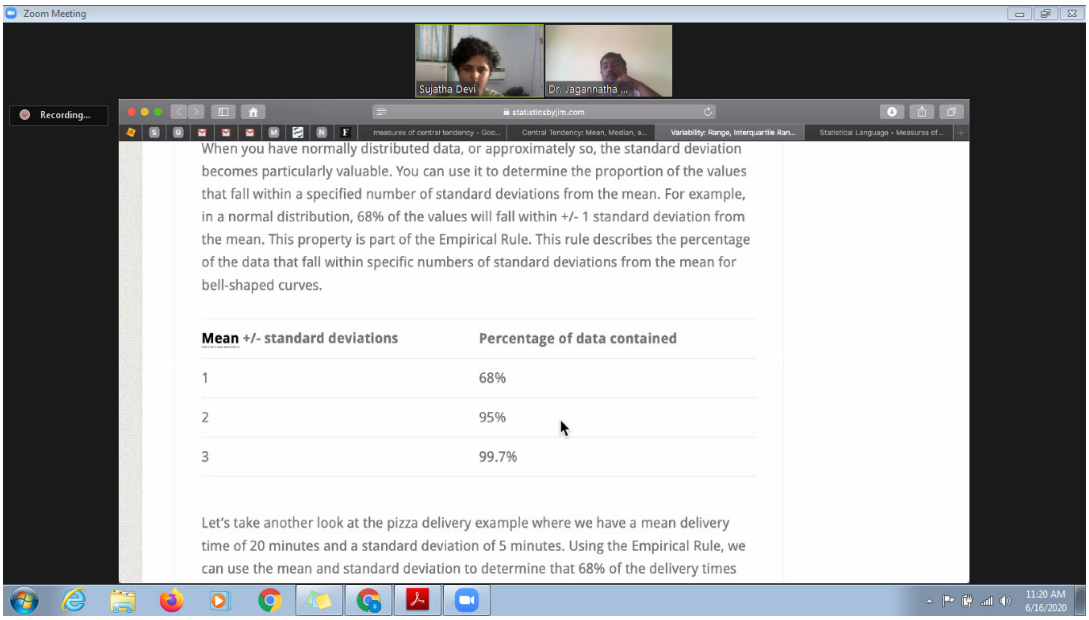
PG Students: Dr.Sujatha Devi

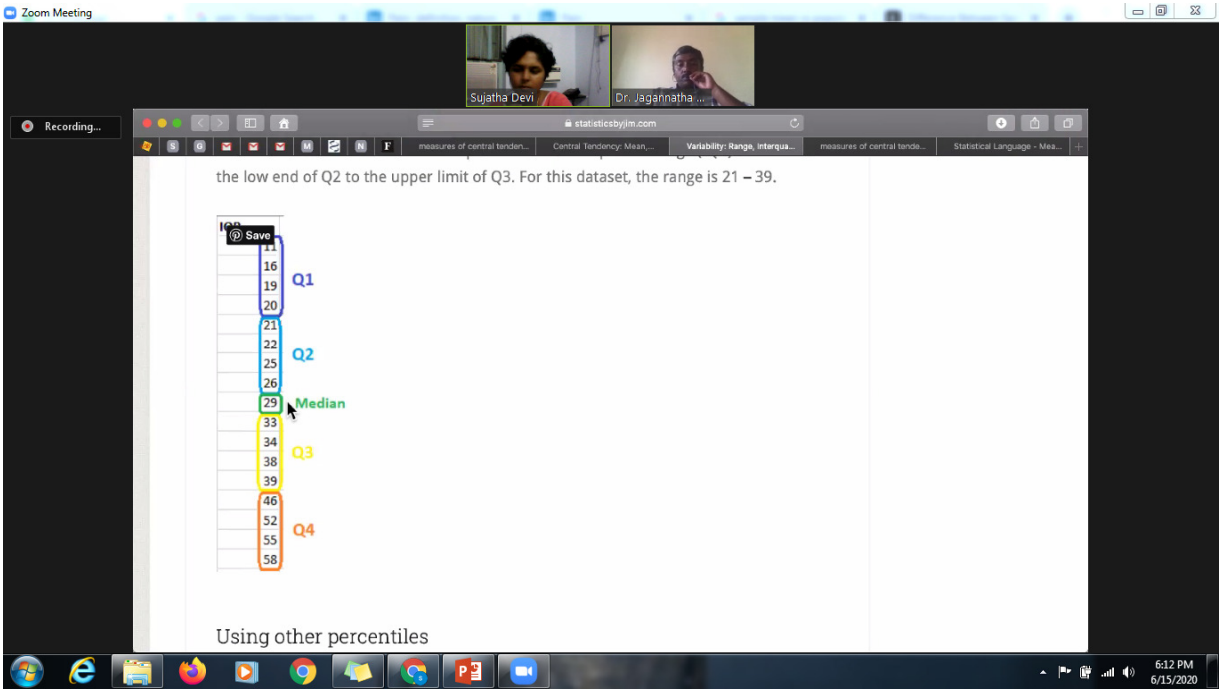
Total No of PG Students: 1/2

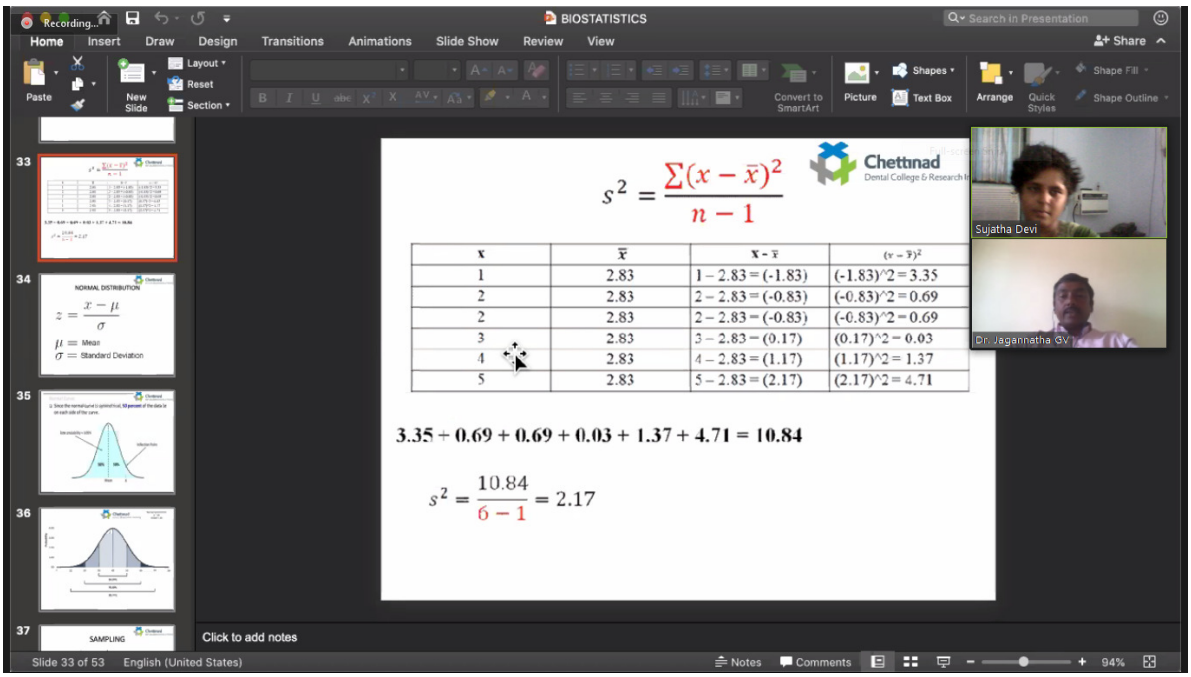
Discussion topic: Data distribution types – Normal and Skewed

Summary :

A brief recap about the measures of central tendency and measures of dispersion was given. The different types of data distribution normal type and skewed type were explained in brief. The normal distribution, the chances of getting a normal distribution high in biological variables and in large population was explained.the various parameters used to measure normal, skewed , continuous and discrete data were explained in brief. The concept of inflection point was explained in brief with suitable examples.




Zoom Meeting
Sujatha Devi
Dr. Jagannatha ...
Recording...
statisticsbyjim.com
the low end of Q2 to the upper limit of Q3. For this dataset, the range is 21 – 39.
Save
16
19
20
21
22
25
26
29
33
34
38
39
46
52
55
58
Q1
Q2
Median
Q3
Q4
Using other percentiles
6:12 PM
6/15/2020


Recording...
BIOSTATISTICS
Home
Insert
Draw
Design
Transitions
Animations
Slide Show
Review
View
Share
Chettinad
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$s^2 = \frac{\sum(x - \bar{x})^2}{n - 1}$
x̄
x - x̄
1 2.83 1 – 2.83 = (-1.83) (-1.83)^2 = 3.35
2 2.83 2 – 2.83 = (-0.83) (-0.83)^2 = 0.69
2 2.83 2 – 2.83 = (-0.83) (-0.83)^2 = 0.69
3 2.83 3 – 2.83 = (0.17) (0.17)^2 = 0.03
4 2.83 4 – 2.83 = (1.17) (1.17)^2 = 1.37
5 2.83 5 – 2.83 = (2.17) (2.17)^2 = 4.71
3.35 + 0.69 + 0.69 + 0.03 + 1.37 + 4.71 = 10.84
$s^2 = \frac{10.84}{6 - 1} = 2.17$
Sujatha Devi
Dr. Jagannatha GV
Click to add notes
Slide 33 of 53
English (United States)
Notes
Comments
94%

Chettinad Dental College & Research Institute

DEPARTMENT OF PUBLIC HEALTH DENTISTRY

e-DISCUSSION FOR POSTGRADUATES

Date:16-06-2020
Session II: 1.15 pm – 2pm

Faculty: Dr. Jagannatha G.V

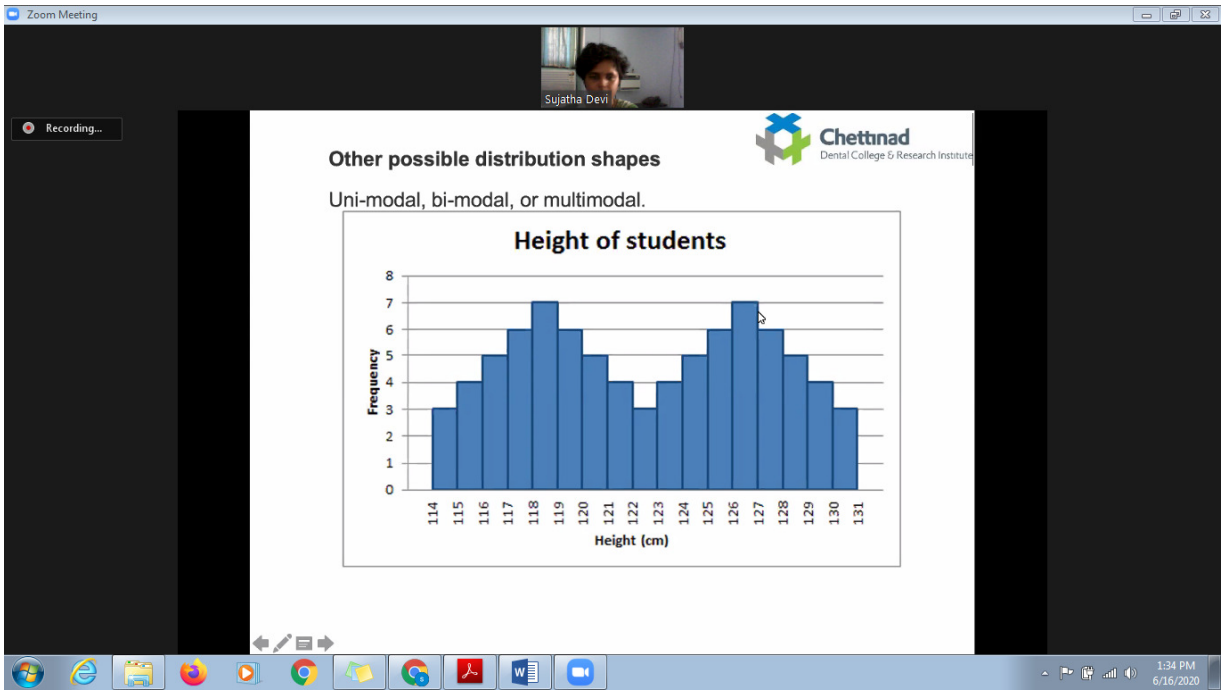
PG Students: Dr.Sujatha Devi

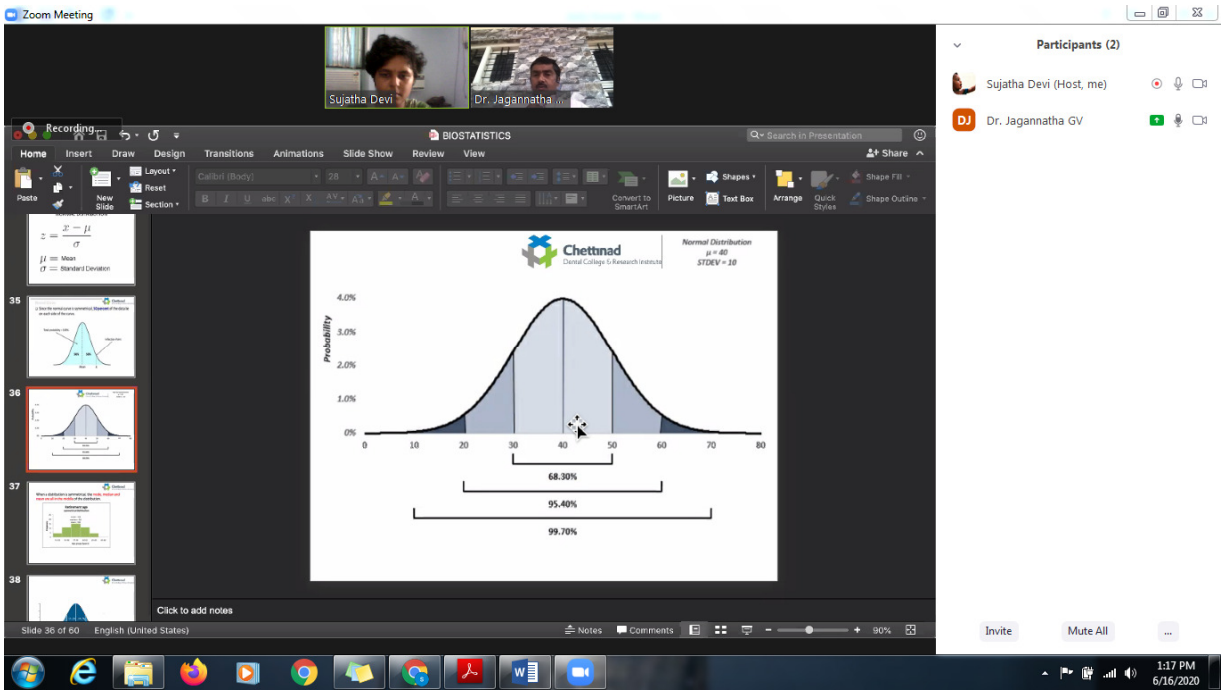
Total No of PG Students: 1/2

Discussion topic: Sampling

Summary :

A brief explanation about the characteristics of normal curve and skewed curve were explained. the concept of three signa or empherical rule , its practical implications were explained with suitable examples. What is a sample, the necessacity of obtaining a sample was expained. The characteristics of a sample and the basic steps in obtaining a sample like selecting a population, selecting sample frame and then selectina a sample was explained with suitable examples. The different types of sampling methods of probablity and non probablity sampling were explained. Simple random sampling was explained in brief with suitable examples.




Zoom Meeting
Sujatha Devi
Dr. Jagannatha
Recording...
BIOSTATISTICS
Chettinad
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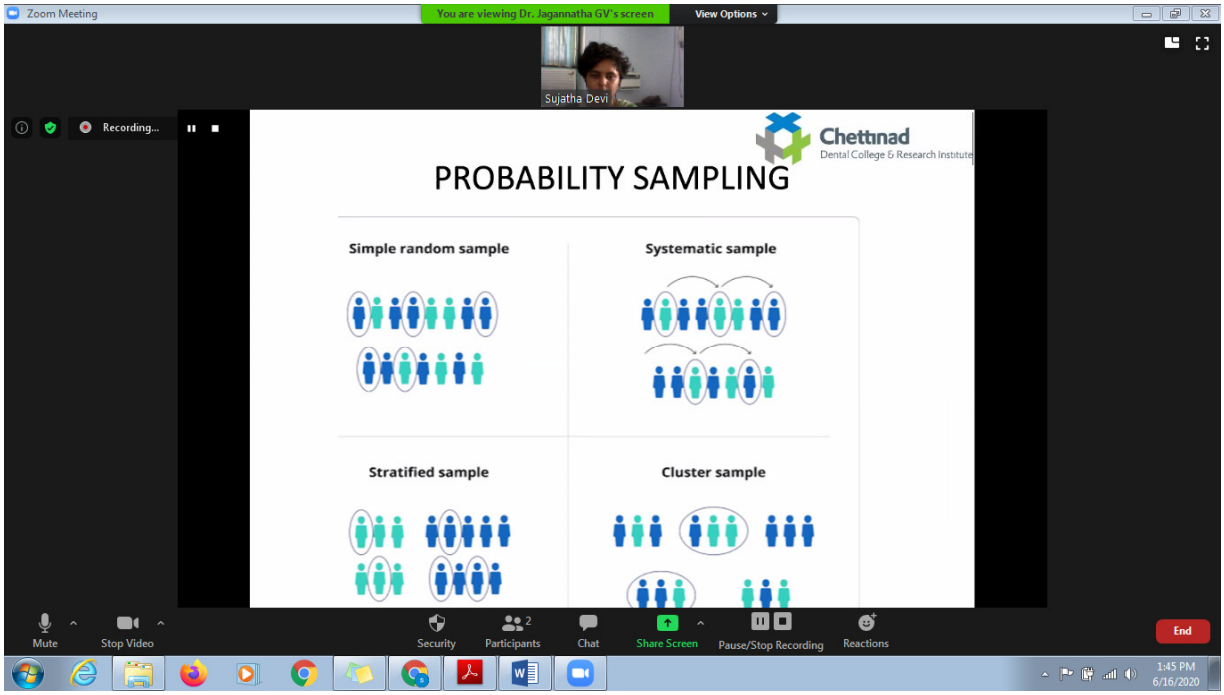
Normal Distribution
μ = 40
STDEV = 10
Probability
4.0%
3.0%
2.0%
1.0%
0%
0
10
20
30
40
50
60
70
80
68.30%
95.40%
99.70%
Click to add notes
Slide 36 of 60
English (United States)
Notes
Comments
90%
Participants (2)
Sujatha Devi (Host, me)
Dr. Jagannatha GV
Invite
Mute All
1:17 PM
6/16/2020


Zoom Meeting
You are viewing Dr. Jagannatha GV's screen
View Options
Sujatha Devi
Recording...
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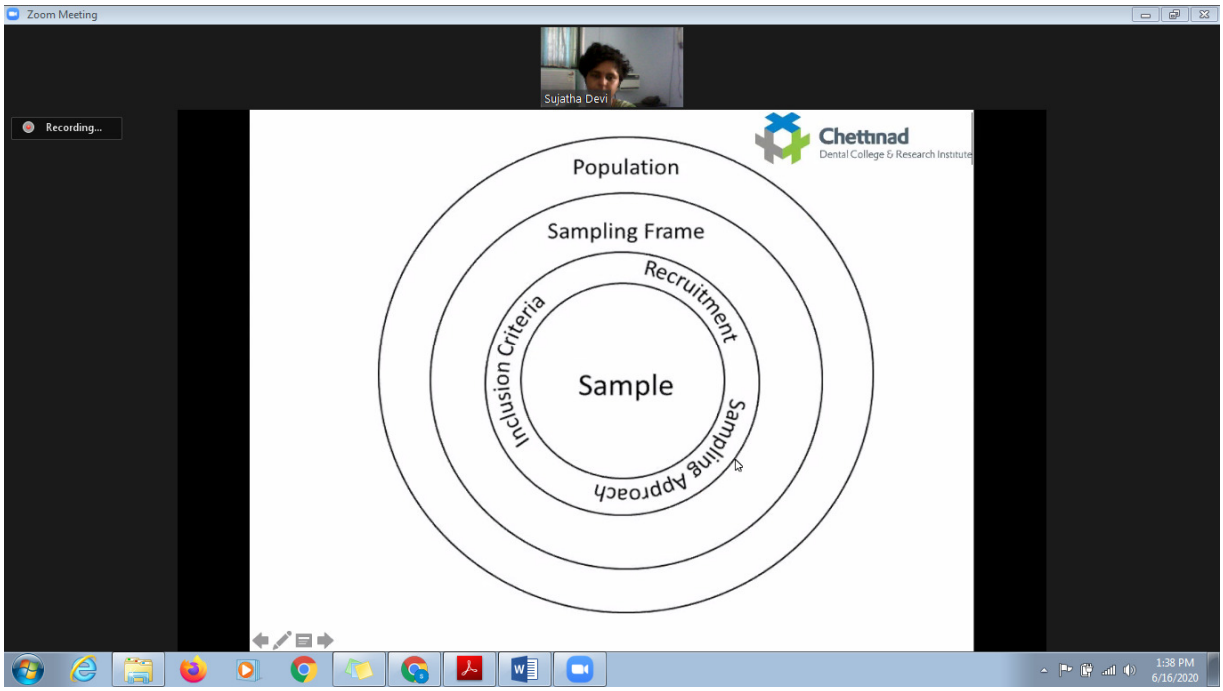
Dental College & Research Institute
PROBABILITY SAMPLING
Simple random sample
Systematic sample
Stratified sample
Cluster sample
Mute
Stop Video
Security
Participants
2
Chat
Share Screen
Pause/Stop Recording
Reactions
End
1:45 PM
6/16/2020


Zoom Meeting
Sujatha Devi
Recording...
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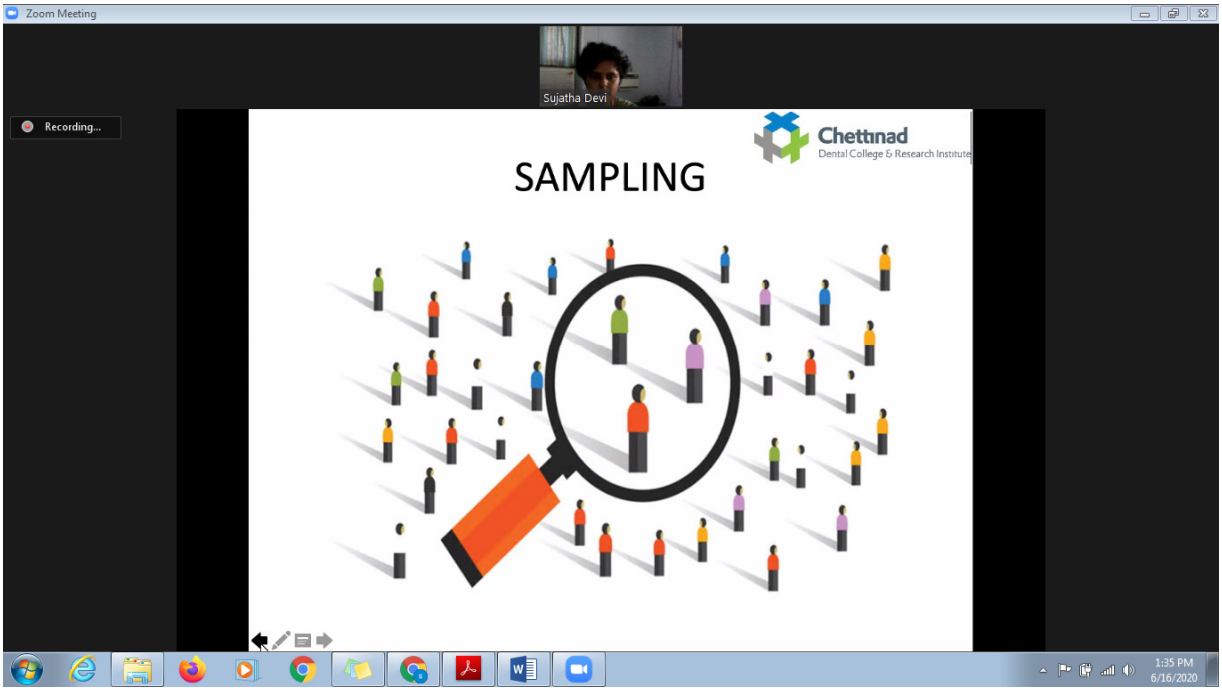
Population
Sampling Frame
Recruitment
Inclusion Criteria
Sample
Sampling Approach
1:38 PM
6/16/2020


Zoom Meeting
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Recording...
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SAMPLING
1:35 PM
6/16/2020

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Dental College & Research Institute

DEPARTMENT OF PUBLIC HEALTH DENTISTRY

e-DISCUSSION FOR POSTGRADUATES

Date:17-06-2020
Session I: 10.45 am – 11.30 am

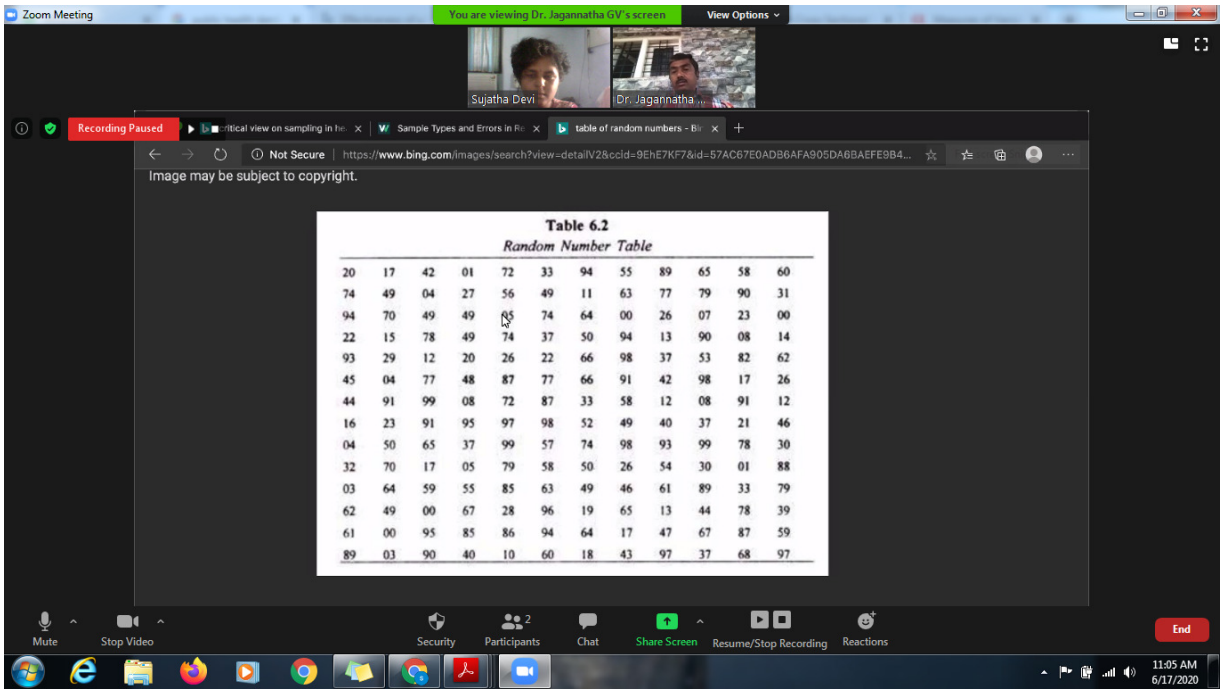
Faculty: Dr. Jagannatha G.V

PG Students: Dr.Sujatha Devi

Total No of PG Students: 1/2

Discussion topic: Sampling
Sub topic : Probability sampling – Systemic, Stratified And Cluster methods
Summary :

A brief recap of sampling was given. The main reasons why a sample is necessary was explained. The implications of over estimation and under estimation was briefed about.The table of random numbers was explained with suitable examples.The systemic sampling, stratified sampling and cluster sampling were explained in brief. The method by which the data is obtained in these methods, the advantages and disadvantages of the obtained data were explained with suitable examples.


Zoom Meeting
You are viewing Dr. Jagannatha GV's screen
View Options
Sujatha Devi
Dr. Jagannatha ...
Recording Paused
Not Secure
https://www.bing.com/images/search?view=detailV2&ccid=9EhE7KF7&id=57AC67E0ADB6AFA905DA6BAEFE9B4...
Image may be subject to copyright.
Table 6.2
Random Number Table
20 17 42 01 72 33 94 55 89 65 58 60
74 49 04 27 56 49 11 63 77 79 90 31
94 70 49 49 65 74 64 00 26 07 23 00
22 15 78 49 74 37 50 94 13 90 08 14
93 29 12 20 26 22 66 98 37 53 82 62
45 04 77 48 87 77 66 91 42 98 17 26
44 91 99 08 72 87 33 58 12 08 91 12
16 23 91 95 97 98 52 49 40 37 21 46
04 50 65 37 99 57 74 98 93 99 78 30
32 70 17 05 79 58 50 26 54 30 01 88
03 64 59 55 85 63 49 46 61 89 33 79
62 49 00 67 28 96 19 65 13 44 78 39
61 00 95 85 86 94 64 17 47 67 87 59
89 03 90 40 10 60 18 43 97 37 68 97
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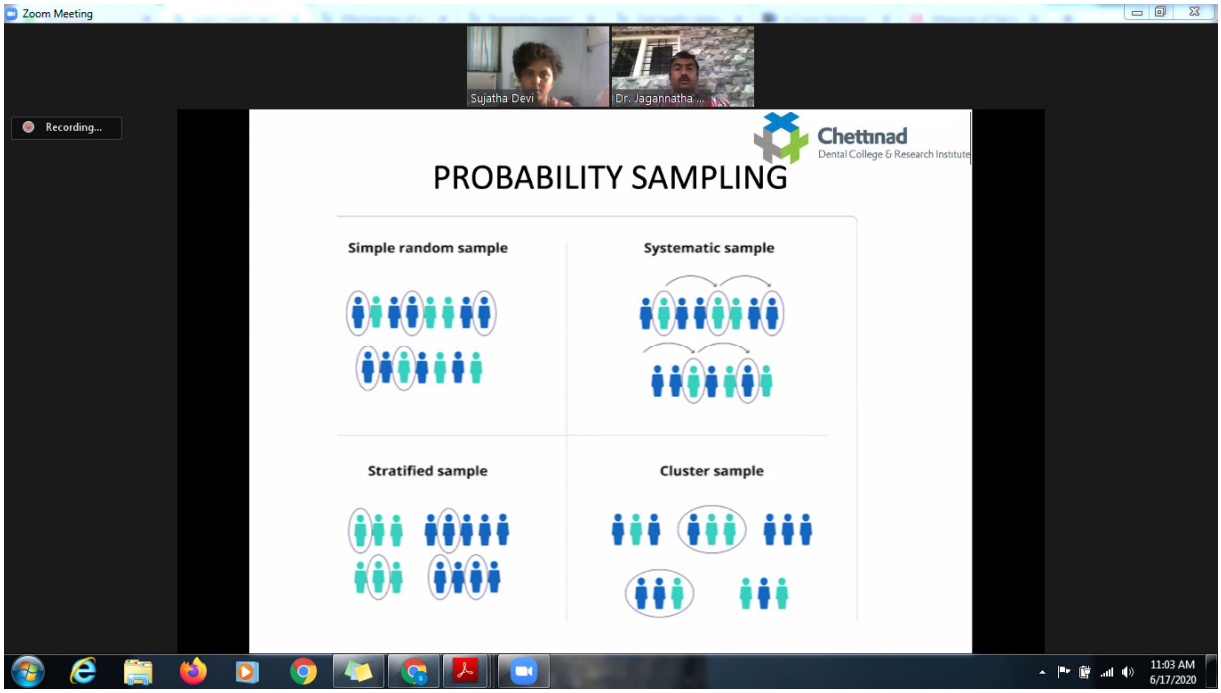
Participants
Chat
Share Screen
Resume/Stop Recording
Reactions
End
11:05 AM
6/17/2020


Zoom Meeting
Sujatha Devi
Dr. Jagannatha ...
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PROBABILITY SAMPLING
Simple random sample
Systematic sample
Stratified sample
Cluster sample
11:03 AM
6/17/2020

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Dental College & Research Institute

DEPARTMENT OF PUBLIC HEALTH DENTISTRY

e-DISCUSSION FOR POSTGRADUATES

Date:17-06-2020
Session II: 1.15pm- 2pm

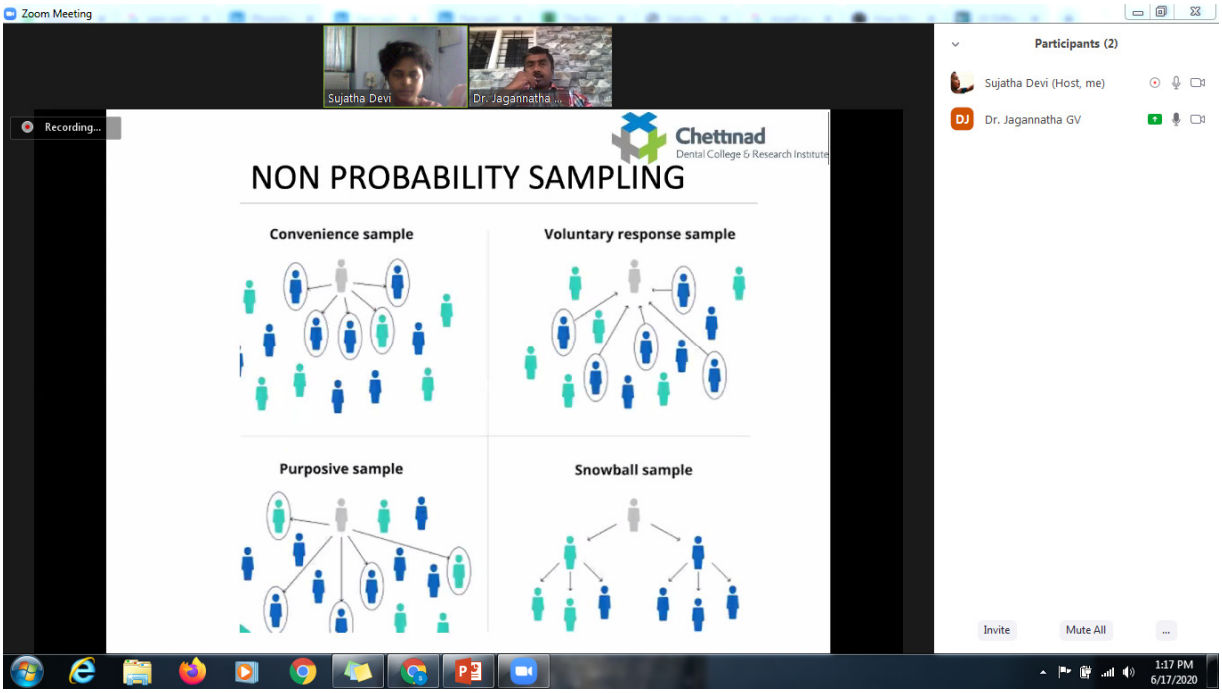
Faculty: Dr. Jagannatha G.V

PG Students: Dr.Sujatha Devi

Total No of PG Students: 1/2

Discussion topic: Sampling
Sub topic :Non Probability sampling – Convenience,Purposive , Quota, Judgement, Snow ball sampling
Summary :

The various methods of non probablity samplling like convenience sampling, purposive, quota, judgement , multi phase , multi stage and snow ball sampling was briefed about. The different names of non probablity sampling like accidental, oppourtunity and grab sampling was explained. The different types of purposive sampling like expert, extreme case, homogenous, maximum variation,total population, typical cases were explained with suitable examples. The methods of collecting data., advantages and disadvantages were explained in brief . The Articles using various methods of sampling were discussed.


Zoom Meeting
Sujatha Devi
Dr. Jagannatha ...
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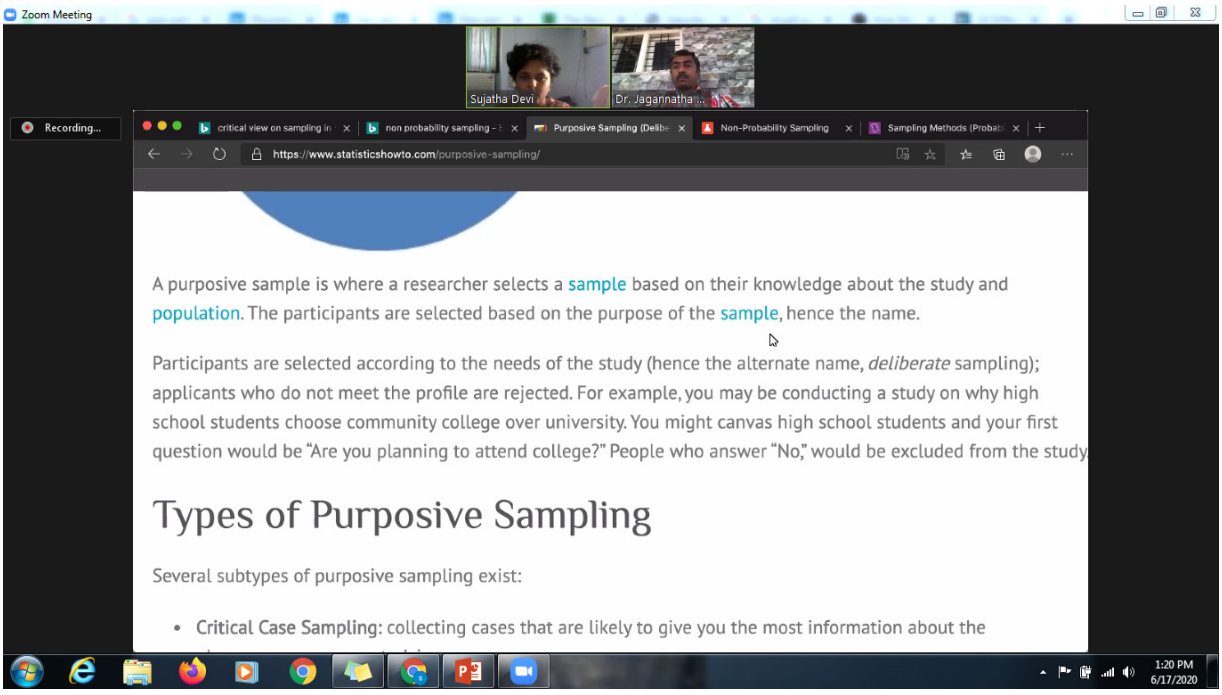
NON PROBABILITY SAMPLING
Convenience sample
Voluntary response sample
Purposive sample
Snowball sample
Participants (2)
Sujatha Devi (Host, me)
Dr. Jagannatha GV
Invite
Mute All
1:17 PM
6/17/2020


Zoom Meeting
Sujatha Devi
Dr. Jagannatha ...
Recording...
https://www.statisticshowto.com/purposive-sampling/
A purposive sample is where a researcher selects a sample based on their knowledge about the study and population. The participants are selected based on the purpose of the sample, hence the name.
Participants are selected according to the needs of the study (hence the alternate name, deliberate sampling); applicants who do not meet the profile are rejected. For example, you may be conducting a study on why high school students choose community college over university. You might canvas high school students and your first question would be "Are you planning to attend college?" People who answer "No," would be excluded from the study.
Types of Purposive Sampling
Several subtypes of purposive sampling exist:
Critical Case Sampling: collecting cases that are likely to give you the most information about the
1:20 PM
6/17/2020

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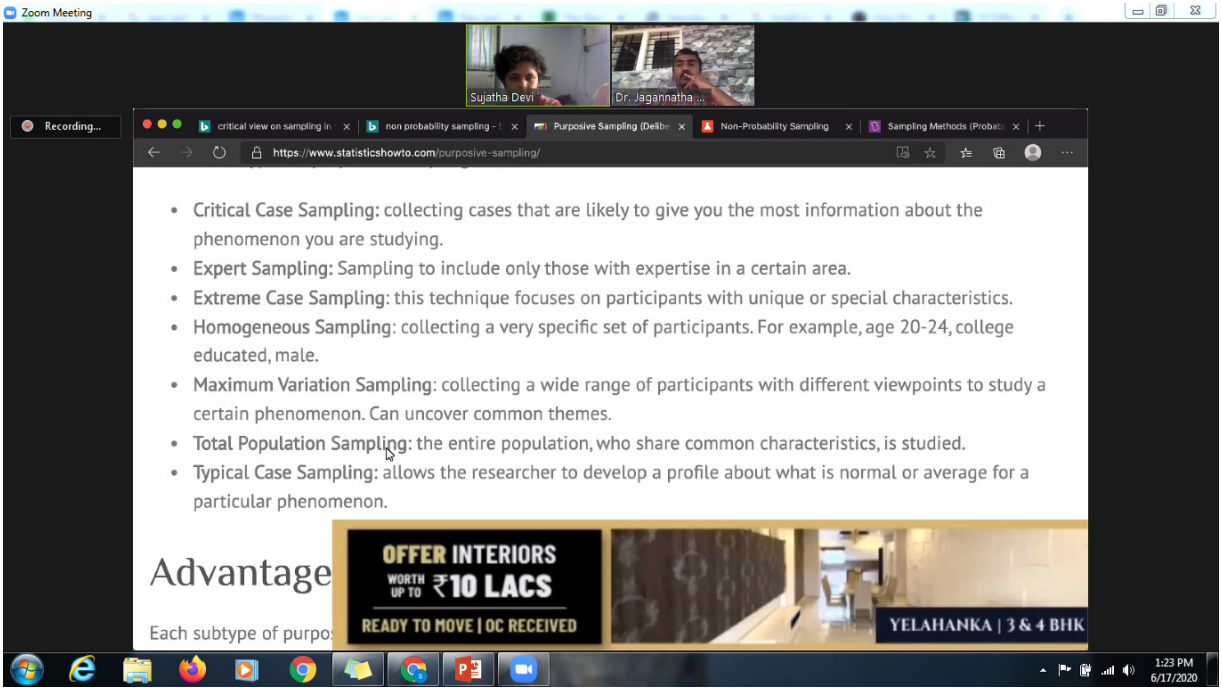
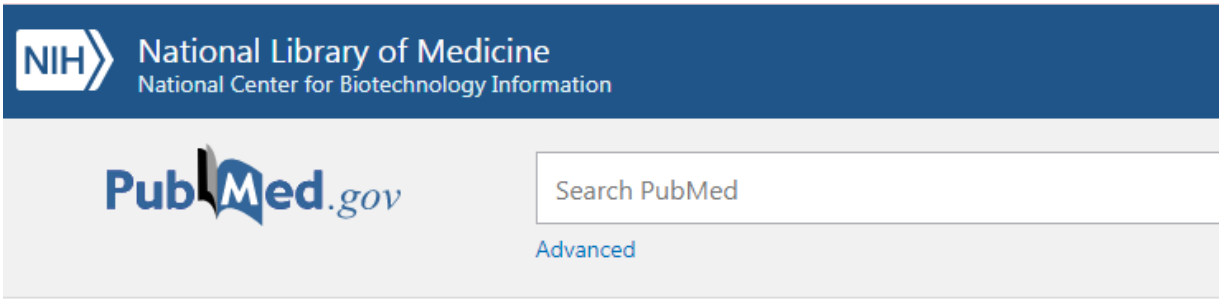




Indian J Dent Res. Nov-Dec 2018;29(6):726-731. doi: 10.4103/ijdr.IJDR_221_17.

A Cross-Sectional Study on Eruption Timing of Primary Teeth in Children of Mysore, Karnataka

Mysore Devraj Indira [1], Nandlal Bhojraj [1], D Narayanappa [2]

Affiliations + expand

PMID: 30588000 DOI: 10.4103/ijdr.IJDR_221_17

Journal of Indian Society of Periodontology
Wolters Kluwer -- Medknow Publications

Oral health-related knowledge, attitude and practices among eunuchs (hijras) residing in Bhopal City, Madhya Pradesh, India: A cross-sectional questionnaire survey

Sudhir Hongal, Nilesh Arjun Torwane, [...], and Shubham Jain

Additional article information

Asian Pacific Journal of Cancer Prevention
APOCP
West Asia Organization for Cancer Prevention

Effectiveness of a School-Based 'Tobacco Free' Intervention on Adolescents' Knowledge and Exposure to Second Hand Tobacco Smoke - A Multiphase Study

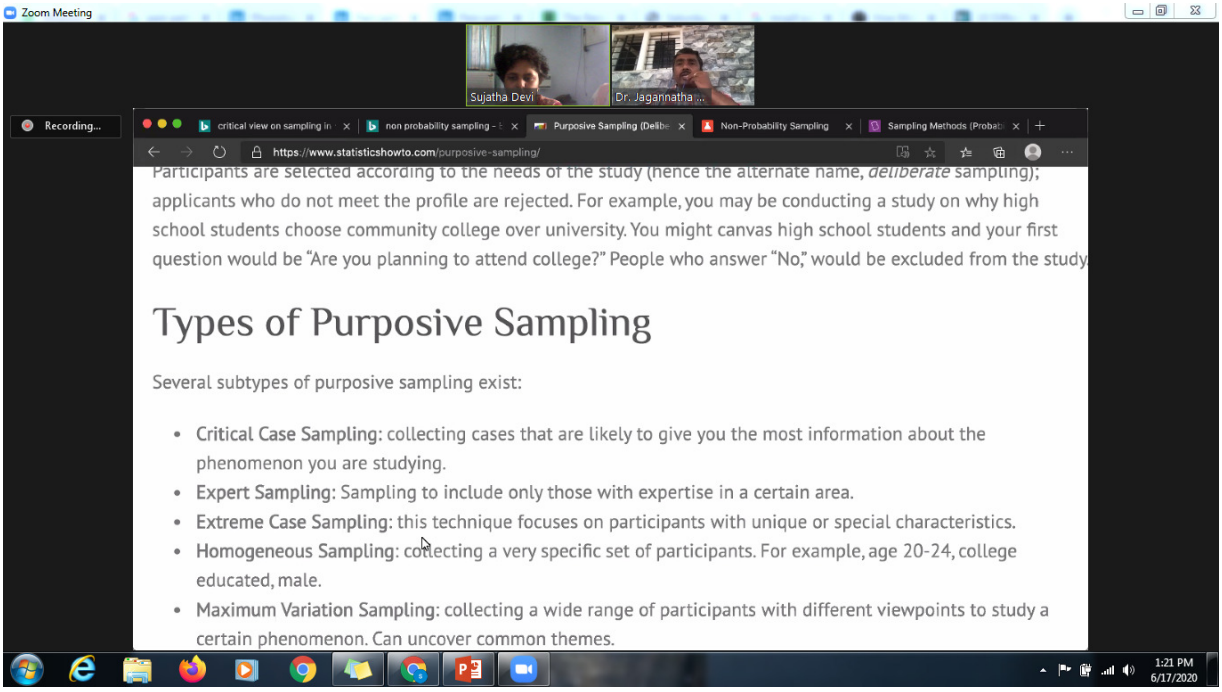
Ashwini Rao, Unnikrishnan B, [...], and Nikita Rungta

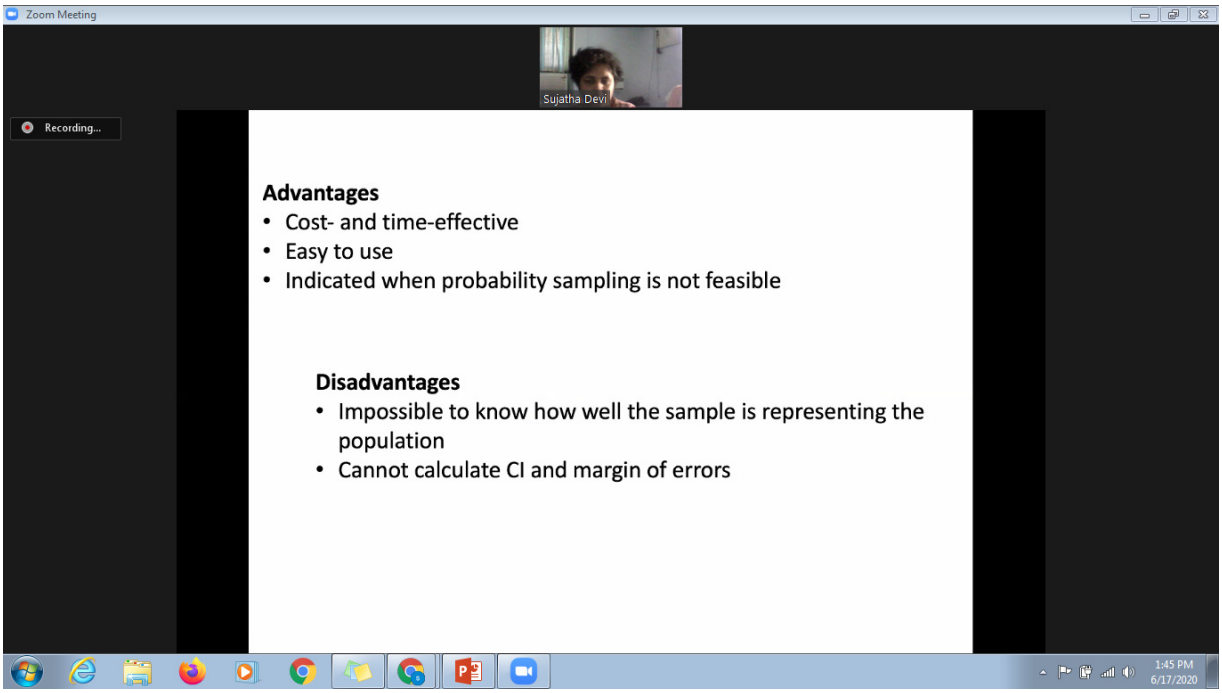
Additional article information

BMC Oral Health
BMC

Promoting parenting strategies to improve tooth brushing in children: design of a non-randomised cluster-controlled trial

Maddelon de Jong-Lenters, Monique L'Hoir, [...], and Denise Duijster


Zoom Meeting
Sujatha Devi
Dr. Jagannatha ...
Recording...
https://www.statisticshowto.com/purposive-sampling/
Participants are selected according to the needs of the study (hence the alternate name, deliberate sampling); applicants who do not meet the profile are rejected. For example, you may be conducting a study on why high school students choose community college over university. You might canvas high school students and your first question would be "Are you planning to attend college?" People who answer "No," would be excluded from the study.
Types of Purposive Sampling
Several subtypes of purposive sampling exist:
Critical Case Sampling: collecting cases that are likely to give you the most information about the phenomenon you are studying.
Expert Sampling: Sampling to include only those with expertise in a certain area.
Extreme Case Sampling: this technique focuses on participants with unique or special characteristics.
Homogeneous Sampling: collecting a very specific set of participants. For example, age 20-24, college educated, male.
Maximum Variation Sampling: collecting a wide range of participants with different viewpoints to study a certain phenomenon. Can uncover common themes.
1:21 PM
6/17/2020


Zoom Meeting
Sujatha Devi
Recording...
Advantages
Cost- and time-effective
Easy to use
Indicated when probability sampling is not feasible
Disadvantages
Impossible to know how well the sample is representing the population
Cannot calculate CI and margin of errors
1:45 PM
6/17/2020

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Dental College & Research Institute

DEPARTMENT OF PUBLIC HEALTH DENTISTRY

e-DISCUSSION FOR POSTGRADUATES

Date:18-06-2020
Session I: 11 am – 11.45 am

Faculty: Dr. Jagannatha G.V

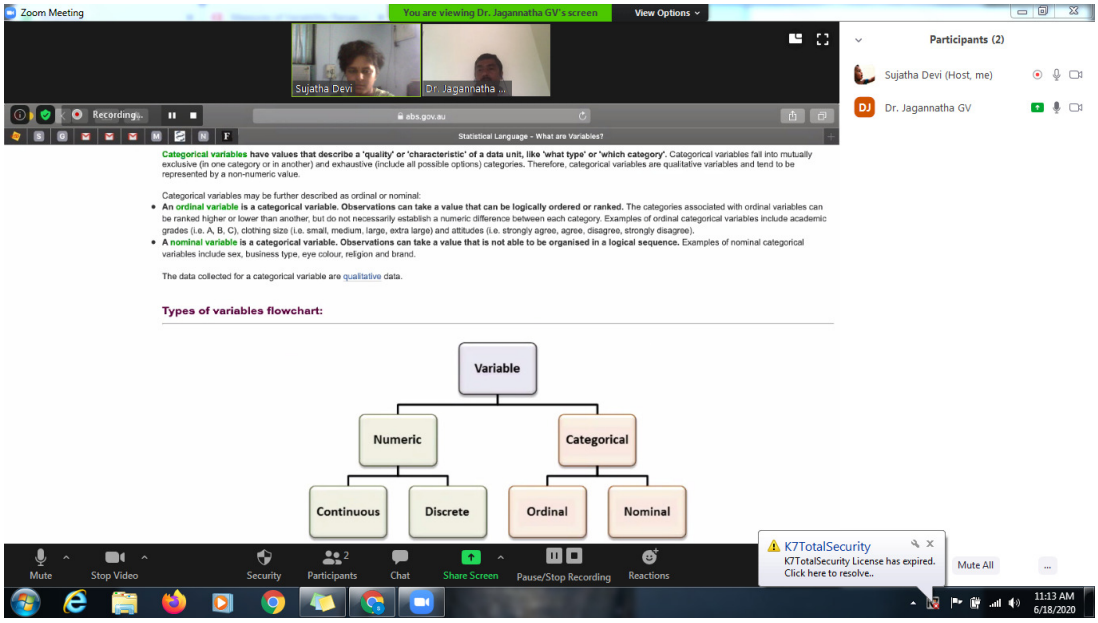
PG Students: Dr.Sujatha Devi

Total No of PG Students: 1/1

Discussion topic: Revision of Biostatistics

Summary :

A brief revision about what id data, the dufferent types of data like qualitative data, quantitative data was done. The difference between discrete and continuous data was revised with suitable examples. the different scales of data like the nominal scale, ordinal scale, interval and ratio were also revised with examples. The various types of representation of data like tabulation, graph, bar graph, multiple bar graph, stacked bar graph, histogram, frequency curve , line graph , scatter diagram, pictogram, map and pie diagram was revised. The representation of data , its advantages, implications and disadvantages were revised.



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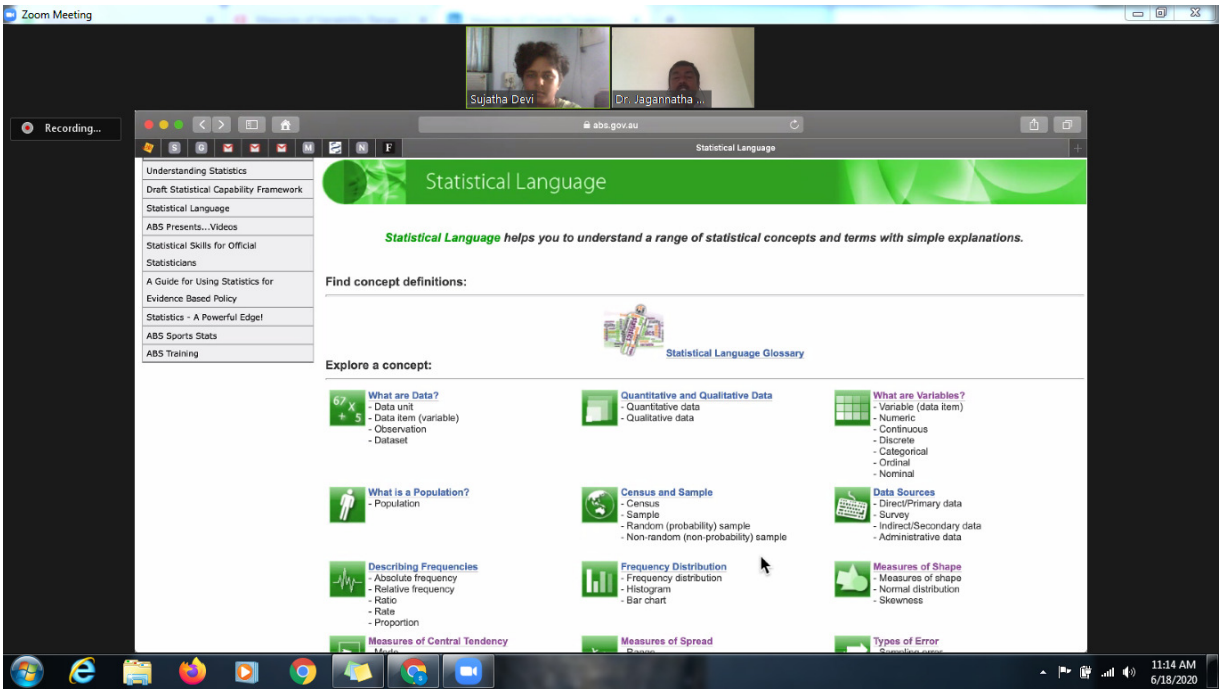

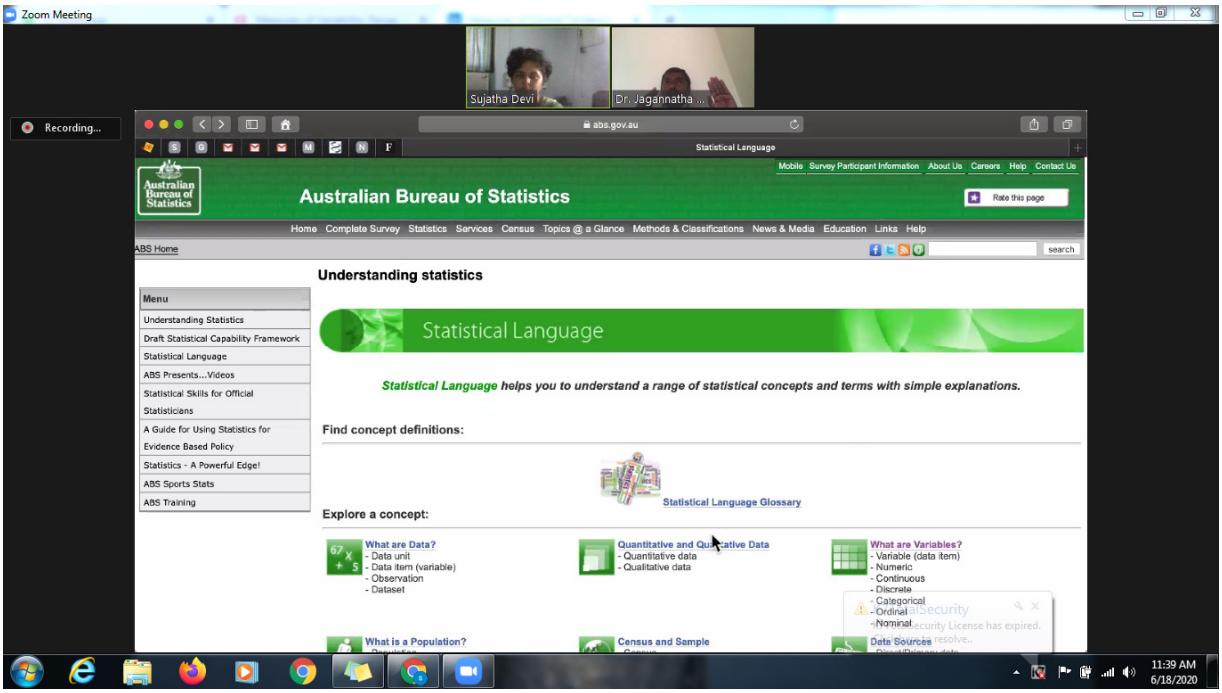

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DEPARTMENT OF PUBLIC HEALTH DENTISTRY

e-DISCUSSION FOR POSTGRADUATES

Date:18-06-2020
SessionII: 5pm – 5.45 pm

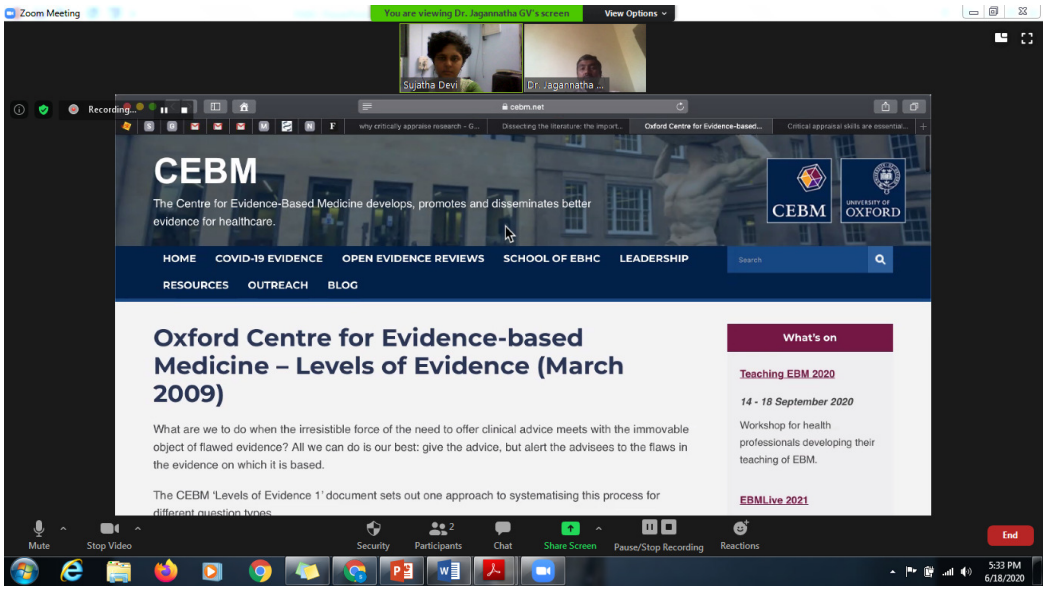
Faculty: Dr. Jagannatha G.V

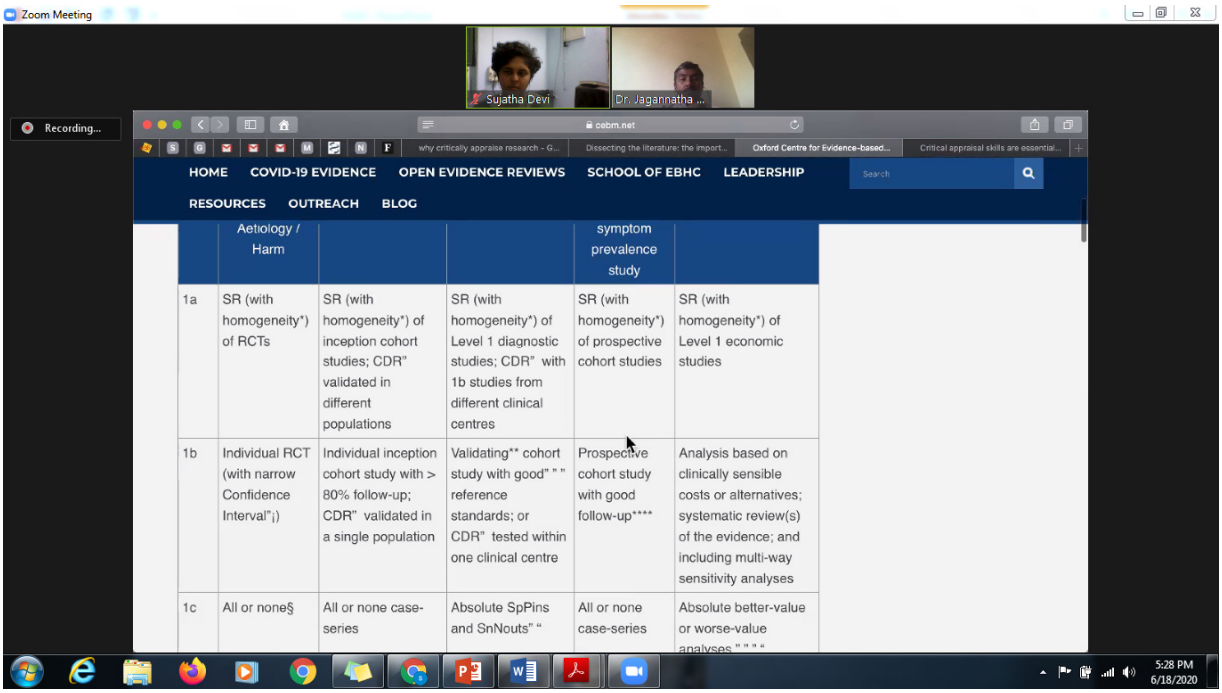
PG Students: Dr.Sujatha Devi

Total No of PG Students: 1/1

Discussion topic: Critical appraisal of scientific research
Summary :

A brief discussion about the necessity to do a critical appraisal was explained. the uses of it like the addressing of the error in the study, reducing the information overload by eliminating the irrelevant and weak studies, identifying relevant information, distinguishing evidence from opinion, belief, assumption and mis reporting, assessment of validity, assessment of usefulness in clinical practice , recognition of potential bias were explained in brief. The difference between statistical significance and clinical significance was explained with suitable articles and references.




Zoom Meeting
Recording...
Sujatha Devi
Dr. Jagannatha ...
cebm.net
HOME
COVID-19 EVIDENCE
OPEN EVIDENCE REVIEWS
SCHOOL OF EBHC
LEADERSHIP
RESOURCES
OUTREACH
BLOG
Search
Aetiology / Harm
symptom prevalence study
1a
SR (with homogeneity*) of RCTs
SR (with homogeneity*) of inception cohort studies; CDR" validated in different populations
SR (with homogeneity*) of Level 1 diagnostic studies; CDR" with 1b studies from different clinical centres
SR (with homogeneity*) of prospective cohort studies
SR (with homogeneity*) of Level 1 economic studies
1b
Individual RCT (with narrow Confidence Interval"¡)
Individual inception cohort study with > 80% follow-up; CDR" validated in a single population
Validating** cohort study with good" " " reference standards; or CDR" tested within one clinical centre
Prospective cohort study with good follow-up****
Analysis based on clinically sensible costs or alternatives; systematic review(s) of the evidence; and including multi-way sensitivity analyses
1c
All or none§
All or none case-series
Absolute SpPins and SnNouts" "
All or none case-series
Absolute better-value or worse-value
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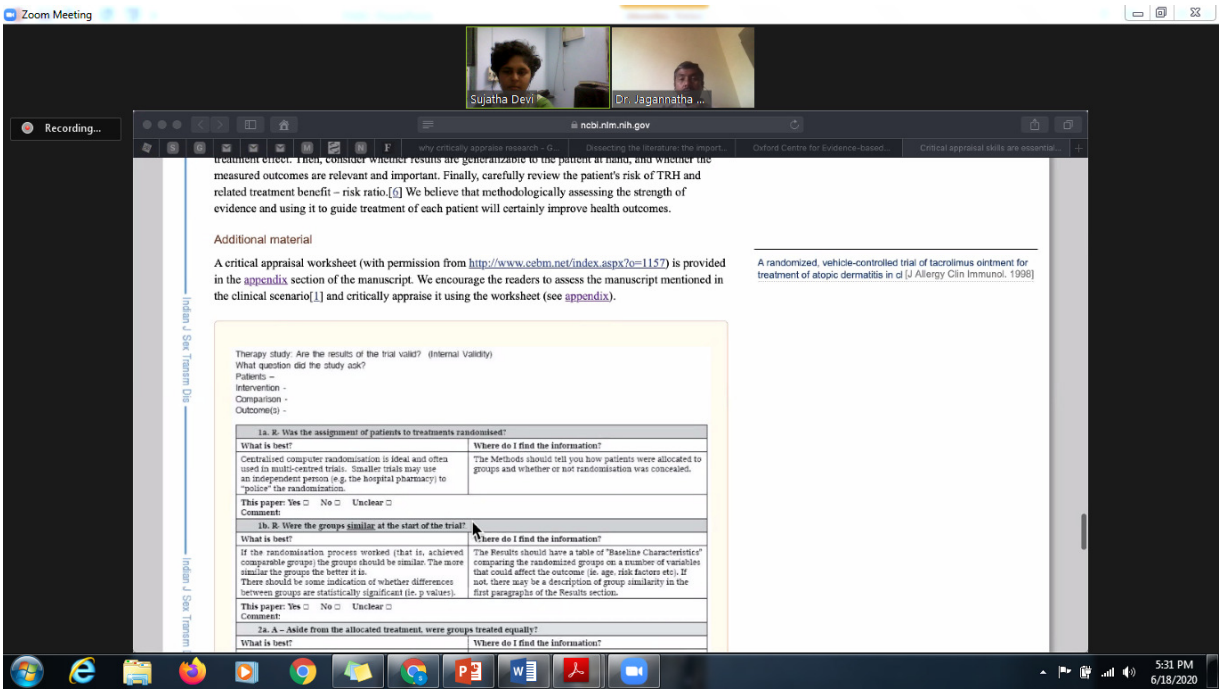
6/18/2020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Recording...
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Dr. Jagannatha ...
ncbi.nlm.nih.gov
measured outcomes are relevant and important. Finally, carefully review the patient's risk of TRH and related treatment benefit – risk ratio.[6] We believe that methodologically assessing the strength of evidence and using it to guide treatment of each patient will certainly improve health outcomes.
Additional material
A critical appraisal worksheet (with permission from http://www.cebm.net/index.aspx?o=1157) is provided in the appendix section of the manuscript. We encourage the readers to assess the manuscript mentioned in the clinical scenario[1] and critically appraise it using the worksheet (see appendix).
A randomized, vehicle-controlled trial of tacrolimus ointment for treatment of atopic dermatitis in cl [J Allergy Clin Immunol. 1998]
Therapy study: Are the results of the trial valid? (Internal Validity)
What question did the study ask?
Patients –
Intervention -
Comparison -
Outcome(s) -
1a. R: Was the assignment of patients to treatments randomised?
What is best?
Where do I find the information?
Centralised computer randomisation is ideal and often used in multi-centred trials. Smaller trials may use an independent person (e.g. the hospital pharmacy) to "police" the randomization.
The Methods should tell you how patients were allocated to groups and whether or not randomisation was concealed.
This paper: Yes ☐ No ☐ Unclear ☐
Comment:
1b. R: Were the groups similar at the start of the trial?
What is best?
Where do I find the information?
If the randomisation process worked (that is, achieved comparable groups) the groups should be similar. The more similar the groups the better it is.
There should be some indication of whether differences between groups are statistically significant (ie. p values).
The Results should have a table of "Baseline Characteristics" comparing the randomized groups on a number of variables that could affect the outcome (ie. age, risk factors etc). If not, there may be a description of group similarity in the first paragraphs of the Results section.
This paper: Yes ☐ No ☐ Unclear ☐
Comment:
2a. A – Aside from the allocated treatment, were groups treated equally?
What is best?
Where do I find the information?
Indian J Sex Transm Dis
Indian J Sex Transm
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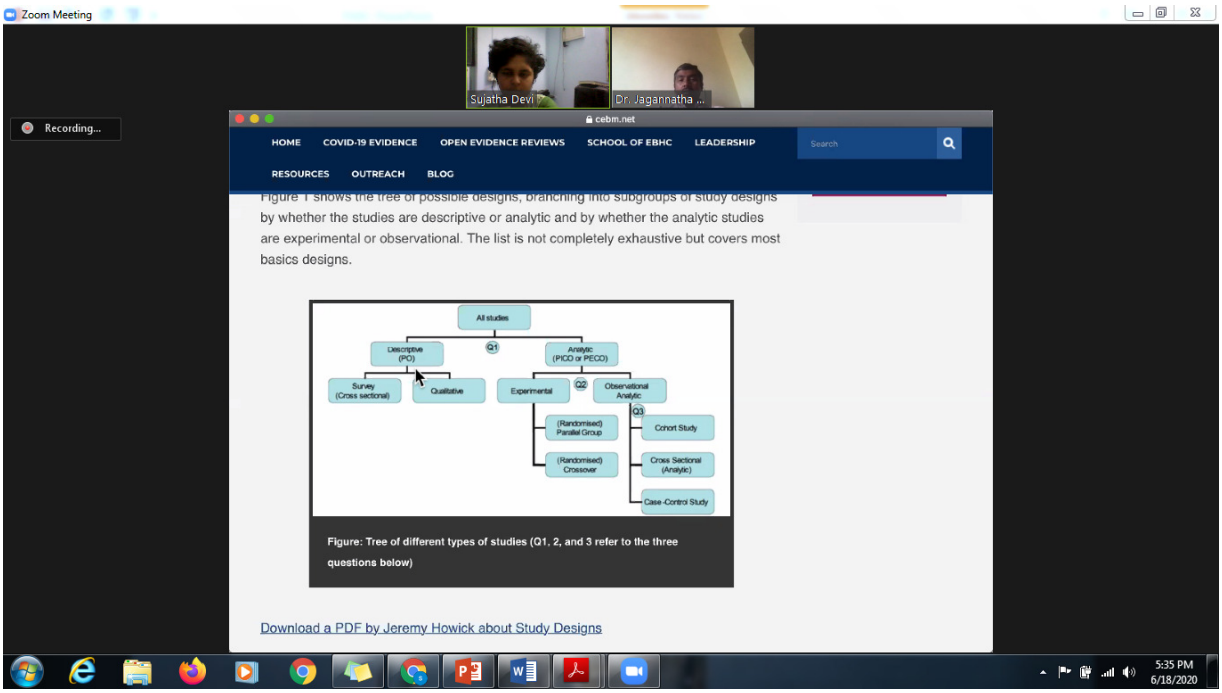

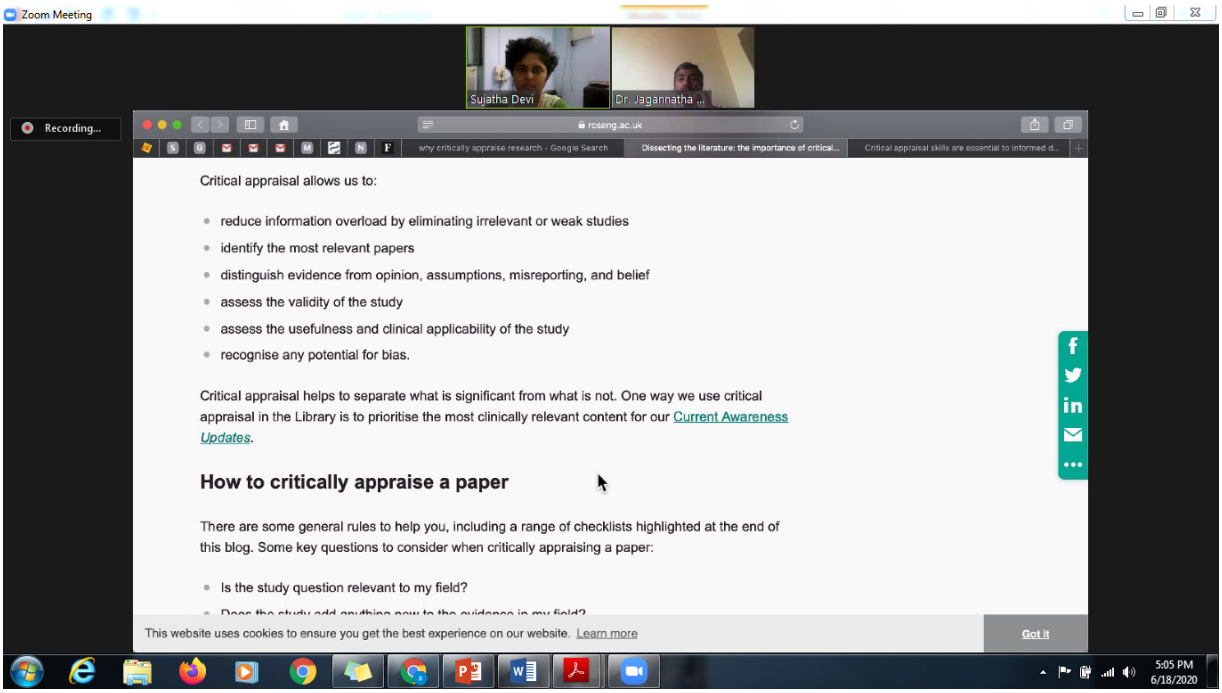

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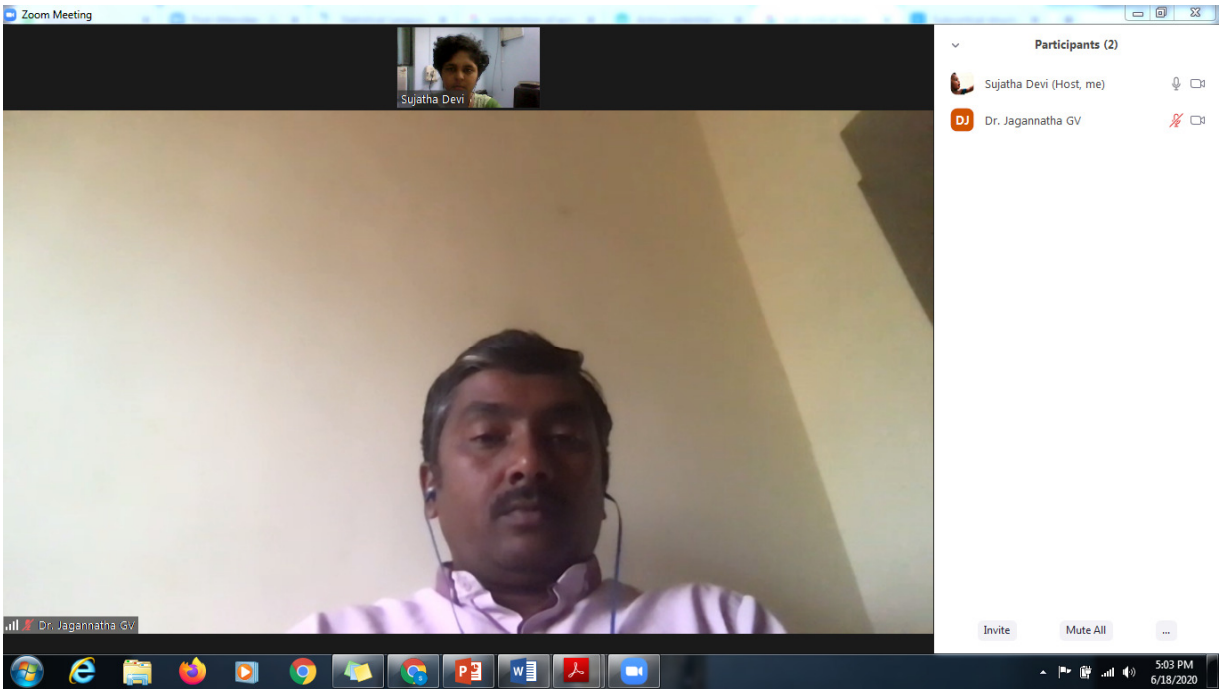

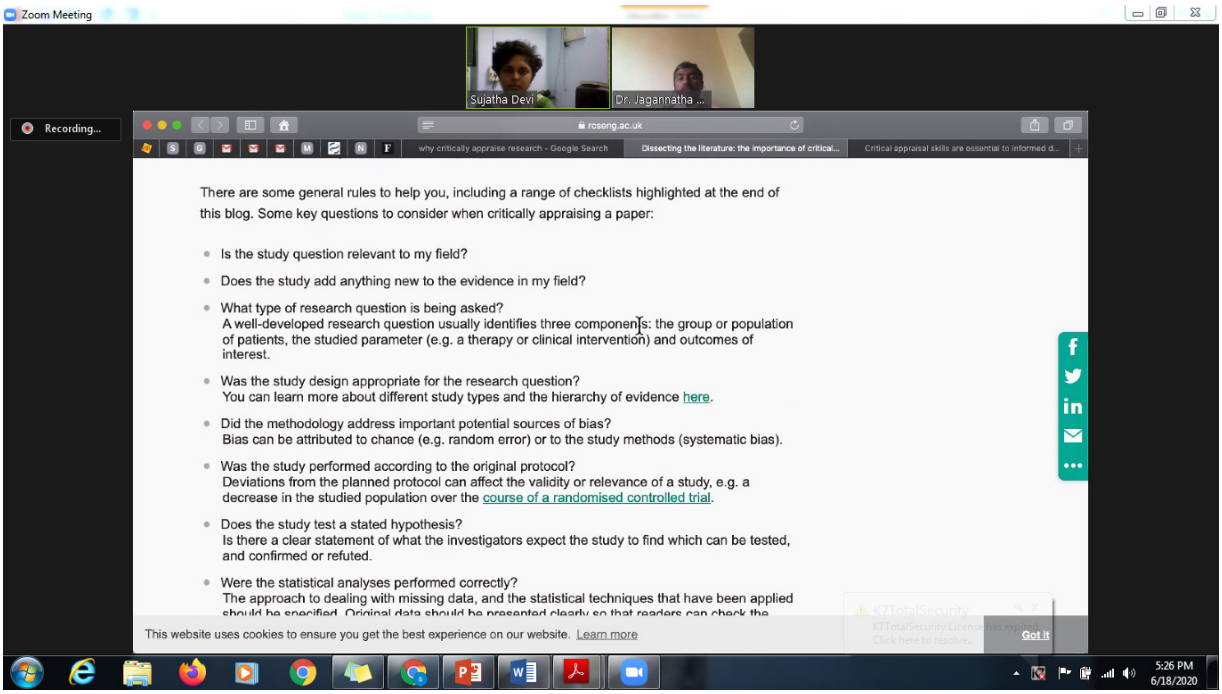

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DEPARTMENT OF PUBLIC HEALTH DENTISTRY

e-DISCUSSION FOR POSTGRADUATES

Date:19-06-2020
Session I: 10.45 am – 11.30 am

Faculty: Dr. Jagannatha G.V

PG Students: Dr.Sujatha Devi

Total No of PG Students: 1/1

Seminar topic: Pain

Summary :
The classification of sensations, definition of pain , receptors of sensory stimuli were explained in brief. The the classification of nerve fibres, the structure and neurons of spinal cord and its tracts were briefed about. The pathway of pain transmission from the stimuli to the brain , the mechanism of first order, second order and third order neurons were explained in brief. The definition of action potential, its generation, resting membrane potential were explained. the steps in progression of the signal like transduction, conduction, transmission, modulation and perception , neurotransmitters, neuro modulators was also explained. the concept of gate control theory , classification of pain and different scales to measure pain were also briefed about. the ways to improve the seminar by adding theories of pain transmission, giving examples for the pain classifications, briefing about the mnagement of dental pain and the prctical limitations experienced by the dentists in treating pain were suggested.

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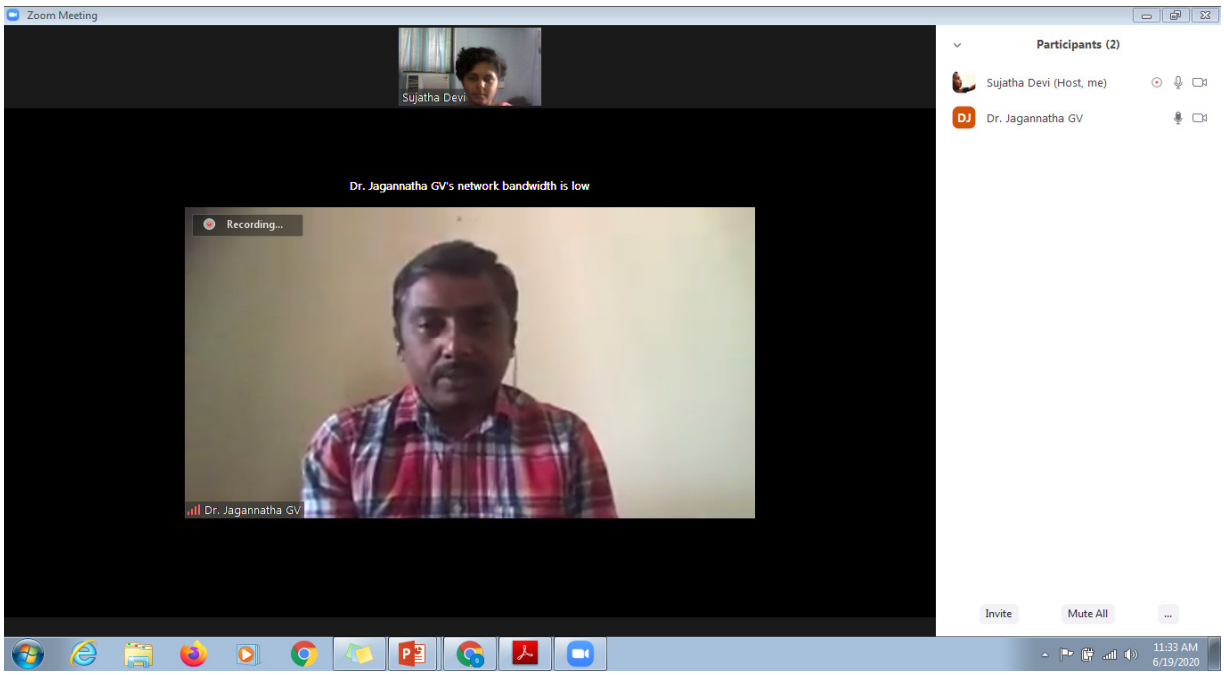

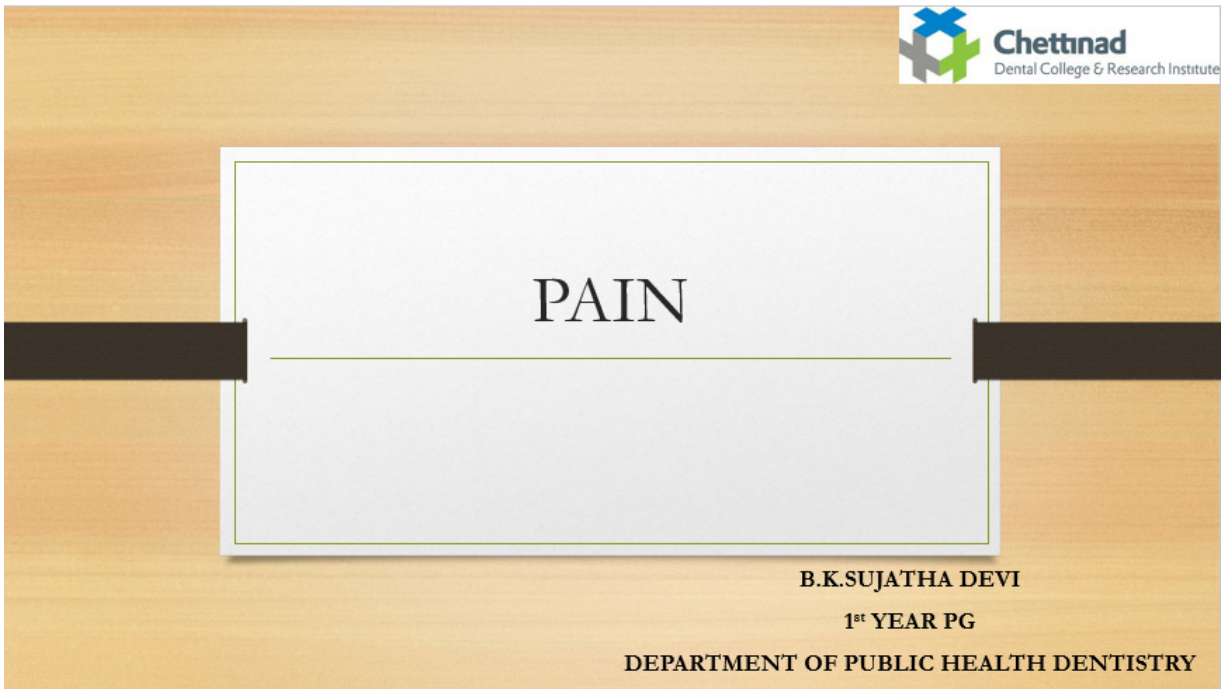

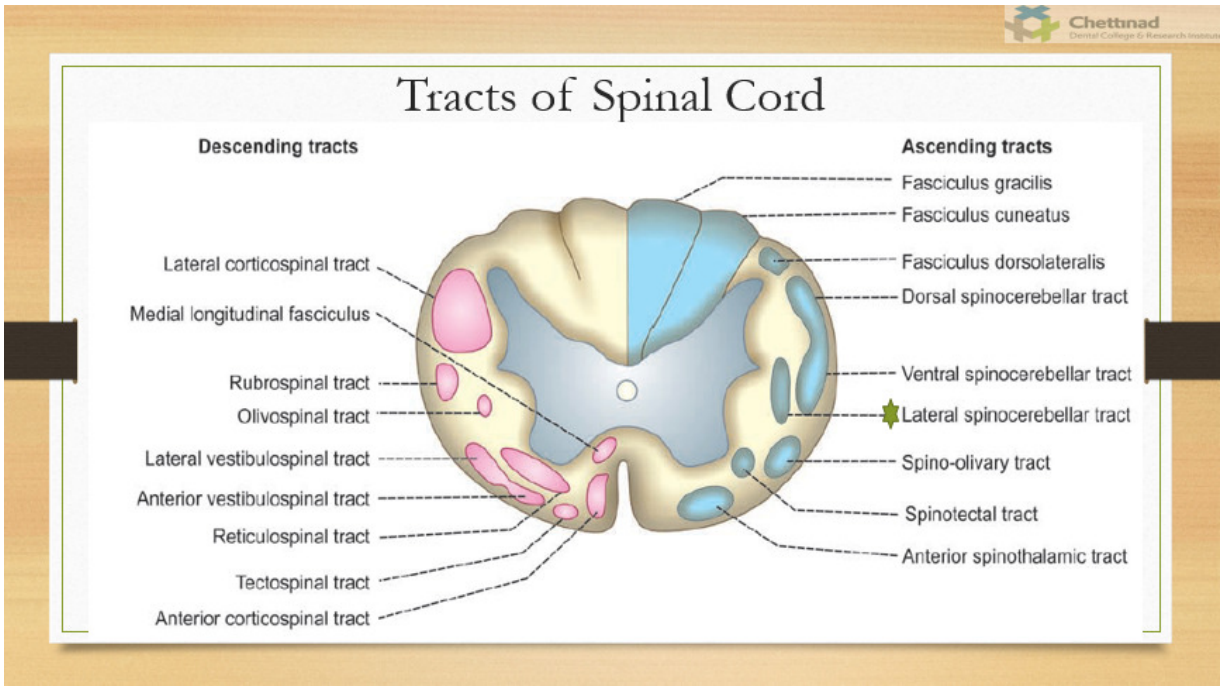
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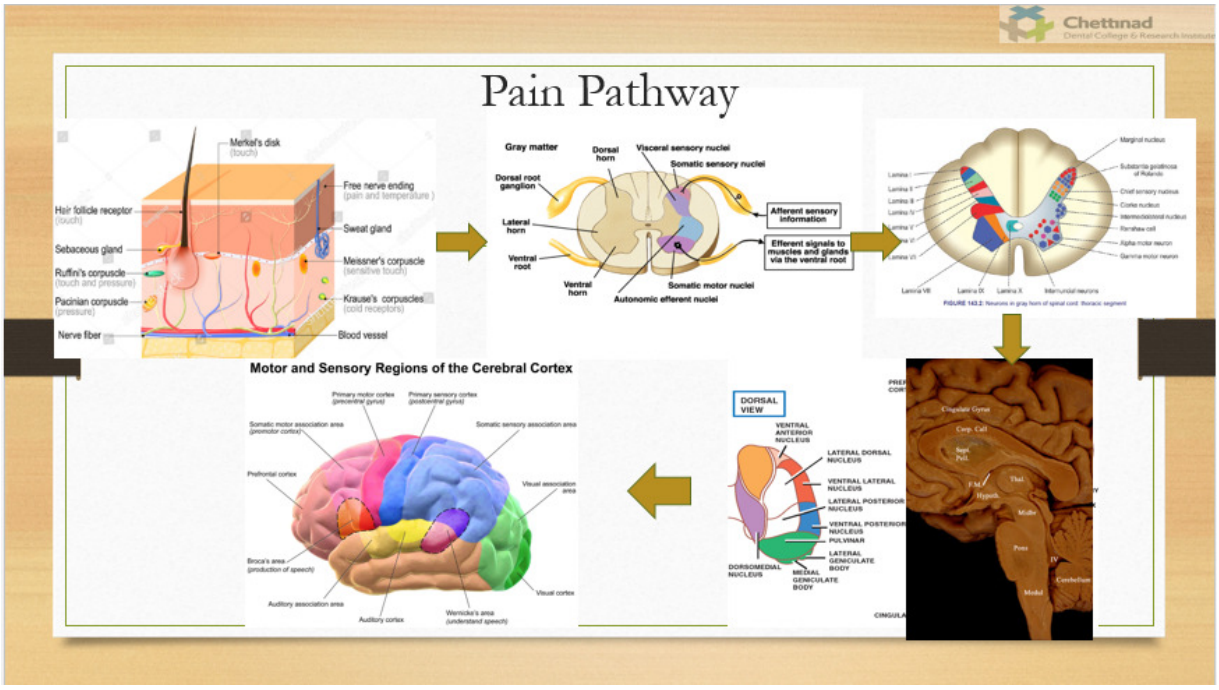
Tracts of Spinal Cord
Descending tracts
Ascending tracts
Lateral corticospinal tract
Medial longitudinal fasciculus
Rubrospinal tract
Olivospinal tract
Lateral vestibulospinal tract
Anterior vestibulospinal tract
Reticulospinal tract
Tectospinal tract
Anterior corticospinal tract
Fasciculus gracilis
Fasciculus cuneatus
Fasciculus dorsolateralis
Dorsal spinocerebellar tract
Ventral spinocerebellar tract
Lateral spinocerebellar tract
Spino-olivary tract
Spinotectal tract
Anterior spinothalamic tract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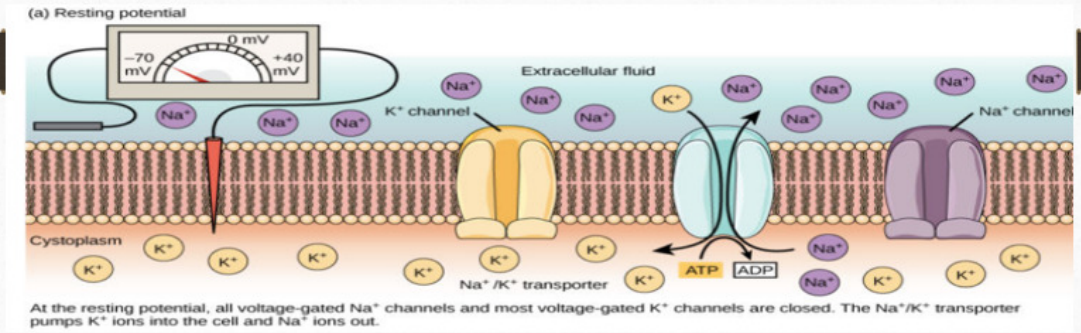
Pain Pathway
Merkel's disk
(touch)
Hair follicle receptor
(touch)
Sebaceous gland
Ruffini's corpuscle
(touch and pressure)
Pacinian corpuscle
(pressure)
Nerve fiber
Free nerve ending
(pain and temperature)
Sweat gland
Meissner's corpuscle
(sensitive touch)
Krause's corpuscles
(cold receptors)
Blood vessel
Gray matter
Dorsal horn
Visceral sensory nuclei
Somatic sensory nuclei
Dorsal root ganglion
Lateral horn
Ventral root
Ventral horn
Afferent sensory information
Efferent signals to muscles and glands via the ventral root
Somatic motor nuclei
Autonomic efferent nuclei
Motor and Sensory Regions of the Cerebral Cortex
DORSAL VIEW
VENTRAL ANTERIOR NUCLEUS
LATERAL DORSAL NUCLEUS
VENTRAL LATERAL NUCLEUS
LATERAL POSTERIOR NUCLEUS
VENTRAL POSTERIOR NUCLEUS
PULVINAR
LATERAL GENICULATE BODY
DORSOMEDIAL NUCLEUS
MEDIAL GENICULATE BODY

Resting membrane potential

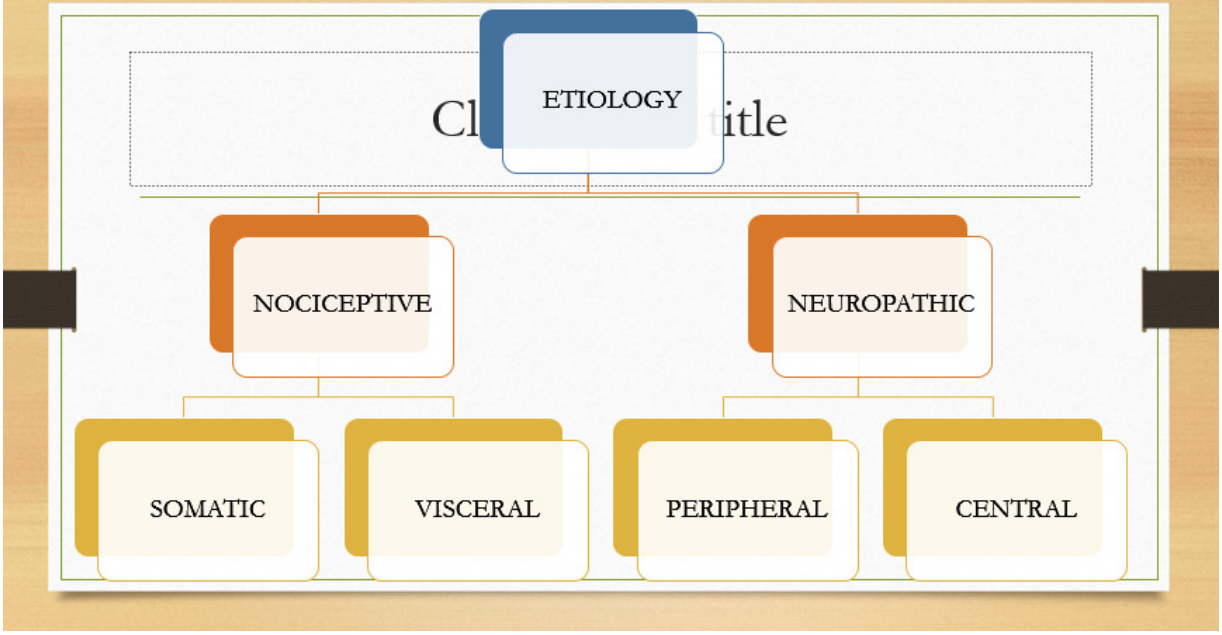
Table 1. Ion Concentration Inside and Outside Neurons

Ion	Extracellular concentration (mM)	Intracellular concentration (mM)	Ratio outside/inside
Na^+	145	12	12
K^+	4	155	0.026
Cl^-	120	4	30
Organic anions (A^-)	—	100	

- Resting membrane potential for neurons -50 to -75mV



At the resting potential, all voltage-gated Na^+ channels and most voltage-gated K^+ channels are closed. The Na^+/K^+ transporter pumps K^+ ions into the cell and Na^+ ions out.



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DEPARTMENT OF PUBLIC HEALTH DENTISTRY

e-DISCUSSION FOR POSTGRADUATES

Date:20-06-2020
Session I: 6pm – 7pm

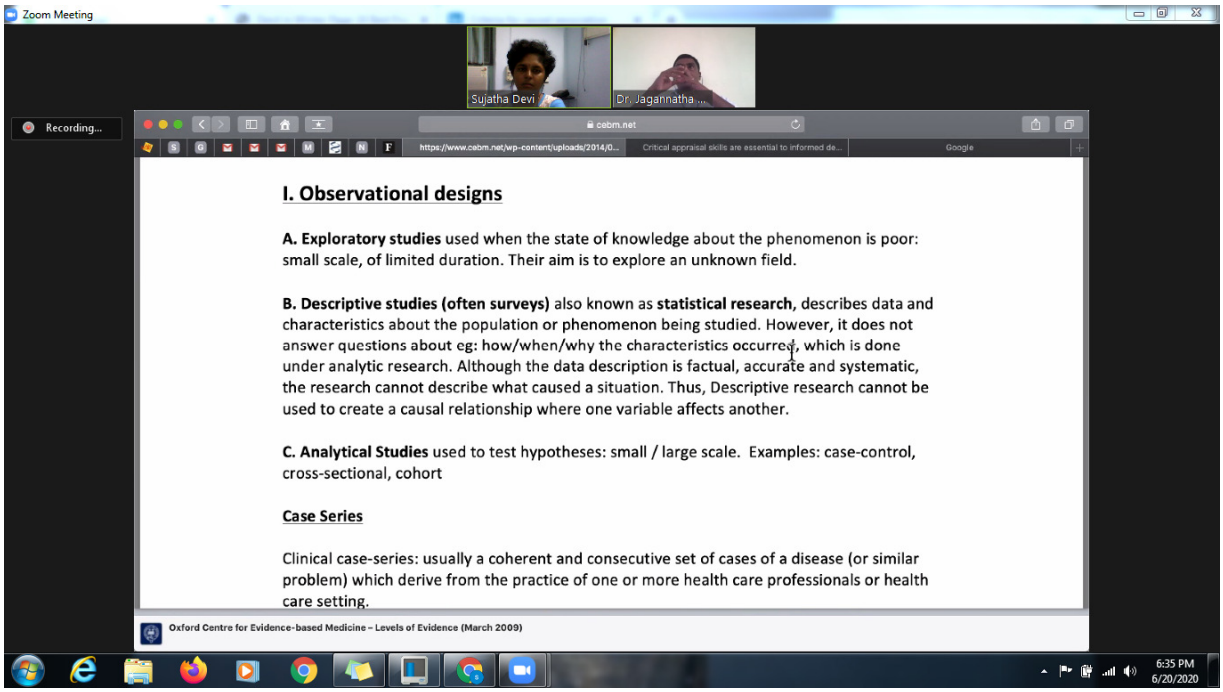
Faculty: Dr. Jagannatha G.V

PG Students: Dr.Sujatha Devi

Total No of PG Students: 1/1

Discussion topic: Critical appraisal of scientific research Part 2
Sub topic : Study designs
Summary :

A brief discussiion about the steps in analysis of the study design was give. What is an exposure, what does assigning exposure mean was explained. The analysis of how to identify the study design like whether the exposure was done by the investigator, whether the samples were randomly assigned or not, whether a control group was chosen or not were explained. the concept of a positive control group and negative control group was explained.the concept of allocation concealment was also explained.the need and importance of a discriptive study was also explained.


Zoom Meeting
Sujatha Devi
Dr. Jagannatha ...
Recording...
I. Observational designs
A. Exploratory studies used when the state of knowledge about the phenomenon is poor: small scale, of limited duration. Their aim is to explore an unknown field.
B. Descriptive studies (often surveys) also known as statistical research, describes data and characteristics about the population or phenomenon being studied. However, it does not answer questions about eg: how/when/why the characteristics occurred, which is done under analytic research. Although the data description is factual, accurate and systematic, the research cannot describe what caused a situation. Thus, Descriptive research cannot be used to create a causal relationship where one variable affects another.
C. Analytical Studies used to test hypotheses: small / large scale. Examples: case-control, cross-sectional, cohort
Case Series
Clinical case-series: usually a coherent and consecutive set of cases of a disease (or similar problem) which derive from the practice of one or more health care professionals or health care setting.
Oxford Centre for Evidence-based Medicine – Levels of Evidence (March 2009)
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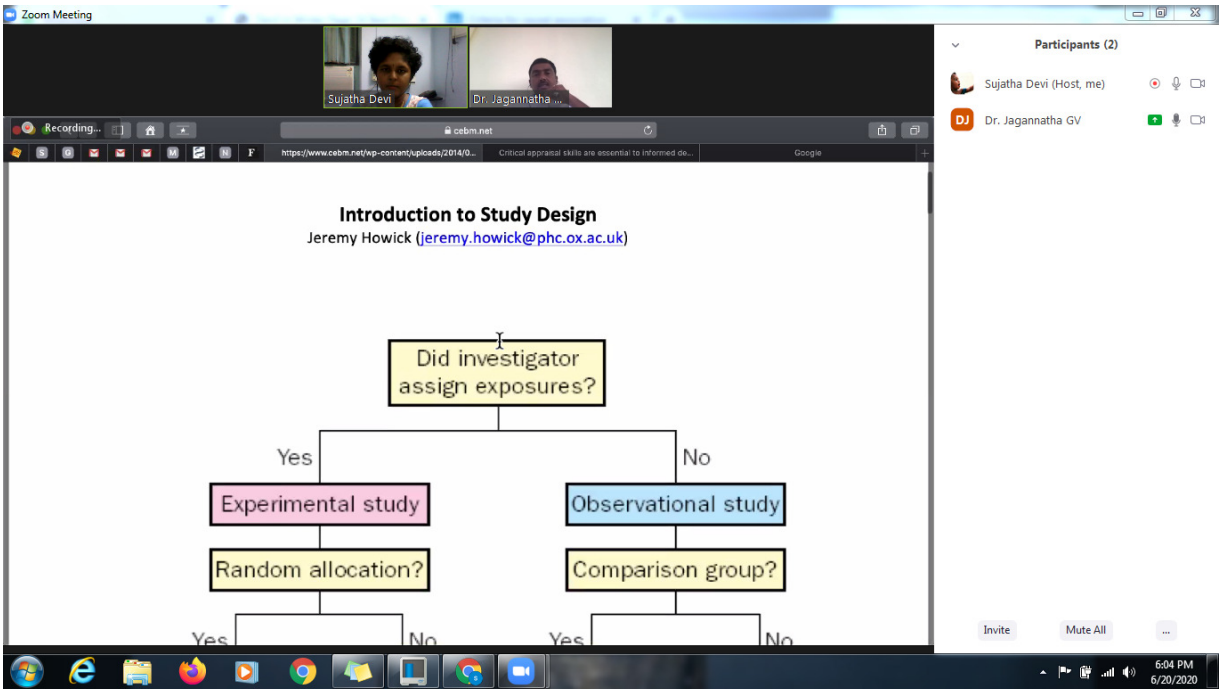
6/20/2020


Zoom Meeting
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Dr. Jagannatha ...
Recording...
Participants (2)
Sujatha Devi (Host, me)
Dr. Jagannatha GV
Introduction to Study Design
Jeremy Howick (jeremy.howick@phc.ox.ac.uk)
Did investigator assign exposures?
Yes
No
Experimental study
Observational study
Random allocation?
Comparison group?
Yes
No
Yes
No
Invite
Mute All
6:04 PM
6/20/2020