IDEAS

Mental Health Insights !!

Burden of disease from each category of mental illness

Mental illness prevalance

Share who reported lifetime anxiety / depression

Age when first had anxiety / depression
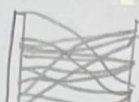
Anorexia / bulimia nervosa estimated cases

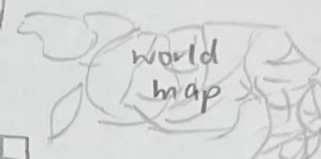Anxiety disorders prevalence

Depression disorders prevalence

Dealt with anxiety / depression by taking prescribed medication
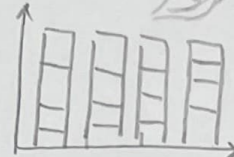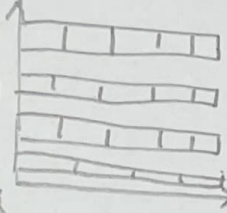
How do people deal with anxiety / depression
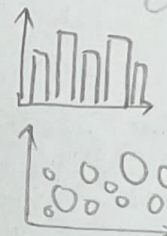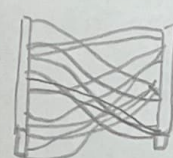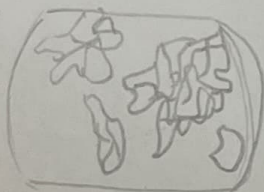
Student mental health (by course)
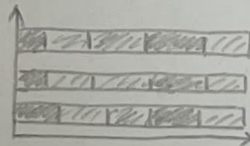
sankey

world map

world map

FILTER

Medication usage for Anxiety / Depression in all countries

Age at First had anxiety / depression (by age group)

Mental illness prevalance in Malaysia

How do people deal with anxiety / depression in Malaysia

CATEGORIZE

Global Medication usage
- country
- medication usage (%)

Age at First Experience of Anxiety / Depression
- age group
- country / region

Mental illness prevalance
- type of disorders

Approaches to deal with Anxiety / Depression
- approaches

COMBINE & REFINE
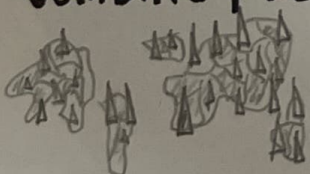
combine medical usage for anxiety / depression & share who reported lifetime anxiety / depression

color - medical usage (%)
shape and size - reported lifetime anxiety / depression (%)

QUESTION

1) Is the visualization method effective in conveying the insights?

2) Are there any technical challenges in implementing these visualisation?

3) Will the visualisation be too overwhelming?

LAYOUT

medication usage (-%)

percentage (%)

Age Group
- < 13
- 13-19
- 20-29
- 30-39
- ≥ 40

country / Region

disorder
- Anxiety
- Depression
- Bipolar

percentage

Approach
- medicine
- talk to friends

country / region

Title : mental Healt Insights

Author : Jace Ang Khai Shuan

Date : 6 October 2024   Sheet : 2

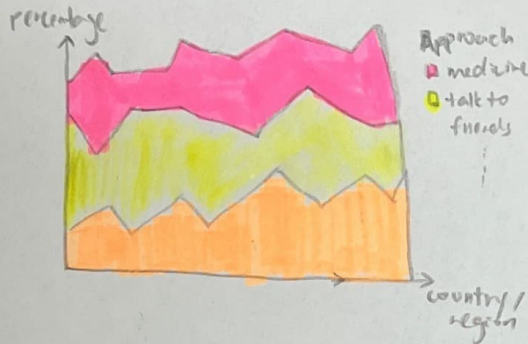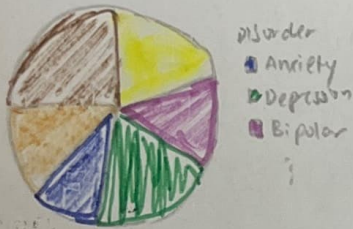Task : Map for global medication usage, stacked bar chart for age at first experienced, pie chart for mental illness prevalance, area chart for approaches dealing with anxiety / depression

OPERATIONS

1) Global medication usage for anxiety / depression
   - hover over the country to view the exact percentage of medication usage
     ↳ light blue represents low medication usage
     ↳ dark blue represents high medication usage
     ↳ grey represents country that has no data

2) Age at first experience anxiety/ depression
   - percentage will be shown on top of each bar
   - hover over to view the details: country, age group, and percentage

3) Mental illness pevalance in Malaysia
   - hover to view the mental illness type and percentage
   - click on it to show all percentage of each mental illness

4) Approaches dealing with anxiety/ depression
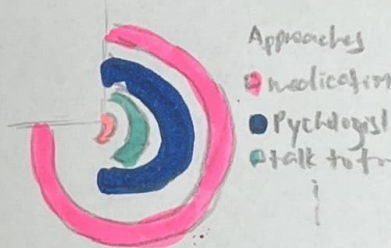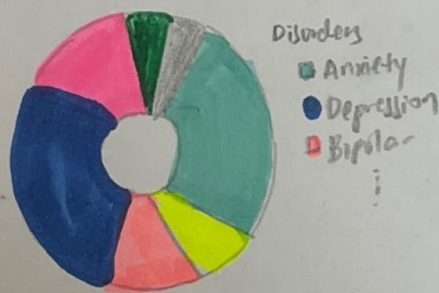   - hover over each point to view the exact percentage and country for the specific approach

FOCUS

in map visualisation:

country with no data ; will show a tooltip like this when hover :

Data is not available in---

Highest Medication usage at 76%.

Lowest Medication usage at 16%.

X

country / region

percentage of people's first age when experience anxiety/depression will be shown

32% 30%
10%   8%
4%   16%
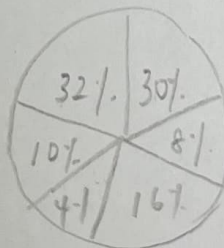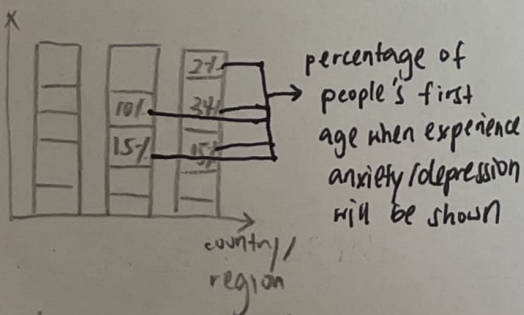
percentage of mental illness prevalance will be shown, total will add up to 100%.

approach

country/ region

the points here shows the persentage of people who tried the method in each different country.

DISCUSSION

+ve : - all countries are included for medication usage, good for comparison on each country.

- easy to compare for each country/region which age group are more likely to first experience anxiety / depression.

- all countries are included to compare the approaches used.

-ve : - not all countries have the data of medication usage

- the approaches will be too overshelving for considering all countries.

LAYOUT

medication usage (%)

Reported lifetime (%)
△ 0-9%
△ 10-19%
△ 20-29%
△ 30-39%

country/region

Percentage

Age Group
■ <13
■ 13-19
■ 20-29
■ 30-39
● ≥40
■ Unspecified

Disorders
■ Anxiety
● Depression
■ Bipolar

Approaches
■ medication
● Pychologist
● talk to fr~

FOCUS

Medication usage (%)
High
↓
Low

Reported lifetime
anxiety / depression (%)
△
△ the bigger
△ the triangle,
the higher
the percentage

	15%	
10%	20%	25%
10%	5%	
	6%	

percentage of
first experience of
anxiety / depression
will be shown

Note: Unspecified means the respondents who refused to answer their age.

Disorder: Anxiety
Percentage: 42%

details will show
when hover over
specific category

- circles might
get smaller
because there
are many
approaches

each color/circle represents an
approach to deal with
anxiety / depression

OPERATIONS

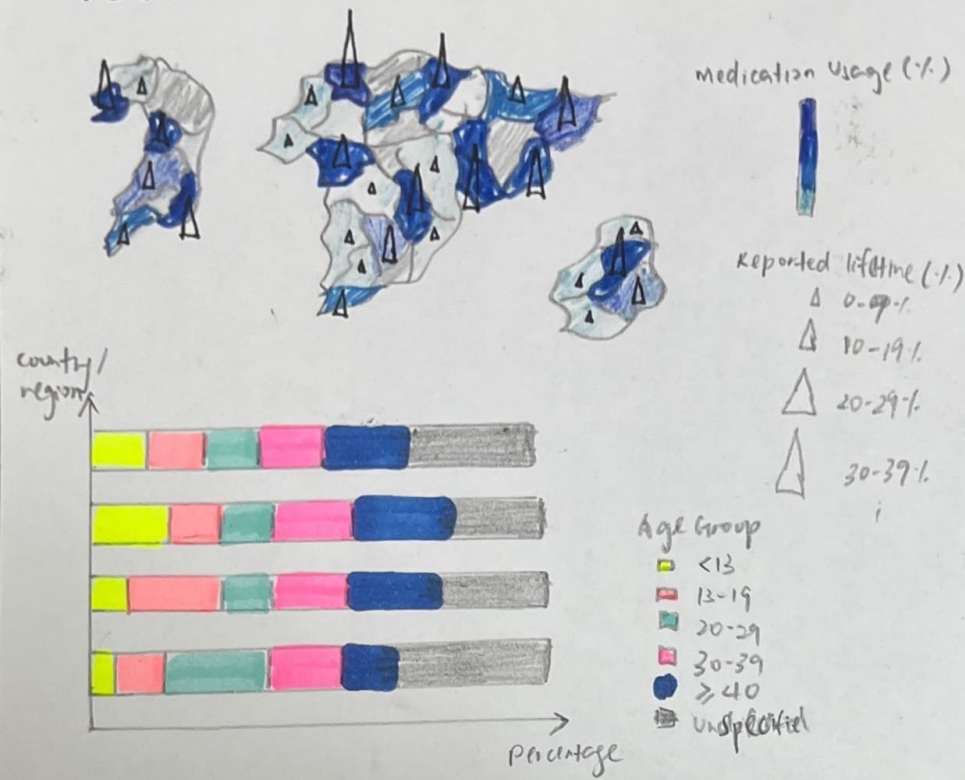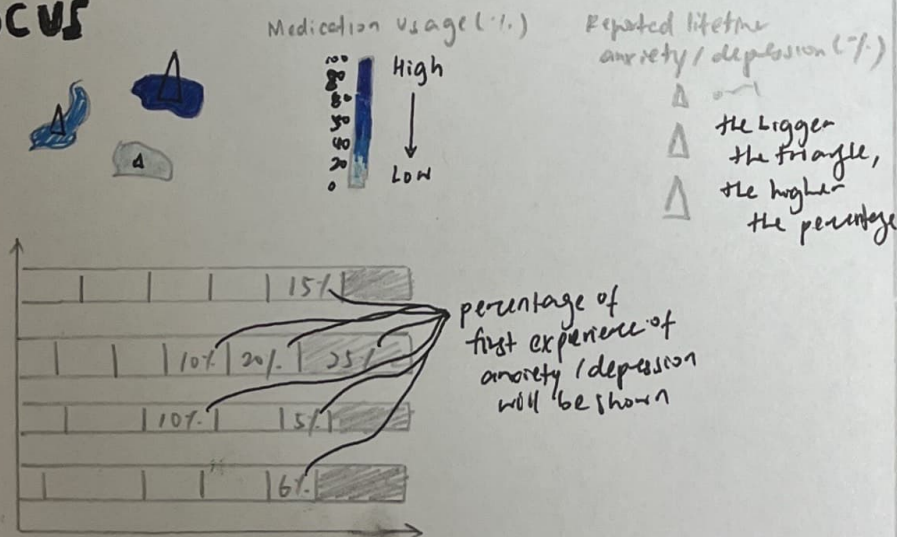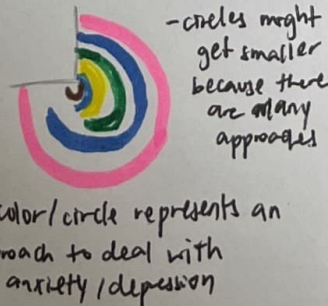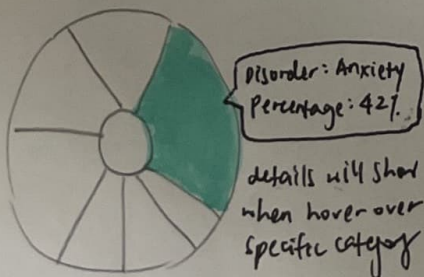1) Global medication usage & lifetime
anxiety and depression
- hover over the country to view the
exact percentage of medication usage
and reported lifetime anxiety/
depression
⤷ color to represents medication
usage
⤷ shape (triangle) and size to
represent reported lifetime anxiety/
depression

2) Age at first experience anxiety / depression
- percentage will be shown on top
of each bar
- hover over to view the details:
country/region, age group, and
percentage

3) mental illness prevalence in
Malaysia
- hover to view the details:
disorder and percentage

4) Approaches dealing with anxiety /
depression in Malaysia
- hover over each circle to show
the exact percentage of people
using the specific approach

DISSCUSSION

+ve : -all countries are included for
the medication usage, and lifetime
reported, very detailed map visualisation
- easier to compare the age group
for each country, can get the insight
of which age group is more likely
to be the first age that experienced.
- simple and clear donut chart, so that
it looks more neat and clean
- ve : - too much details, make the map
visualisation looks complicated
- the spiral chart might gets too overwhelmed
as we have many different approaches

LAYOUT

Medication usage (·/.)
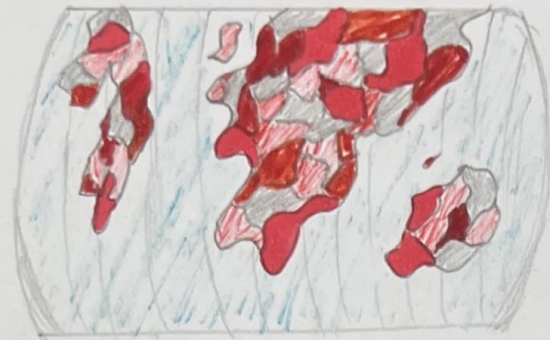
percentage

Age Group
- ☐ <13
- ☐ 13-19
- ☐ 20-29
- ☐ 30-39
- ☐ ≥ 40

county/region

Approaches
- ☐ talk to friends
- ☐ medicaton

Europe

Asia

world

Anxiety

Depression

Bipolar

Title: Mental Health Insights

Author: Jace Ang Khai Shuan

Date: 8 October 2024

Sheet: 4

Task: Map (+ocean & grey layer) for global medication usage, area chart for age at first experienced, sankey diagram for mental illness prevalance (by region), radial chart for approaches dealing with anxiety/depression

OPERATIONS

1) Global medication usage for anxiety and depression
- hover over the country to view the exact percentage of medicaton usage
- highest and lowest medication usage will be shown using annotation
  - if hover over county that has no data, will show in tooltip

2) Age at first experience anxiety/depression
- details of Age Group, county/region, and percentage will be shown in tooltip. (when hover over the point)

3) Mental illness prevalance
- hover over to view the details: region, type of disorder and exact percentage.

4) Approaches dealing with anxiety/depression in Malaysia
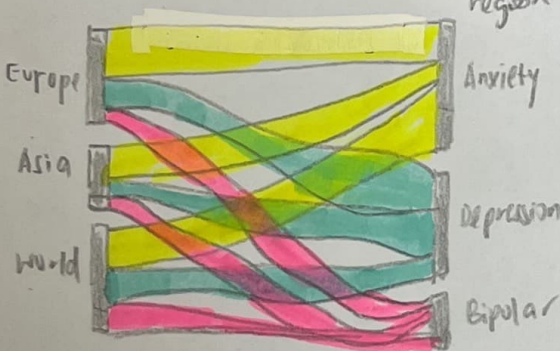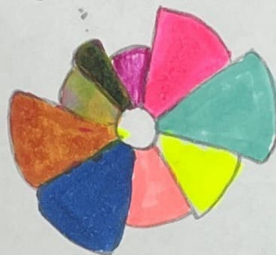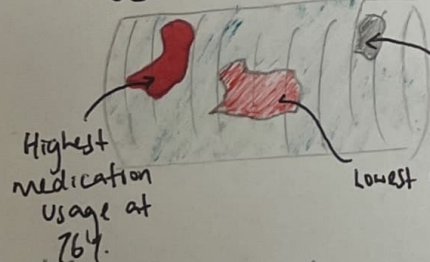- hover over to view the details: approach, percentage of people that use the specific approach
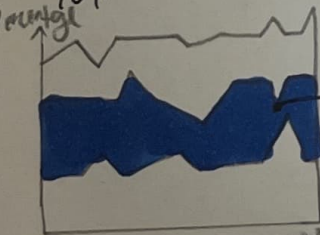
FOCUS

added ocean and grey layer to the map

→ country will no data, use tooltip to show
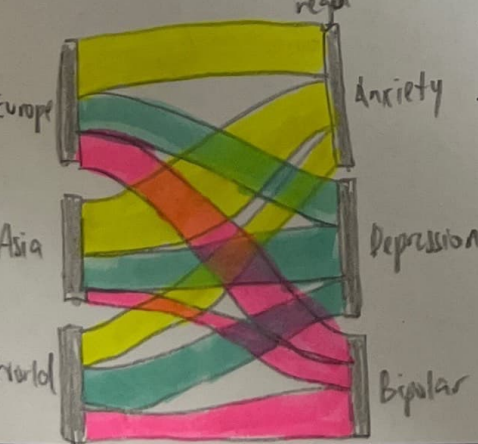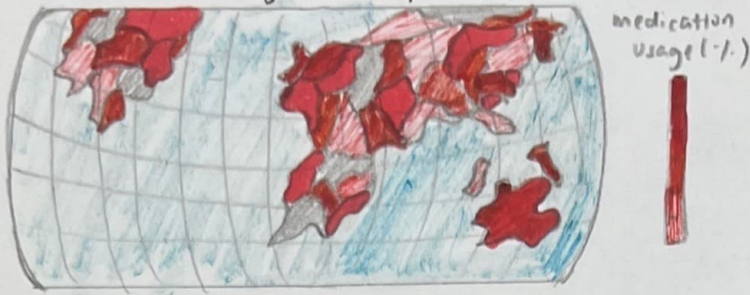
Highest medication usage at 76%.

Lowest medication usage at 16%.

percentage

show details of Age Group, county/region, and percentage in tooltip like this :
> county : ~
> Age Group : 13-19
> Percentage : 20%

county/region

Europe

Asia

world

Anxiety

Depression

Bipolar

- color represents the type of disorders
- thickness of the connections shows the percentage of mental illness prevalaren in specific region
  - the thicker it is, the higher the percentage is.

Approaches dealing with anxiety/depression in Malaysia

↳ color represents different approaches to deal with anxiety/depression
↳ the bigger the part is, the higher the percentage.

DISCUSSION

+ve : - map visualisation is more detailed and not empty.
- the area chart shows better comparison for each age group that first experienced anxiety/depression (overally)
- sankey diagram shows more information (each region, which disorder occurs more)
- radial show all the approaches clearly, vary in size

-ve : - area chart might be confusing to some, as the x-axis represents county/region, where it normally shows years
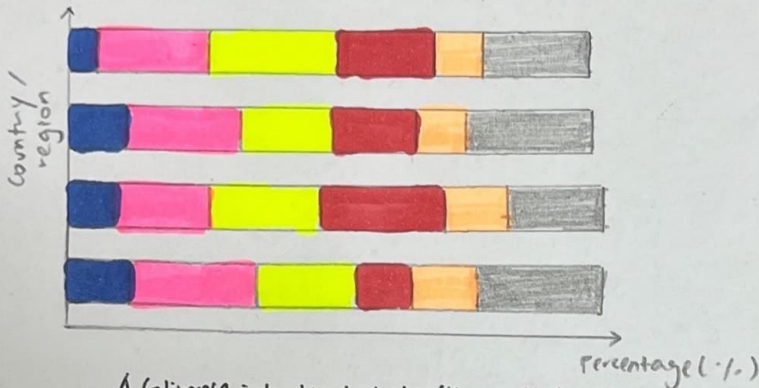- sankey might be a bit overwhelmed, as we have many more regions and disorders.

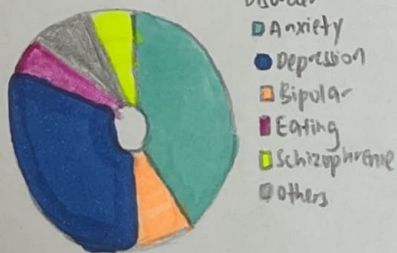# LAYOUT

Global Medication Usage for Anxiety and Depression

medication usage (%)
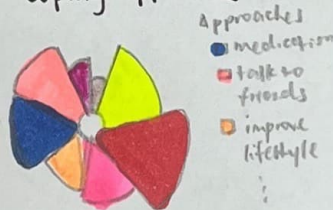
Age at First Experience of Anxiety or Depression

■ <13 ■ 13-19 ■ 20-29 ■ 30-39 □ ≥40 ▣ unspecified

Country / region

Percentage (%)

A Glimpse into Mental Health in Malaysia

Prevalence of Mental Disorders

Disorder
- ▢ Anxiety
- ● Depression
- ▢ Bipolar
- ▦ Eating
- ▢ Schizophrenia
- ▢ Others

Coping Approaches

Approaches
- ● medication
- ▢ talk to friends
- ▢ improve lifestyle
- ?

FOCUS

add annotations:

tooltip for country that has no data:

Data is not available in (country name)

Highest Medical usage at 76.72%.

Lowest Medical usage at 15.96%.

add annotations below horizontal stacked bar chart:

Note: 'Unspecified' refers to respondents who either did not provide an age or refused to answer.

(to clarify in case of confusion)

tooltip:

Anxiety disorders : 52%.   add annotation

Anxiety and depression disorders are the major mental health challenges in malaysia.

tooltip:

Approach: Took prescribed medication
Used by: 27.11% of respondents
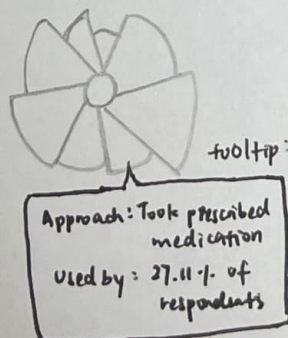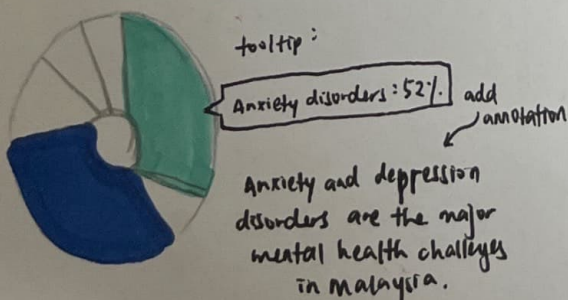
Title: Mental Health Insights
Author: Jace Ang khai shuan
Date: 8 October 2024
Sheet: 5
Task: Final Design

OPERATIONS

1) Global Medication Usage for Anxiety and Depression
- hover over the country to view the exact percentage of medication usage
- color indicating if the percentage is high / low
- if hover over country that has no data (in grey color), data not available will be shown in tooltip

2) Age at First Experience of Anxiety or Depression
- hover to view the details: country / region, age group, and the exact percentage
- color hue indicating different age group
- unspecified explanation is shown using annotation

3) Prevalence of Mental Disorders in Malaysia
- hover over to view the type of disorder and its percentage
- annotations are added for the major mental disorders

4) Coping Approaches in Malaysia
- hover over to view the approaches and percentage of people that used that approach to deal with anxiety or depression

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DETAIL

- Database implemented using CSV files.
- Resources are from Our World in Data
- Web design using HTML, CSS, and Javascript (to implement the charts into HTML)
- All charts are implementing in the json files, using Vega-Lite.
- Datasets will need some cleaning as not all datasets are useful.
- Color choice based on the data (color luminance for quantitative, and color hue for categorical)
- Estimated time to build: 5 days.