



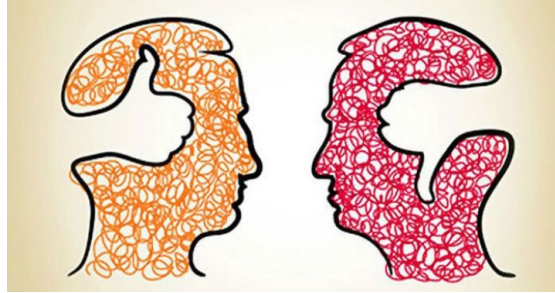
# Mindfulness

## Money, Culture, & Science

A Skeptical Inquiry

# Finding the Target

- My retreat
- Hypothesis
- Realization of personal bias
- Reformulating
- Research Objective



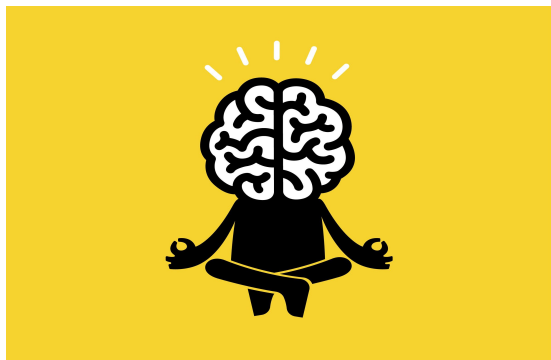
# What is Meditation?

- A practice where an individual uses a technique to train their mind.
- There are many different forms of meditation.
  - Different techniques have different purposes.
  - Helpful to think of “meditation” like “sports”.
    - One of those “sports” is “mindfulness”.



# How about “Mindfulness”?

- The process of bringing one's attention to experiences occurring in the present moment.
  - Observation of the ordinary ebb and flow of the mind and stream of sensations.
- Translates really well into a secular practice.
- “Mindfulness” often used as a stand-in word for all types of meditation.
- I’ll be using “mindfulness” and “meditation” interchangeably.



# A Growing Need

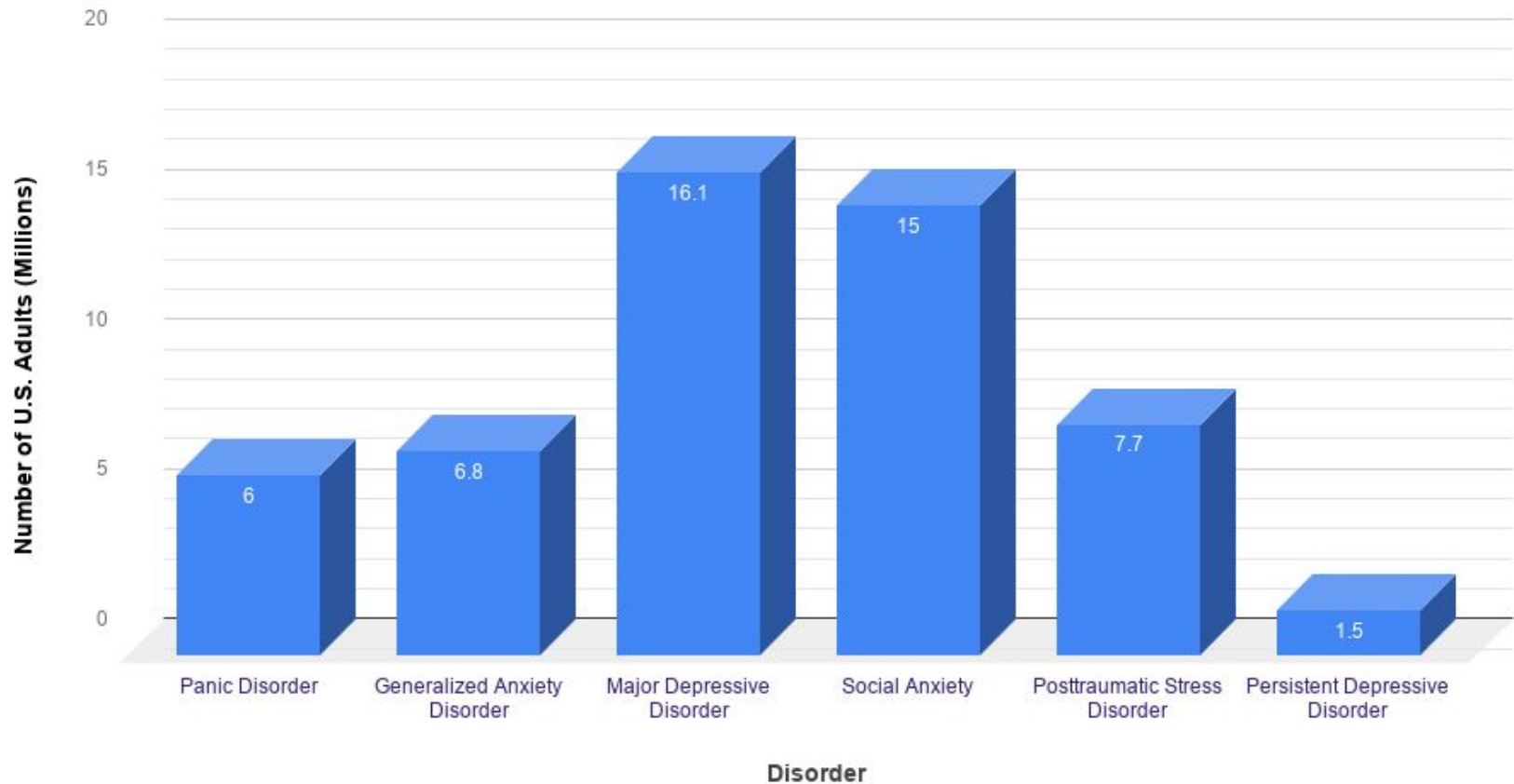
Growth of psychological health problems have adults and youths seeking options





# Anxiety and Depression Disorders in U.S. Adults

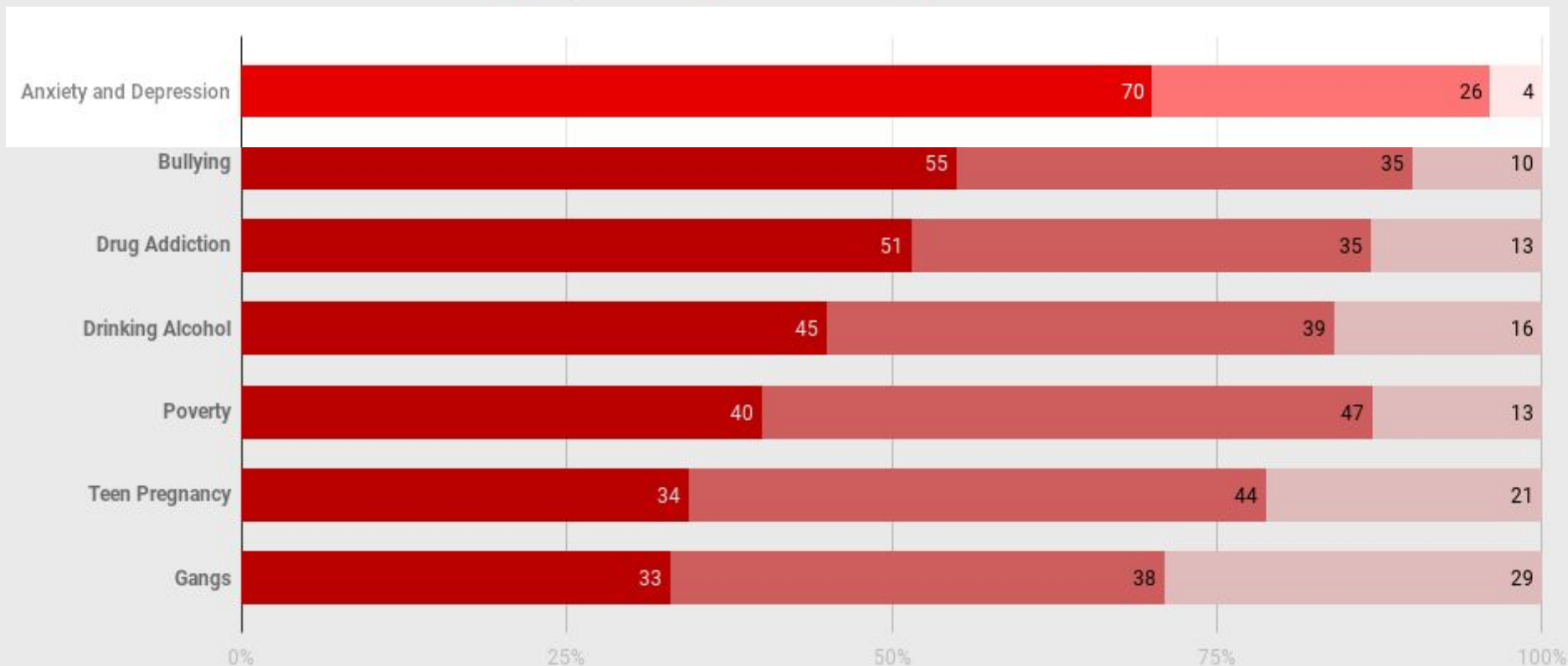
\*Anxiety and Depression Association of America (ADAA)



## Issues Teens Rate as Problems Among Peers in Their Community (Percent)

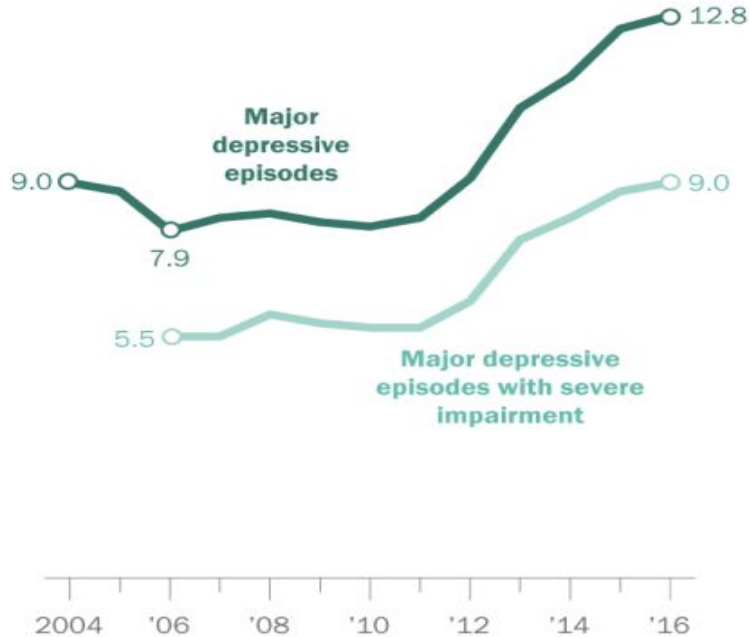
\*Pew Research Center - 2018 Survey of U.S. teens ages 13 to 17.

Major Problem Minor Problem Not a Problem



## In recent years, rising reports of youth depression

% of youths ages 12 to 17 experiencing \_\_\_\_\_ in the past year



Source: 2016 National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration (Department of Health and Human Services).

PEW RESEARCH CENTER



- Anxiety disorders affect 25.1% of children between 13 and 18 years old.
- Research shows that untreated children with anxiety disorders:
  - are at higher risk to perform poorly in school.
  - miss out on important social experiences.
  - more likely to engage in substance abuse.



## Mindfulness

Topic

### Interest over time



Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. A score of 0 means there was not enough data for this term.

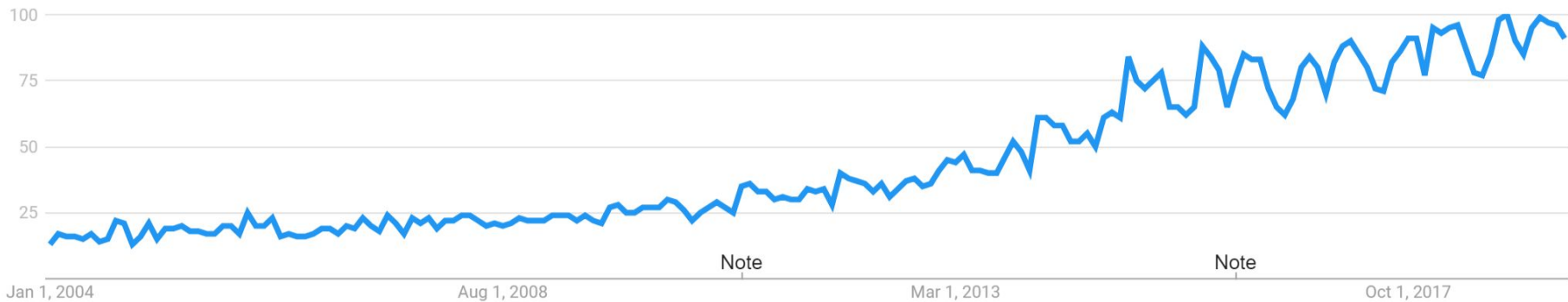
United States ▼

2004 - present ▼

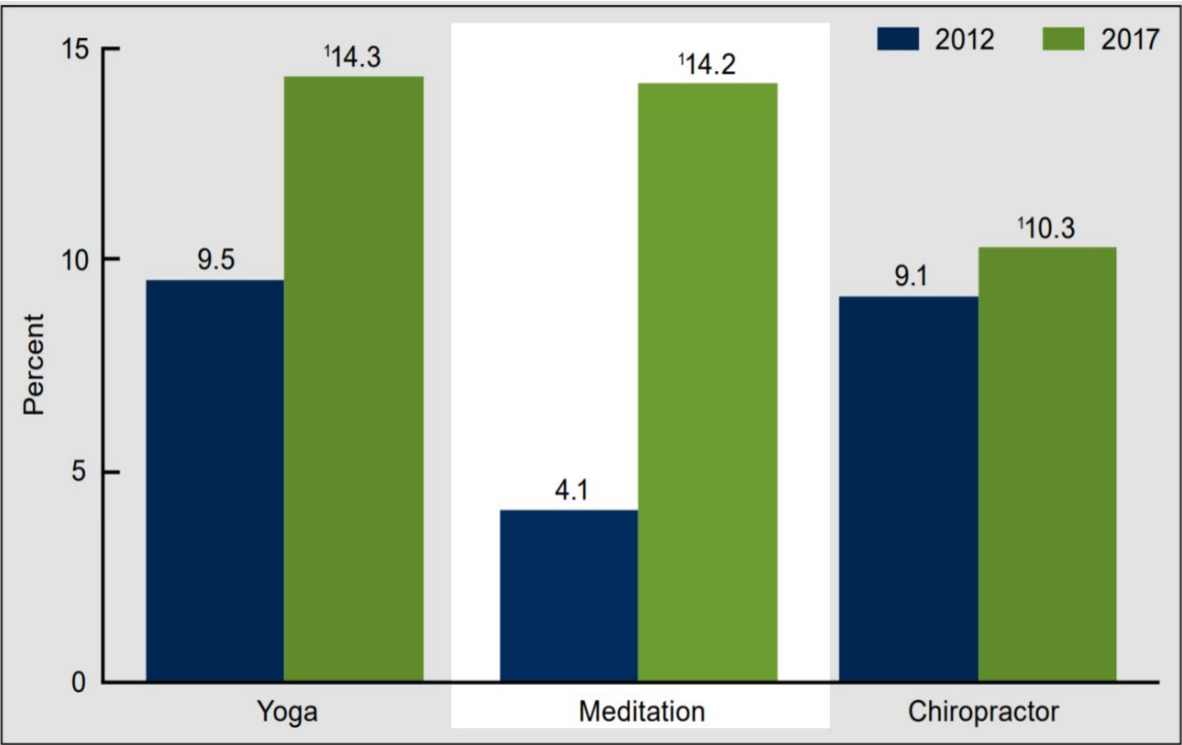
All categories ▼

Web Search ▼

Interest over time ?



# Meditation Outpaces Yoga as Wellness Alternative for Adults



Graph reflects percentage adults who used meditation in the past 12 months when surveyed in 2012 and in 2017.

Shows increase of nearly threefold - from 4.1% in 2012 to 14.2% in 2017.

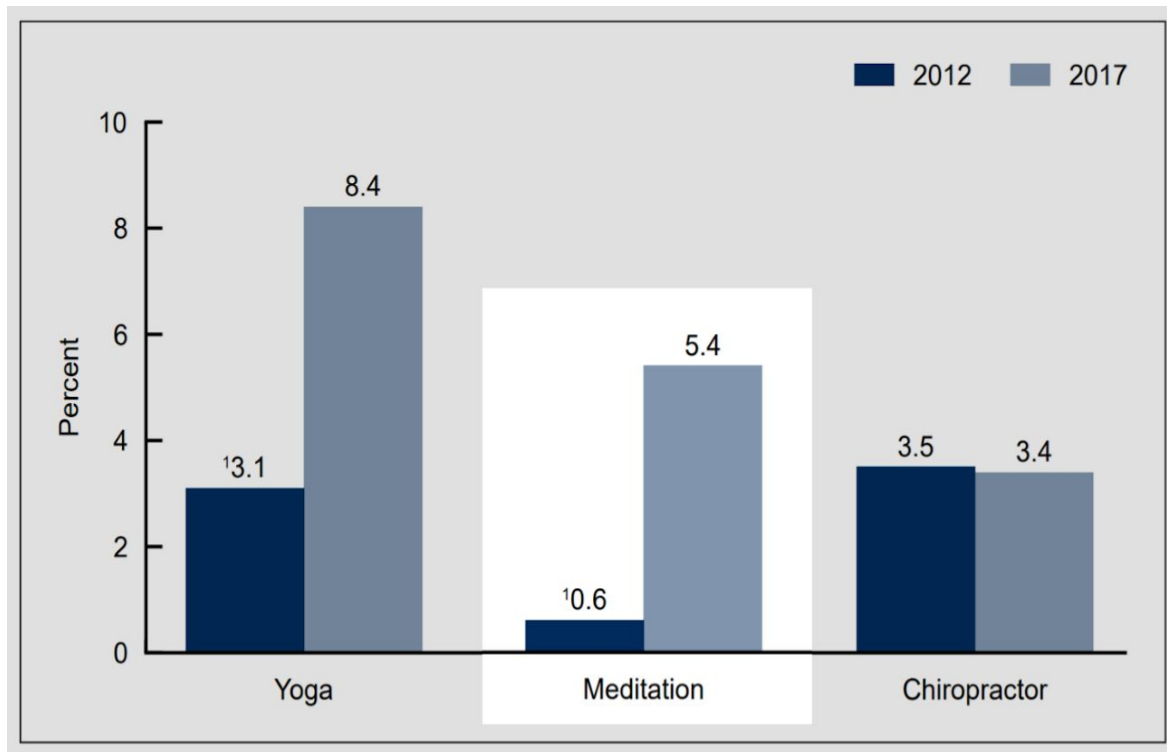
The number of adults who used meditation within the year of 2017 was outpacing those practicing yoga.

\*NCHS, National Health Survey, 2012 and 2017

# Meditation Rates Rose Nearly 5% in Children

The percentage of children 4-17 years old who used meditation rose from 0.6% to 5.4% in 2012 and 2017, respectively.

No significant differences were seen between boys and girls in the use of meditation.



\*NCHS, National Health Survey, 2012 and 2017

# So Why the Skepticism?

## IS MINDFULNESS MEDITATION A CAPITALIST TOOL OR A PATH TO ENLIGHTENMENT? YES

by Robert Wright | Illustrations by Valero Doval  
08.12.17

MENTAL HEALTH

## Where's the Proof That Mindfulness Meditation Works?

The ubiquitous technique for relieving stress and pain has remarkably little scientific evidence backing it, a group of scientists contend

By Bret Stetka on October 11, 2017

Psychology

## Mindfulness may have been over-hyped

Health & Science

## Mindfulness meditation is huge, but science isn't sure how, or whether, it works

## Has Mindfulness Become the New Kale?

01/16/2018 05:50 pm ET

## Mindfulness meditation in America has a capitalism problem

Can the mindfulness movement resist becoming a tool of self-absorption?

By Sean Illing | @seanilling | sean.illing@vox.com | Updated Apr 7, 2019, 10:20am EDT

## Mindfulness: Capitalism's New Favorite Tool for Maintaining the Status Quo

written by Kali Holloway / AlterNet | July 11, 2015

# Where Critics Point the Finger

1. Meditation as big business
2. Pop culture influence (“McMindfulness”)
3. History of weak research



# Money and Mindfulness

- **2015**

- Saw nearly \$1 billion in revenue for mediation industry.
- Doesn't include revenue generated from nearly 1,000 mindfulness apps.
- Headspace - mindfulness industry's top app
  - Had been downloaded 6 million times and had raked in \$30 million.

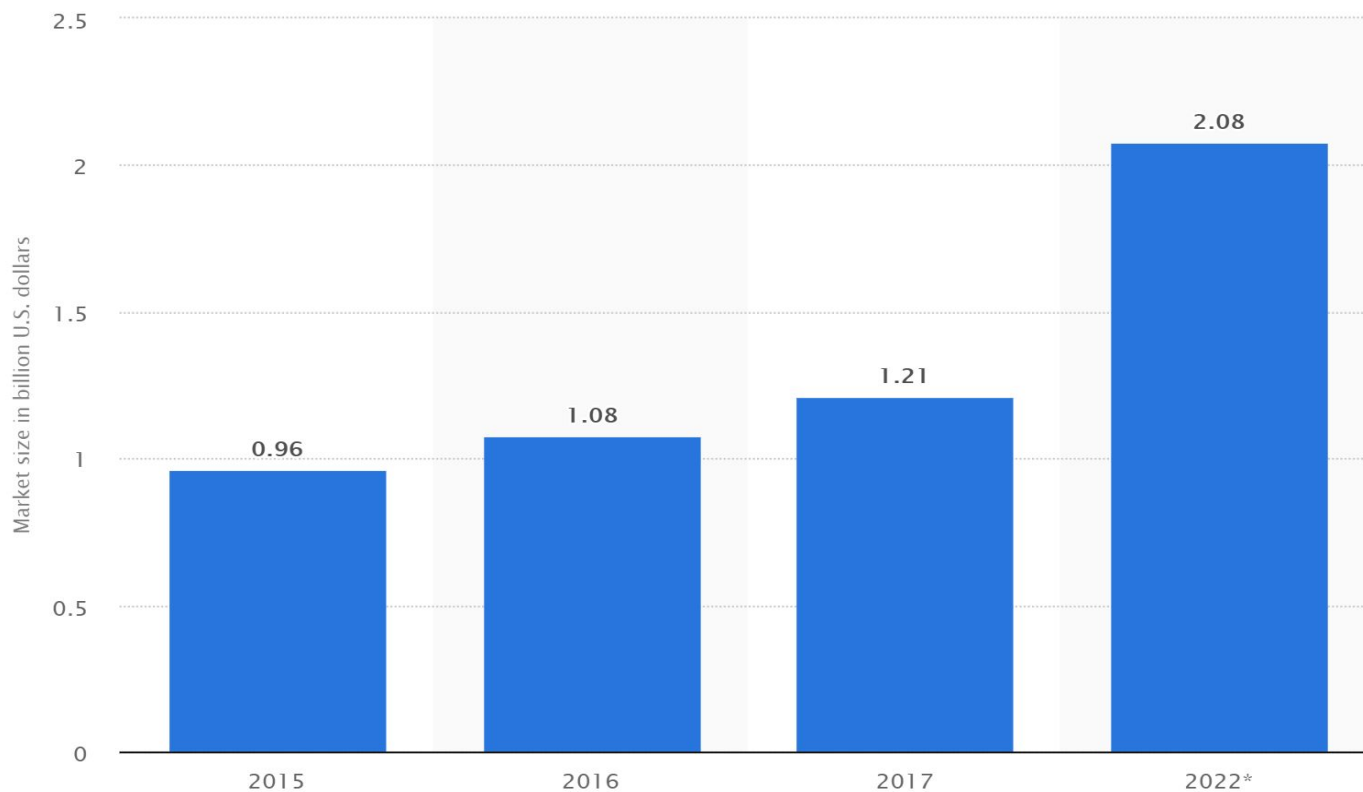
[1]

- **2018**

- Both Headspace and Calm have been downloaded more than 38 million times.
- Each have 1 million paid subscribers.
- More than 2,000 new meditation apps launched over the past three years. [2]



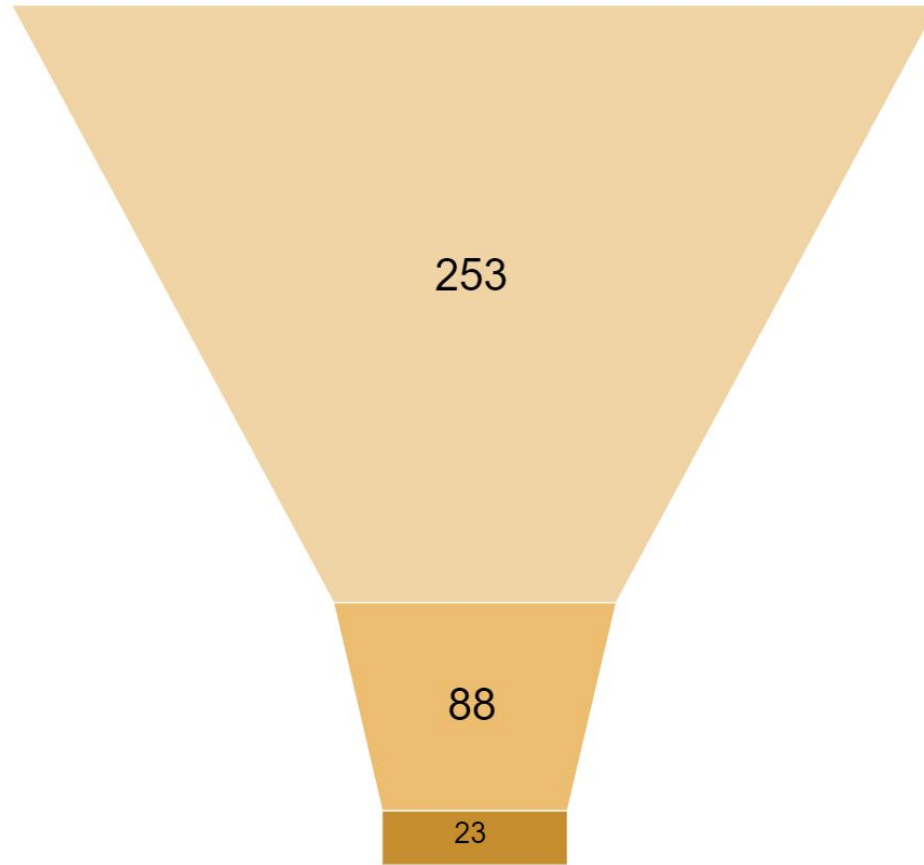
# Past and Projected Growth - U.S. Meditation Market



A vibrant collage of various mindfulness and wellness books and magazines. The items are overlapping and set against a bright yellow background. Visible titles include:

- Planet Mindful**: "CHOOSING A CALM LIFE" and "12 WAYS TO DELIGHT IN THE PRESENT".
- The Mindfulness Book**: "NEW Mindfulness and Health".
- Stress Less**: "Stress Less! Positive".
- How to Reduce Stress**: "THE POWER OF MINDFULNESS", "How to Stay Positive", "Spice Up Your Love Life", "The Benefits of Intuitive Eating", "Natural Pain Relief", "Build Stress Resilience".
- The Happiness Book**: "THE SCIENTIFIC GUIDE TO FEELING HAPPIER".
- How to Beat Stress**: "THE SCIENTIFIC GUIDE TO FEELING HAPPIER", "50+ Ways to Make Every Day Better".
- Exercise Plan**: "DESIGN YOUR OWN Exercise Plan", "Empower your vitality with the triple forms of physical activity".
- Everyday Mindfulness**: "Simple Buddhist Practices You Can Do", "Your Daily Life as a Spiritual practice", "Anywhere, Anytime".
- The Mindfulness Journal**: "KINDNESS • CONNECTION • GRATITUDE • INSPIRATION • JOY", "Banish Stress, Improve Focus And Feel More At Peace", "The Art of Slowing Down", "Discover Your Life Daily Journal Reflections".
- 10 Biggest Concerns About Spirituality**: "AT YOU NEED TO KNOW ABOUT CBD", "spirituality & Health", "The Real Body Connection".

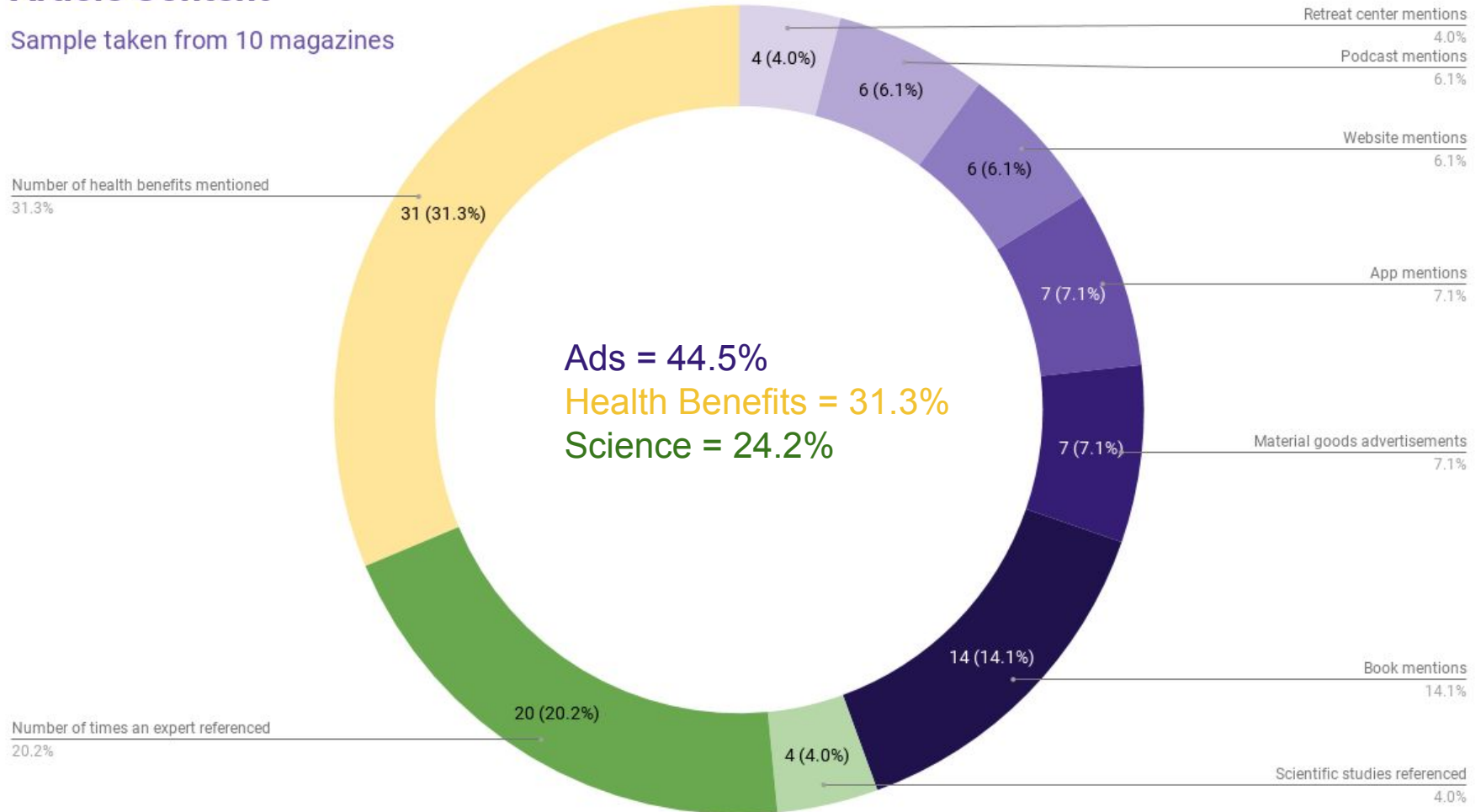
# Magazines



■ Total magazines ■ Wellness magazines ■ "Meditation"/"Mindfulness" as subject

# Article Content

Sample taken from 10 magazines

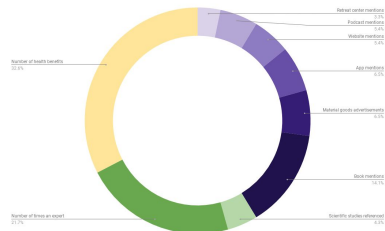


# Talking points from sample

Sample number of magazines = 10.

Total number of meditation articles from sample = 16.

- Total number of advertisements = 44.
- Total number of scientific studies referenced = 4.
- Total number of experts (PhD, researcher) referenced = 20.
  - 13 experts had a book referenced.
  - Only 1 expert had reference to his own, professional study.
- Out of 31 health benefits mentioned, only 1 claim (mindfulness eases anxiety), was backed by an expert who extracted it from first-person research.





A word cloud featuring various health and wellness terms. The words are arranged in a dense, overlapping manner, with some words being significantly larger than others. The colors of the words include shades of pink, blue, green, yellow, orange, and purple. The background is a solid dark blue.

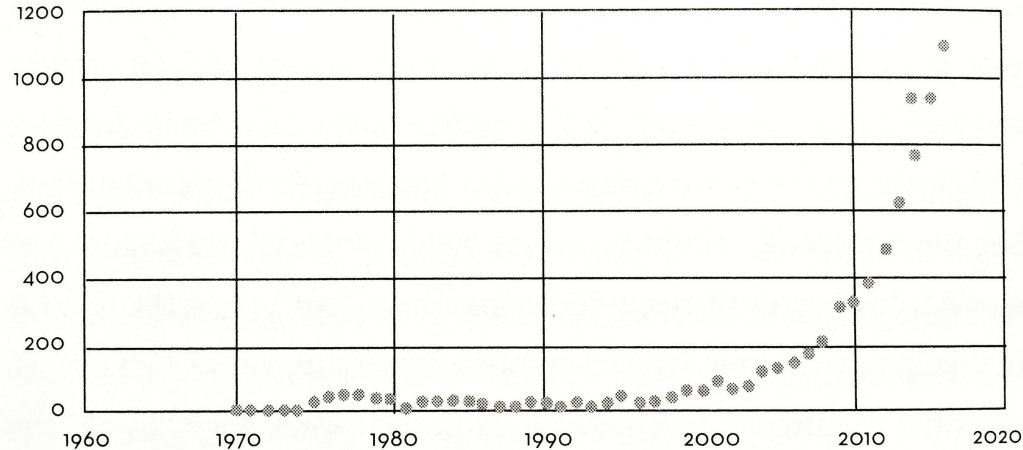
attention  
better mental health  
social anxiety  
improved brain function  
"improved energy"  
social skills  
insomnia  
focus  
inflammation  
calm  
stop "mental chatter"  
self control  
athletic performance  
"offset neurodegenerative disease"  
health  
high blood pressure  
greater compassion  
digestion  
pain management  
"mental edge"  
heart disease  
"creativity"  
depression  
self control  
slows aging  
"enhanced well-being"  
obesity  
muscle tension



# Research Rapidly Escalates After 2000's

- Research on meditation began in the 1970's.
- Annual numbers:
  - 925 published articles in 2014
  - 1,098 in 2015
  - 1,113 in 2016
- Currently over 6,800 total published articles.

Publication Count for Scientific Studies on Meditation or Mindfulness, 1970-2016



# Red Flags of Research

- “Peer-reviewed” journals vary in standards
- “Quantitative” vs “qualitative” research measures
- Different types of meditation
- Control Groups
- W.E.I.R.D.



# The Very Best Studies

UW Madison research group, in searching for “A-level” journals that meet criteria:

A search for one type of meditation (compassion) yielded an initial search result of 231 studies.

Narrowed down to 37 when compared to top design standards.

Further narrowed to 8 total studies when examined for the strength of the design standards.

# The Very Best Studies

A 2014 John Hopkins meta-analysis of meditation studies:

Found that of the more than 6,000 empirical studies collected, over 4,800 had no control group and were not randomized.

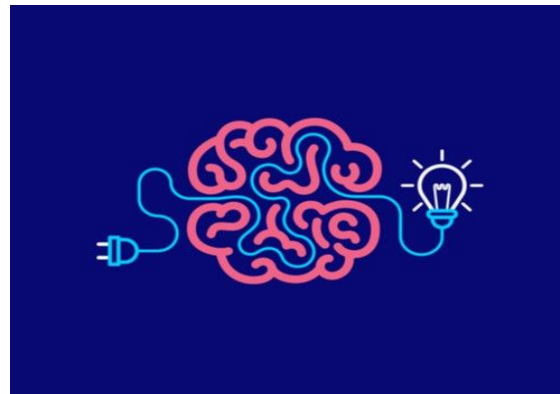
Further, concluded that only 47 of the studies in the review were considered strong enough to qualify for analysis.

# Findings of the John Hopkins Review

- Mindfulness could lessen anxiety and depression, as well as pain.
  - The degree of improvement was about as much as for medications, without the side-effects.
  - Concluding that mindfulness-based therapies are a viable alternative treatment.
- However, no benefits were found which could help for:
  - eating habits
  - sleep
  - substance abuse
  - addictions
  - weight problems

# Coming Full Circle.

Mindfulness + money = skepticism.



Pop culture adds a dimension of superficiality to meditation, which turns people off.

Although science has shown meditation is beneficial for stress and psychological related conditions, a large amount of research is faulty at best.

Critics of meditation have good reasons to be suspicious.



# Despite all of this:

- There is a growing number of high integrity research happening (especially here at UW-Madison).
- Mindfulness, when taught correctly has benefits for those who practice.
- The spread of meditation, regardless of the fact that people are profiting, is overall positive.

<https://ggia.berkeley.edu/>

<https://centerhealthyminds.org/>

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