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#### **A:CARE CONGRESS**

# Shhhh... avoiding acute crises in 'silent disorders'

#### **Prof. Michael Strupp**

Professor of Neurology, Department of Neurology and German Center for Vertigo and Balance Disorders, Hospital of the Ludwig Maximilians University, Munich, Germany

#### **Prof. Joseph Zohar**

Director of the National Post-Trauma Center, Research Foundation by the Sheba Medical Center, Israel

#### **Prof. Atul Pathak**

Professor of Medicine and Head of the Department of Cardiovascular Medicine at the Princess Grace Hospital, Monaco

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## SHHHH... AVOIDING ACUTE CRISES IN 'SILENT DISORDERS' Compliance, Adherence and Persistence. My personal experience, opinion, recipe and vision

**Prof. Michael Strupp,** MD, FRCP, FAAN, FANA, FEAN Department of Neurology and German Center for Vertigo and Balance Disorders University of Munich

Germany

#### Disclosure

Joint Chief Editor of the Journal of Neurology, Editor in Chief of Frontiers of Neuro-otology and Section Editor of F1000.

Speaker's honoraria from Abbott, Actelion, Auris Medical, Biogen, Eisai, Grünenthal, GSK, Henning Pharma, Interacoustics, MSD, Otometrics, Pierre-Fabre, TEVA, UCB, Viatris.

Consultant for Abbott, Actelion, AurisMedical, Decibel, Heel, IntraBio and Sensorion. Shareholder of IntraBio.

#### Distributor of

- "M glasses"
- "Positional vertigo APP"



## Didactic concept and content

#### FIRST SESSION: NEUROLOGIST, PSYCHIATRIST AND CARDIOLOGIST ...



Clinically oriented for your practice and your next patient



Concrete examples with real patients' stories

- Covering relevant daily issues in your practice
- Various scenarios, illustrated by patients with neurological disorders



Often neglected:

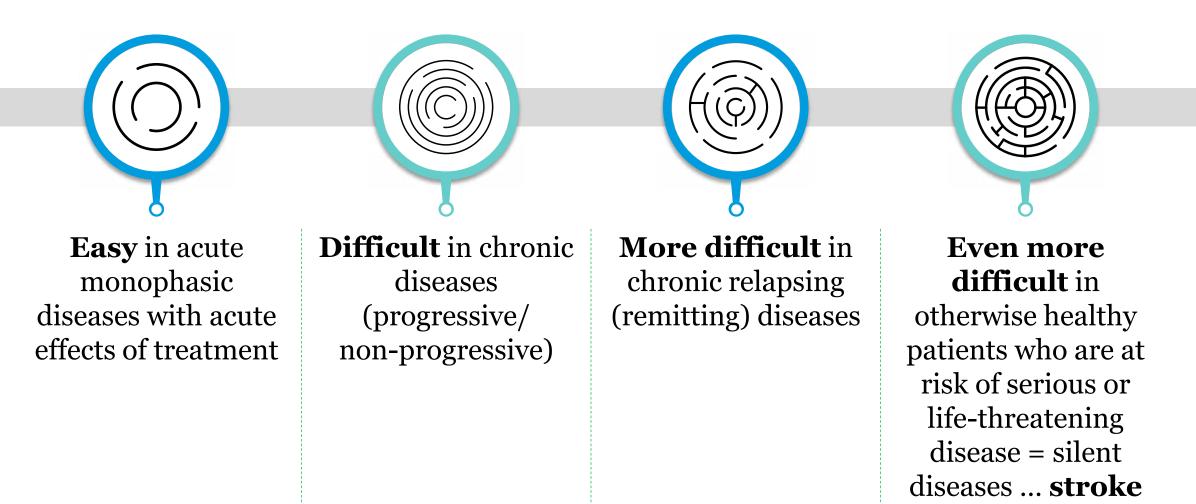
Doctors' permanent compliance, adherence and persistence is also required for the success of your measures (short half-life time on both sides!)



**CO**nsultation of the **patient**, **family**, **caregivers**, **colleagues**!

**CO**operation of **all of them**: teamwork

**CO**ntrols with **pre-fixed follow-up consultations**, **nowadays also remotely**!



## Compliance, adherence and persistence

#### **MY PERSONAL EXPERIENCE, OPINION, RECIPE AND VISION**

## CONCRETE ISSUES IN YOUR CLINICAL PRACTICE AND SOLUTIONS TO BE CONSIDERED AND EXPLICITLY DISCUSSED WITH PATIENTS AND CAREGIVERS



**Delay** of onset of positive treatment effects

• Drug, Dosing, Duration

Q.

## First side-effects or even worsening of symptoms



Why are they not following your advice?Effects are not noticed at all by the patient: primary, secondary preventive or disease modifying treatment



**Consequences** of non-compliance to be explicitly discussed



**Delay** of re-occurrence of symptoms when treatment is stopped

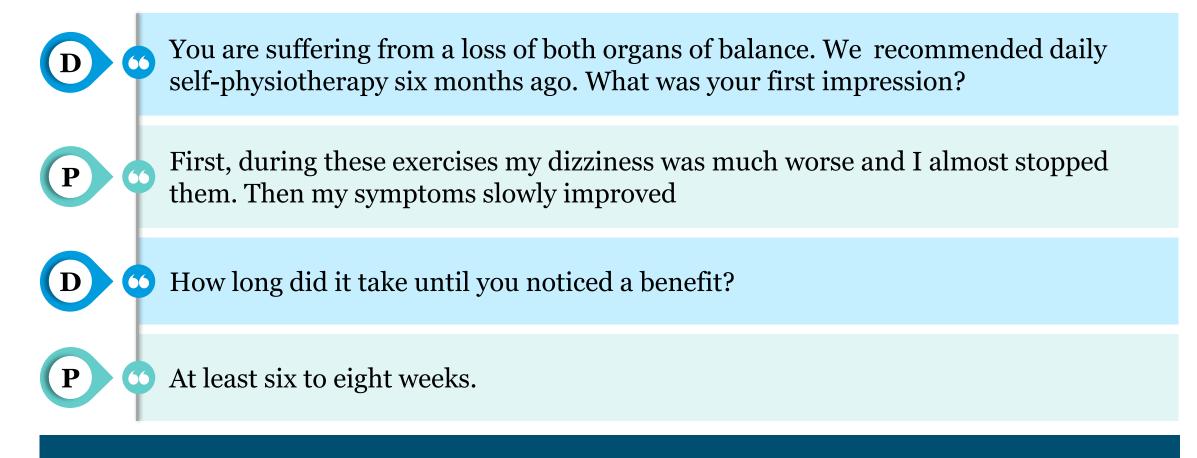


**Best- and worst-case scenario** to be discussed

Potential **alternatives** to be discussed

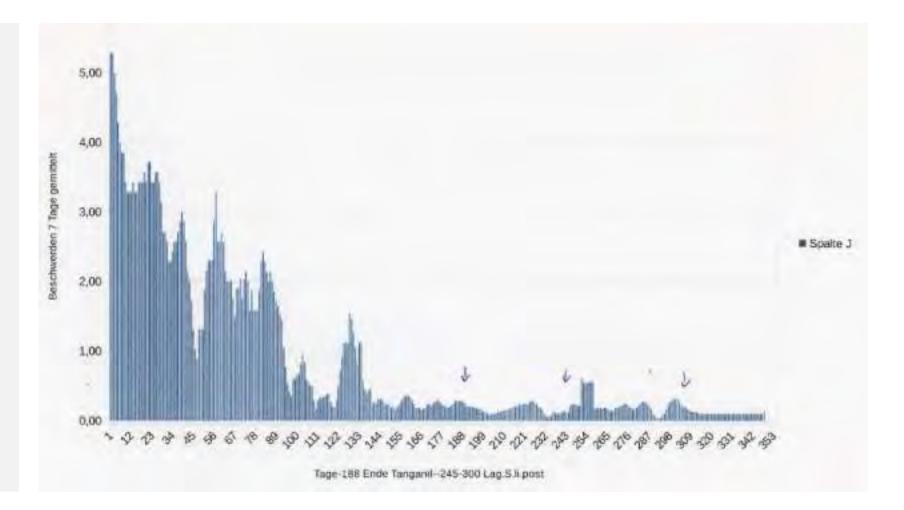


## Real cases which illustrate some of the problems



First, side-effects and it takes time until there is a benefit ...

Migraine: delay till there is a benefit: **100 days**+



You are suffering from recurrent short attacks of vertigo. We gave you a medication.

Nothing good first, only tired, drowsy and even more dizzy.

What about the short attacks?

Well, they are gone, However, my quality of life is still worse than before treatment! I think I may stop the treatment

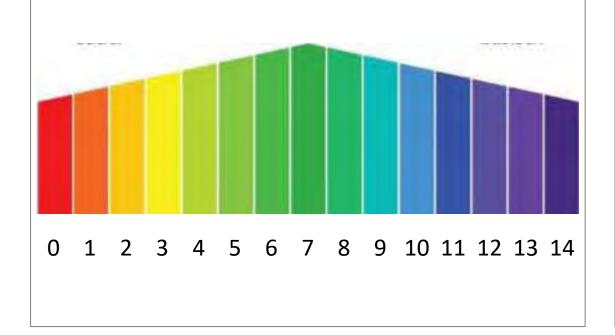
Now we will slightly reduce the dosage of the medication and are sure that we will find a good balance between benefit and side-effects. We are very sure about that.

First, side-effects, reduced functioning and quality of life. High risk that measures are stopped ... needs particular consulatin and education.

## Approach and explanations to the patient

#### TITRATING BENEFITS AND SIDE-EFFECTS ... LIKE IN CHEMISTRY TO A PH OF 7 ....

#### **KEEPING THE BALANCE BETWEEN BENEFITS AND SIDE-EFFECTS**





https://www.google.com/search?q=ph&sxsrf=AOaemvLogj18QvYMmZ2KZ0NYeGQu6baqg:1634045926383&source=lnms&tbm=isch&sa=X&ved=2ahUKEwipivS3\_8TzAhUKGew KHcJuCRsQ\_AUoAnoECAEQBA&biw=1536&bih=817&dpr=2#imgrc=0tFRyMZerUTpAM



You are suffering from Menière's disease. We were treating you with a medication for two years and you were free of episodes of vertigo. Then you stopped the medication completely. How long did it take until you had another attack of vertigo and hearing loss?



First, I noticed no difference. But after three months I had three attacks in a row with a fall and persisting severe hearing loss ... now I am in a really bad condition.

Menière's disease: Prolonged treatment effects and then relapse with a delay

D

You have been suffering from epileptic seizures for 20 years. We treated you with three drugs. Then you were free of seizures for two years and you stopped the medication completely from one day to the next on your own. What happened after three days



I do not remember what happened, but I was admitted to an intensive care unit. Later I was told that I had many and very long-lasting seizures. ... Let me tell you: I will never stop the medication again ...

Epilepsy: Epileptic status after completely stopping taking medication.

You suffered from acute weakness of your left arm one year ago. We found out that this was due to a small stroke caused by irregular heart beating and we treated you with tablets. Two weeks ago you stopped this medication. Why did you do that?

Well after such a long period I thought there is no need anymore.

What happened three days ago?

Ρ

I had problems speaking, fortunately, it is better now.

Secondary prophylactic treatment ... primary prophylactic treatment is even more challenging ...

## One additional measure to improve CAP TO FINISH MY LECTURE WITH POSITIVE AND OPTIMISTIC STATEMENTS

#### **Remote management of your patient!**

Frequent consultations of your patients possible

Evaluation of side-effects, effects and acute events

Convenient for the patient: no traveling

Doctors and patients already got used to technology

Covid: challenge and catalyst





## SHHHH... AVOIDING ACUTE CRISES IN 'SILENT DISORDERS' The silence around ADHERENCE

#### **Prof. Joseph Zohar**

National Post-Trauma Center, Research Foundation by the Sheba Medical Center, Tel Aviv University, Israel

#### Disclosures

#### AFFILIATION

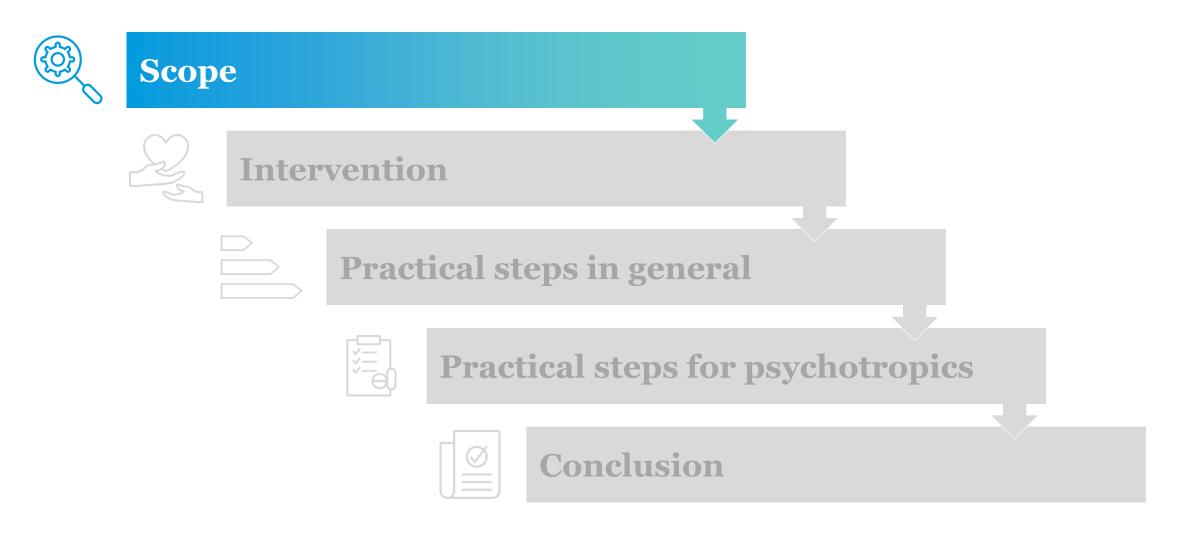
DISCLOSURE

- Post-Trauma Center, Sheba Medical Center, Israel
- Tel Aviv University, Israel

I have the following potential conflict(s) of interest to report:

| <u>Type of affiliation/financial interest;</u> | Name of Commercial company   |
|--|--|
| Receipt of grants/research supports:           | Lundbeck, Servier, Brainsway & Pfizer, NIH, DoD  |
| Receipt of honoraria or consultation fees:     | Servier, Pfizer, Abbott, Lilly, Actelion, AstraZeneca,<br>SunPharma, Roche and Brainsway |
| Participation in company sponsored:            | Lundbeck, Roche, Lilly, Servier, Pfizer,   |
| Speaker's bureau:                              | Abbott, SunPharma and Brainsway  |
| Stock shareholder:                             | Nil  |
| Spouse/partner:                                | Nil  |

#### Structure





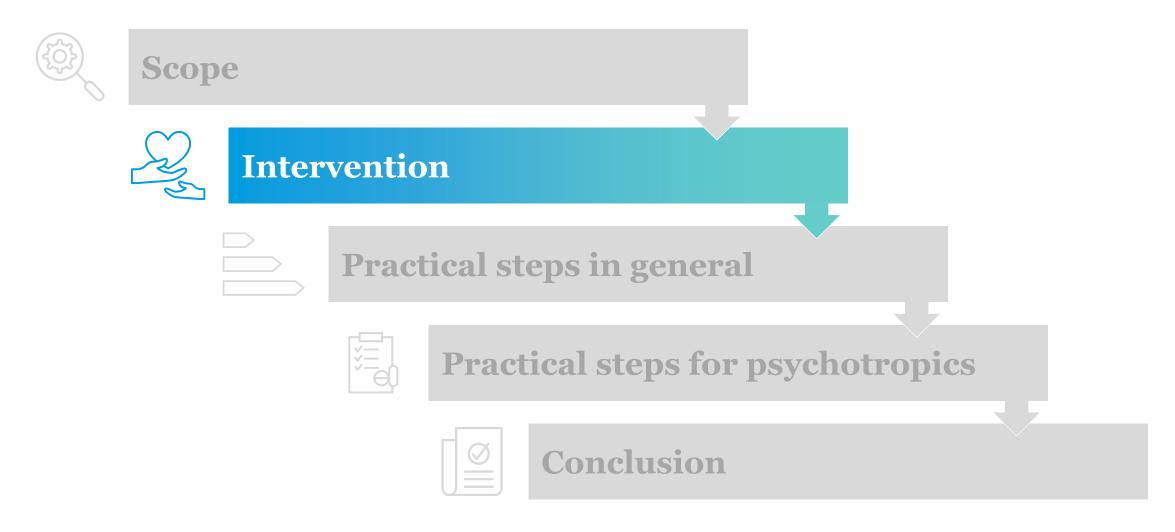
An estimated one half of patients with chronic diseases maintain adequate medication adherence, and medication nonadherence accounts for 30% to 70% of all adverse medication—related hospitalizations in the United States (Burkhart & Sabate, 2003; Toh, Jackson, Gascard, Manning, & Tuck, 2010)

riers to medication adherence in chronic heart failure ients during home visits

Tong Toh, Bruce Jackson, Debra Joy Gascard, Alison R Manning, Emily J Tuck

of Clinical Sciences at Monash Health

#### Structure



#### Intervention

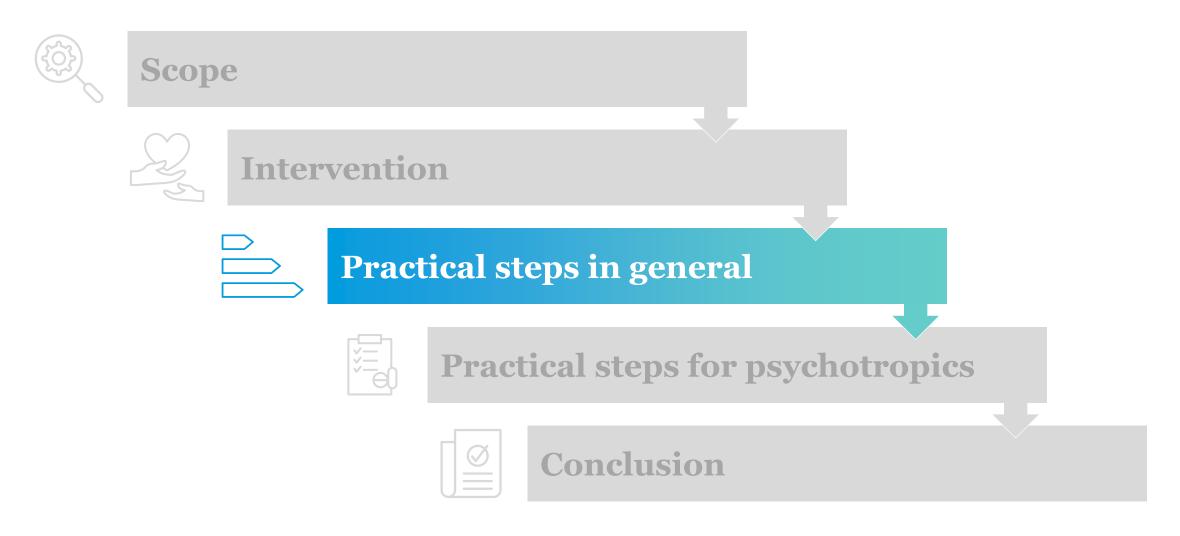
#### **Increasing patient involvement** in treatment have the most potential to **improve adherence** and hence outcome in mood disorders

Review > Curr Opin Psychiatry. 2006 Jan;19(1):44-9. doi: 10.1097/01.yco.0000191501.54034.7c.

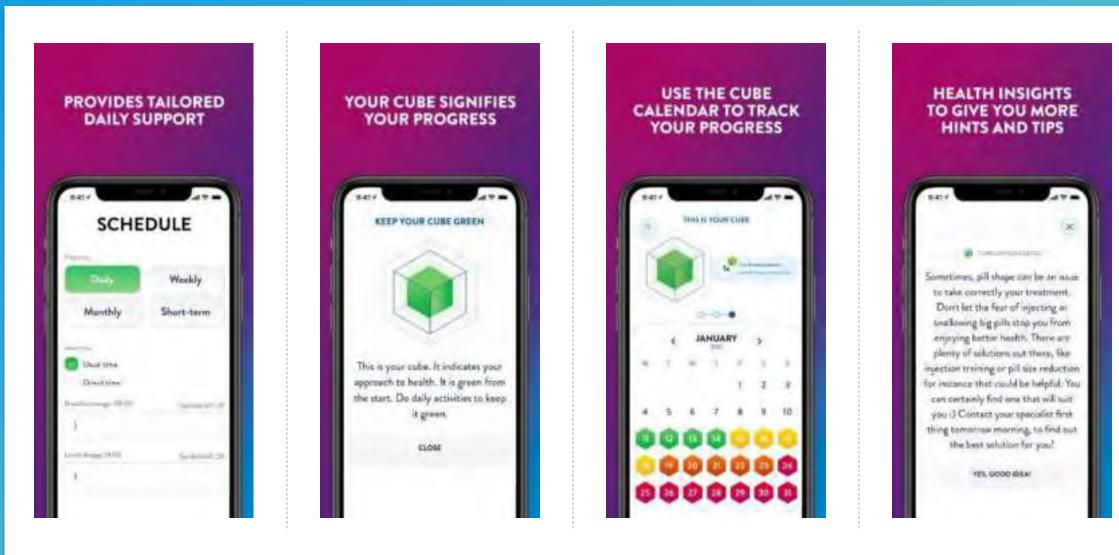
#### Adherence to treatment in mood disorders

Nicola Byrne 1, Ciaran Regan, Gill Livingston

#### Structure

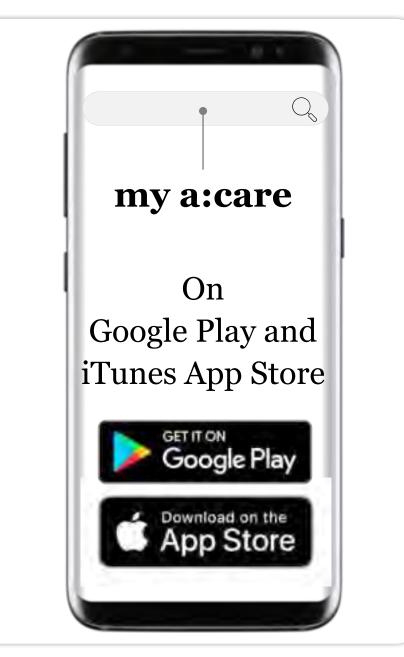


#### my a:care app

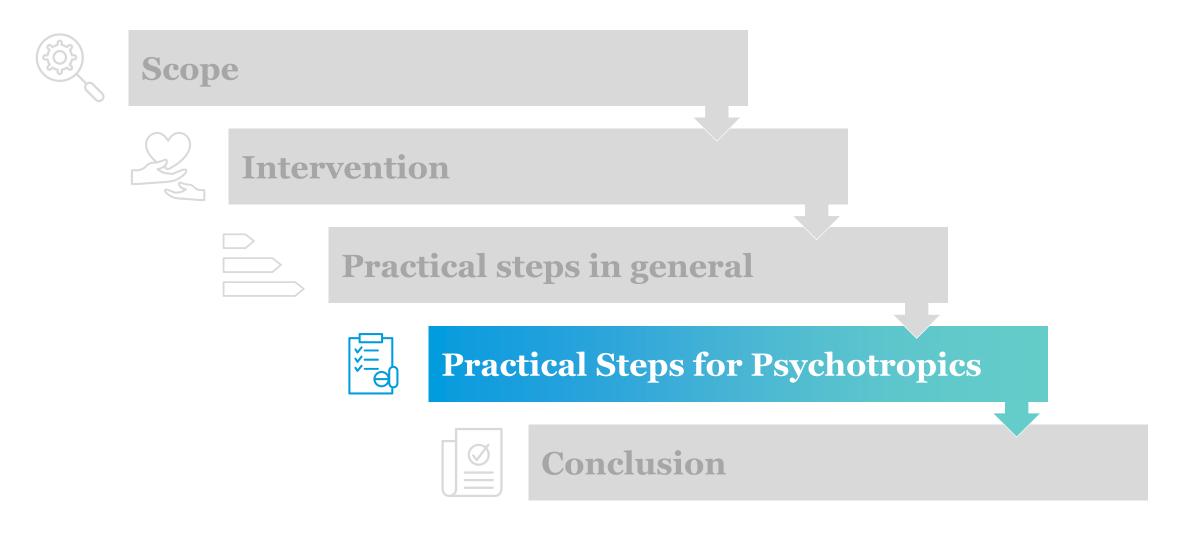


#### my a:care app

#### To download this FREE of charge App, search for



#### Structure





#### Simplifying treatment regimen – **ONCE A DAY DOSAGE** (for medication for **depression** and **psychosis**) that is reached in **few weeks**

Nicole Byrne, Ciaran Regan, Gill Livingston, Adherence to treatment in mood disorders, Curr Opin Psychiatry. 2006 Jan; 19(1):44-9

### Specific Obstacle

## For patients with **anxiety** or **depression** we are facing a unique situation

#### The names of the medications do **NOT** match their use

Very often we prescribe **"antidepressants"** for **anxiety** disorders or **"second generation antipsychotics"** to **depressed** patients who show no evidence of psychosis





#### **Current nomenclature**

#### **ANXIOUS PATIENTS**

Why are you giving me an antidepressant for my anxiety?

It must be **confusing** to find that your anxiety disorder is being treated with an **"antidepressant"** 

## Current nomenclature and **adherence**

#### **DEPRESSED PATIENTS**



Is my condition so bad that you are giving me an antipsychotic?

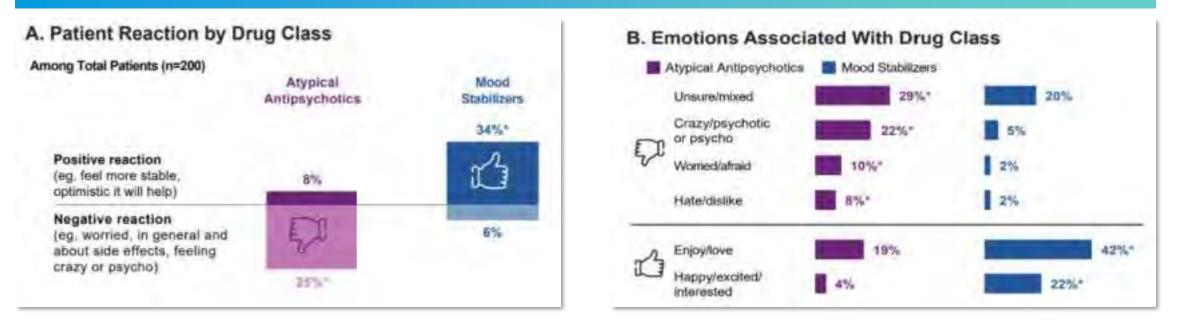
It is **horrifying** to find that your **depression** is being treated with an **"antipsychotic"** 



#### The impact of atypical antipsychotic Nomenclature on patients with Bipolar Disorder: Results of a nationwide patient survey

Tina Matthews-Hayes, Greg Mattingly, Stephen M. Stahl, Mehul Patel

#### PATIENT RESPONSES INDICATED THAT THE ATYPICAL ANTIPSYCHOTIC CLASS NAME WAS ASSOCIATED WITH NEGATIVE EMOTIONS AND CONCERNS RELATED TO PSYCHOSIS, ATYPICAL ILLNESS, AND GREATER ILLNESS SEVERITY

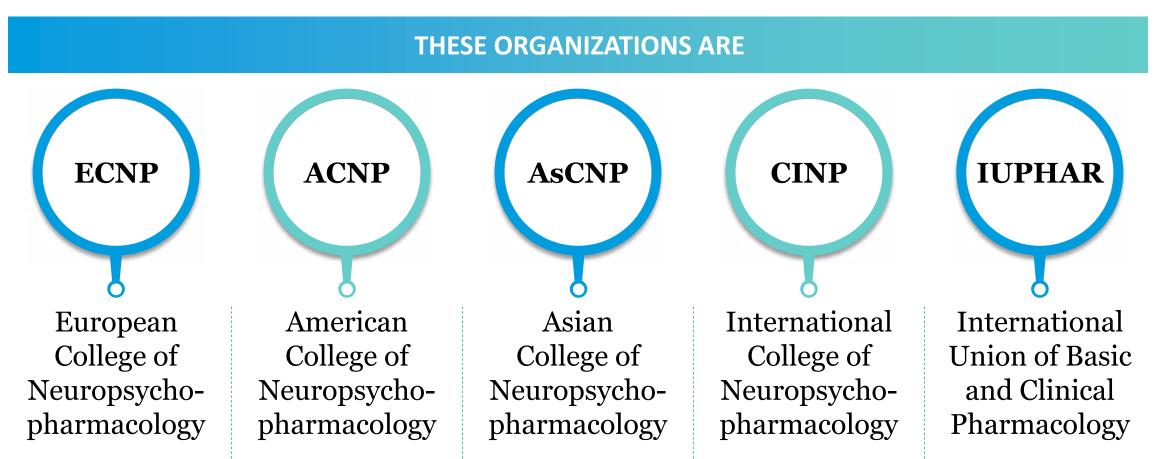


Matthews-Hayes, G. Mattingly, S. Stahl, MD. Patel, K. Kramer, T. Piccolo. The Impact of Atypical Antipsychotic Nomenclature on Patients With Bipolar Disorder: Results of a. Nationwide Patient Survey CPNP 2021 Annual Meeting Poster Abstracts. *Ment Health Clin*. 2021;11(2):75-172. Published 2021 Mar 31.

# The current naming (nomenclature) of psychiatric medications **confusing** for the **patients**



**FIVE** MAJOR INTERNATIONAL NEUROPSYCHOPHARMACOLOGICAL SCIENTIFIC ORGANIZATIONS JOINED FORCES TOGETHER (2008) TO CREATE THIS NOMENCLATURE





## Neuroscience based Nomenclature

#### NEUROSCIENCE BASED NOMENCLATURE

### **NbNomenclature**

Joseph Zohar Stephen Stahl Ham-Jürgen Möller Pierre Siler David Kupfer Shigeto Yamawaki Hiroyuki Uchida Michael Spedding Guy Goodwin David Nutt Sue Wilson

ECNP

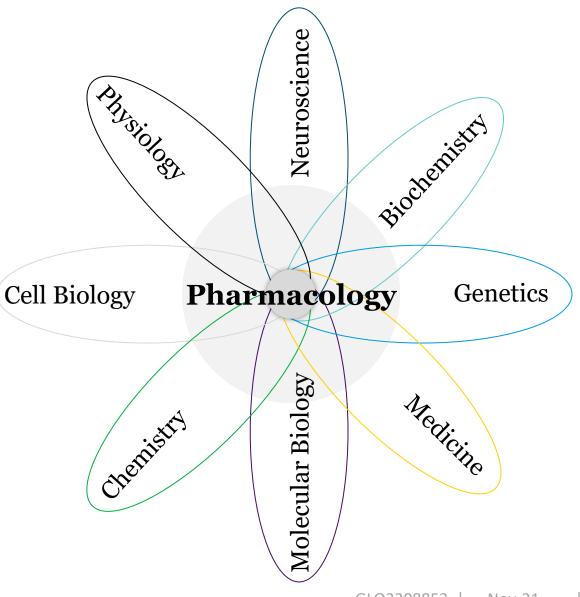


CINP

IL PHAR

# Pharmacologically-driven

(Rather than **indicationbased**) nomenclature that embeds contemporary neuroscience understanding of how medicines work



# Anti**psychotics**

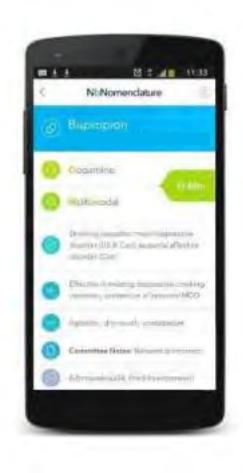
## Antidopaminergics

## Antidepressants

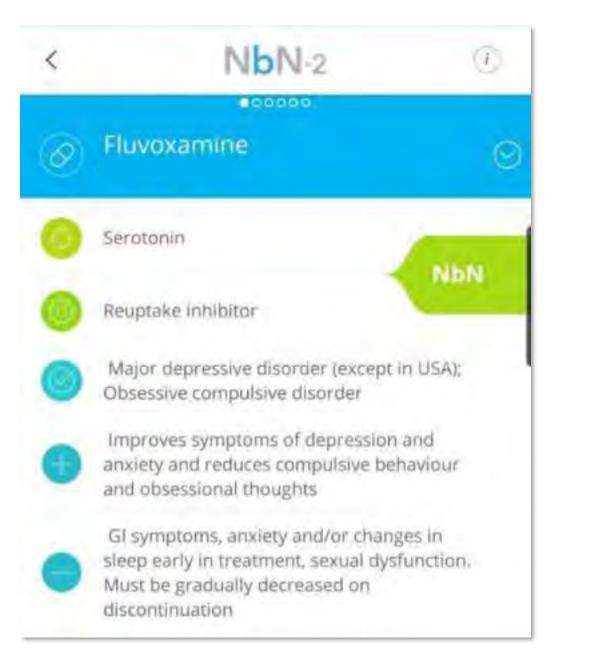
## Promonoaminergics

# To download the App, search for **NbN-2** on Google Play and iTunes App Store









Practical Notes: Potent inhibition of CYP1A2 and increases the half life of caffeine from 5 to 31 hours, increases levels of substrates (acetaminophen/paracetamol, clozapine, planzapine, clomipramine, duloxetine, theophylline). Inhibits CYP2C9 (caution with warfarin). Prolongs effect of melatonin.

Recommended doses: 50 mg at bedtime and increase to 100 mg after 4-7 days. After 2 weeks the dose can be increased by 50 mg/day increments weekly up to a dose of 300 mg/day. Doses higher than 150 mg should be divided in two.

Antidepressant

Neurobiology

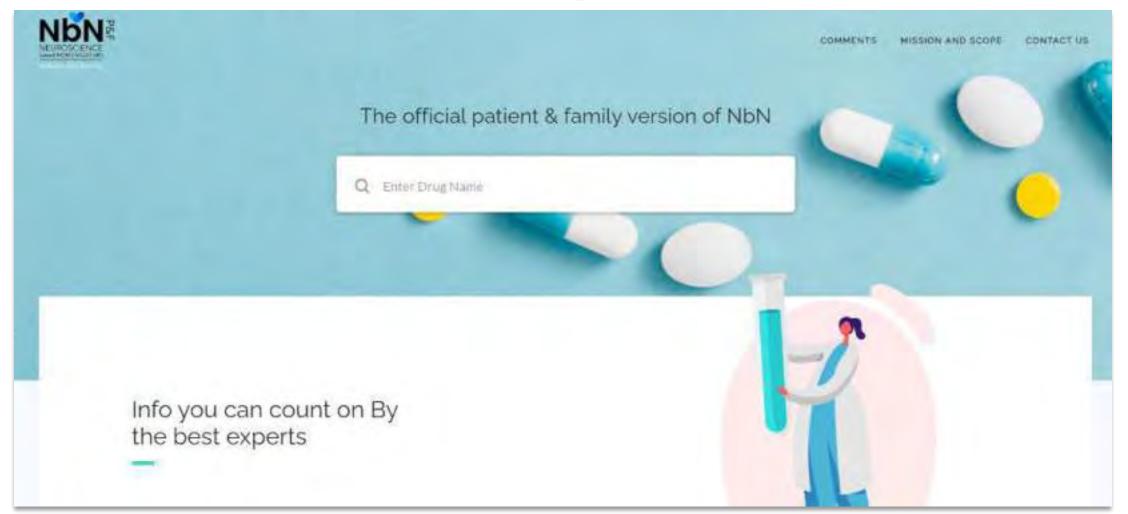
C Risk cannot be ruled out.

The potential risk of taking drugs during pregnancy needs to be weighed against the clinical benefits. This needs to be done per case and to be discussed with the patient. Taking into account the advice of teratogenic experts (if available) is strongly recommended. The NbN for **patients and families** (**NbN p&f**) uses **scientifically-accurate yet easy-to-understand terms** in order to explain how the medication works



# The NbN patient & family Website

### www.nbnpf.com





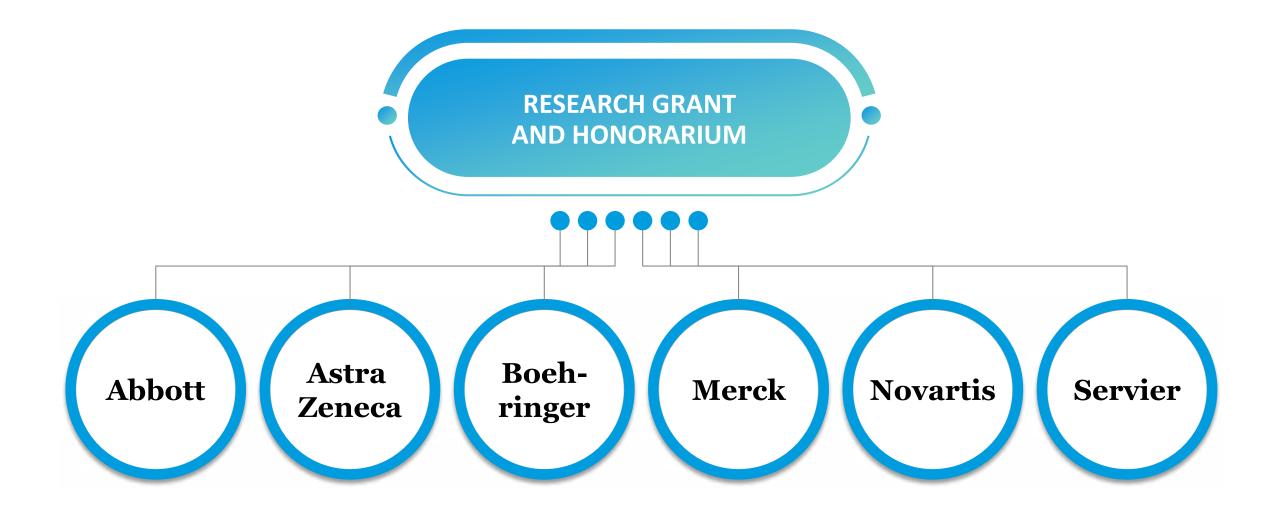


# SHHHH... AVOIDING ACUTE CRISES IN 'SILENT DISORDERS' How to enhance adherence in patient with silent disease?

#### **Prof. Atul Pathak**

Cardiovascular Medicine, Hospital Princesse Grace, Monaco Risk Factors and Heart failure: Molecular and Clinical Investigations, CNRS 5288, Toulouse, France University Pennsylvania, Philadelphia, USA France

## Disclosures

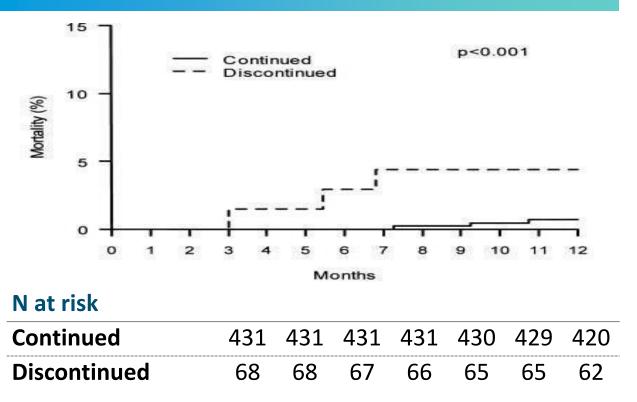


# Prematurely stopping therapy is associated with subsequent mortality

1 in 7 patients with heart attack who receive a stent are no longer taking clopidogrel by 30 days

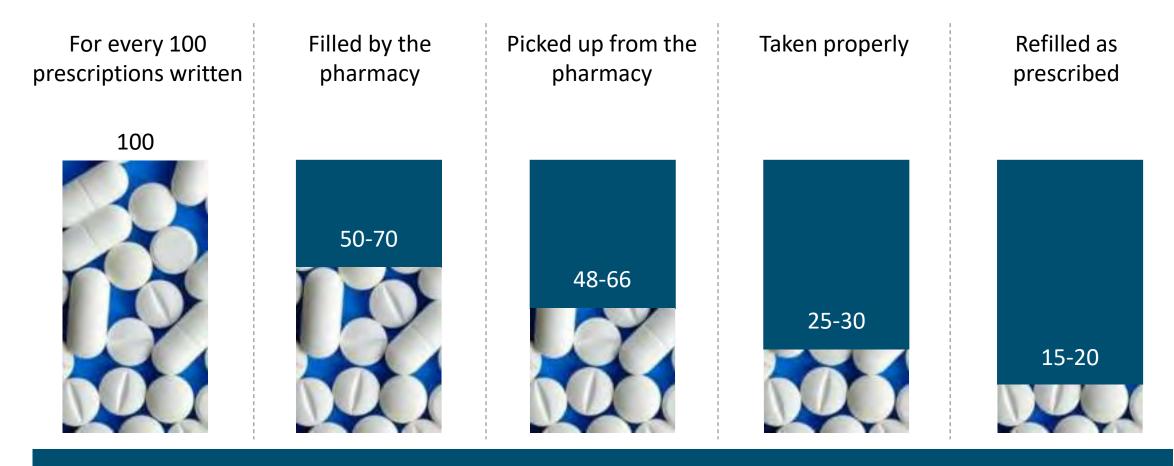
1 in 6 patients who receive a stent do not fill clopidogrel prescription

#### KAPLAN-MEIER MORTALITY CURVES 1 TO 12 MONTHS AFTER MI, BY THIENOPYRIDINE THERAPY AT 1 MONTH AFTER MI



Spertus JA, Kettelkamp R, Vance C, et al. The origin is at the time of the patient's heart attack, but the lines begin at the 1-month assessment point. *Circulation*. 2006 Jun 20;113(24):2803-9. Ho PM, Tsai TT, Maddox TM, et al. Circ Cardiovasc Qual Outcomes. 2010 May;3(3):261-6

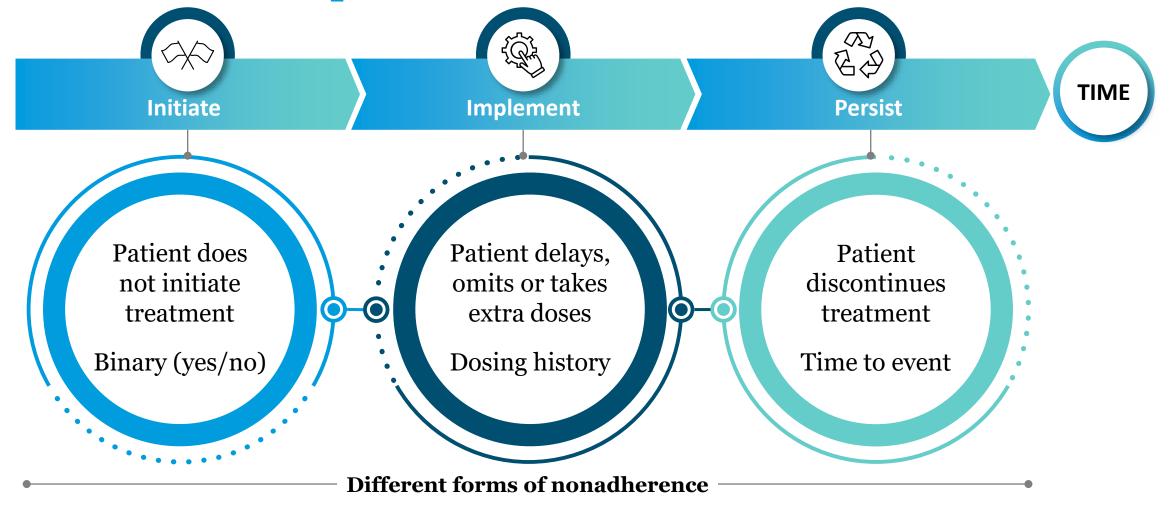
# Extent of nonadherence across the population



#### At any given time ~50% of patients are non-adherent

Christensen A, Osterberg LG, Hansen EH. J Hypertens. National Association of Chain Drug Stores Pharmacies: Improving Health, Reducing Costs. July 2010. *Based on IMS Health data. Image courtesy of Zullig* L. 2009 Aug;27(8):1540–51

# Adherence is the process by which patients take their medications as prescribed



Vrijens B, De Geest S, Hughes DA, et al. Br J Clin Pharmacol. 2012 May;73(5):691-705

# Non-adherence is multifactorial



### **Socioeconomic factors**

Lower social economic status associated with lower adherence



## Health care system factors

Team-based care and post-hospital follow-up improve adherence

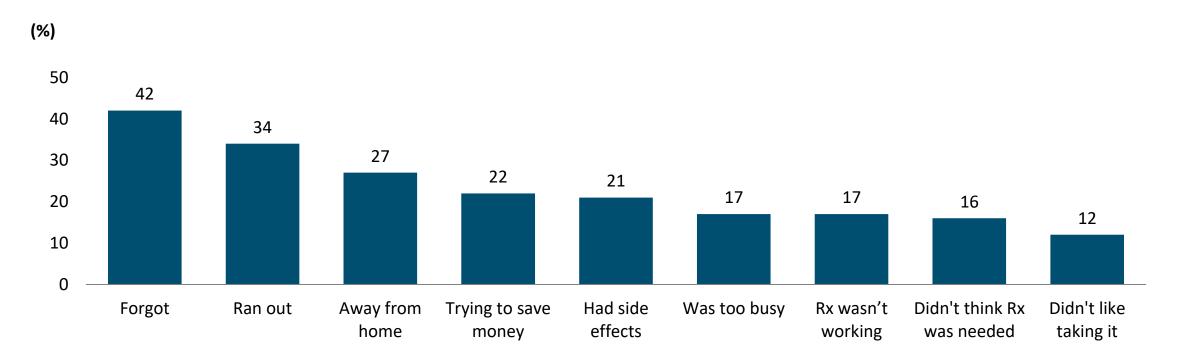


## Medical condition-related disease factors Concomitant conditions and comorbidities can impact adherence

Ferdinand KC, Senatore FF, Clayton-Jeter H, et al. Improving Medication Adherence in Cardiometabolic Disease: Practical and Regulatory Implications. J Am Coll Cardiol. 2017 Jan 31;69(4):437-451

## Intentional and unintentional reasons for non-adherence

#### **SELF-REPORTED REASONS FOR NONADHERENCE**



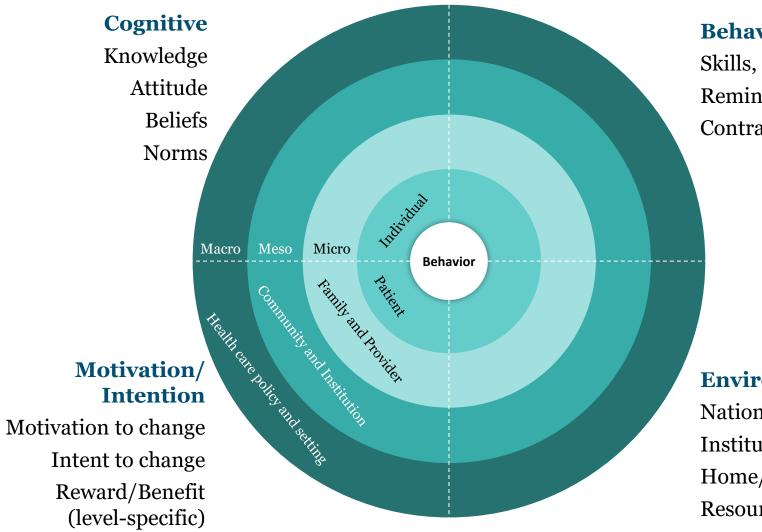
Medication Adherence in America: A National Report 2013. ncpanet.org/pdf/reportcard/AdherenceReportCard\_Abridged.pdf 23. Accessed October 2021.

## Intervention effects will vary based on intervention type

Multilevel interventions are needed

Focus beyond providers

Barriers exist at patient, provider, and systems levels



#### **Behavioral**

Skills, abilities Reminders, cues Contractual obligations

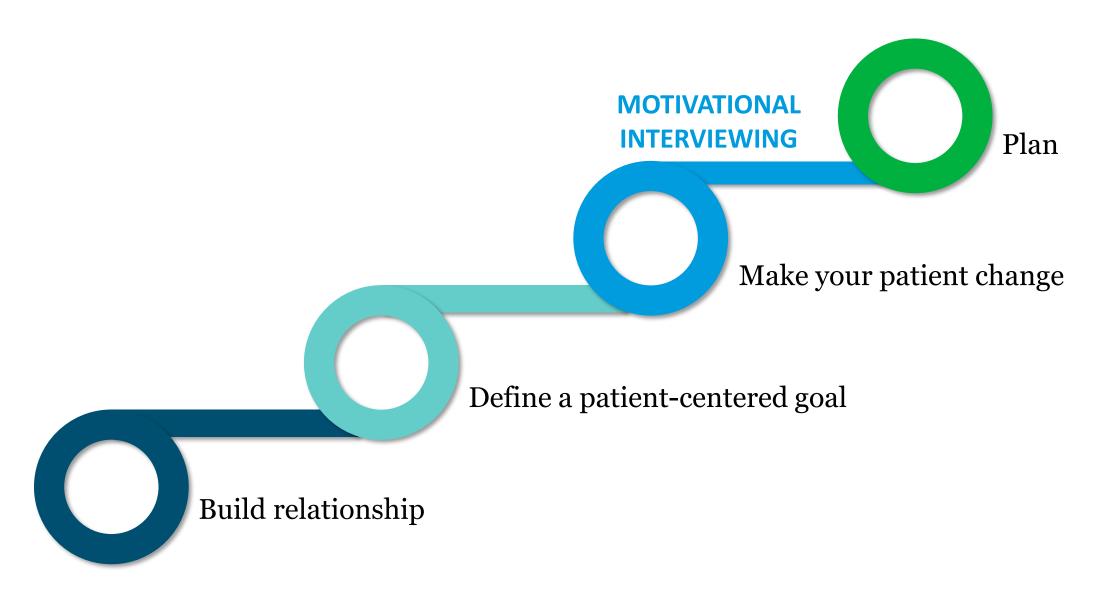
**Environment/Policy** National/state/local policies Institutional policies Home/Work environment Resources

Adapted from: McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. Health Educ Q. 1988;15(4):351377

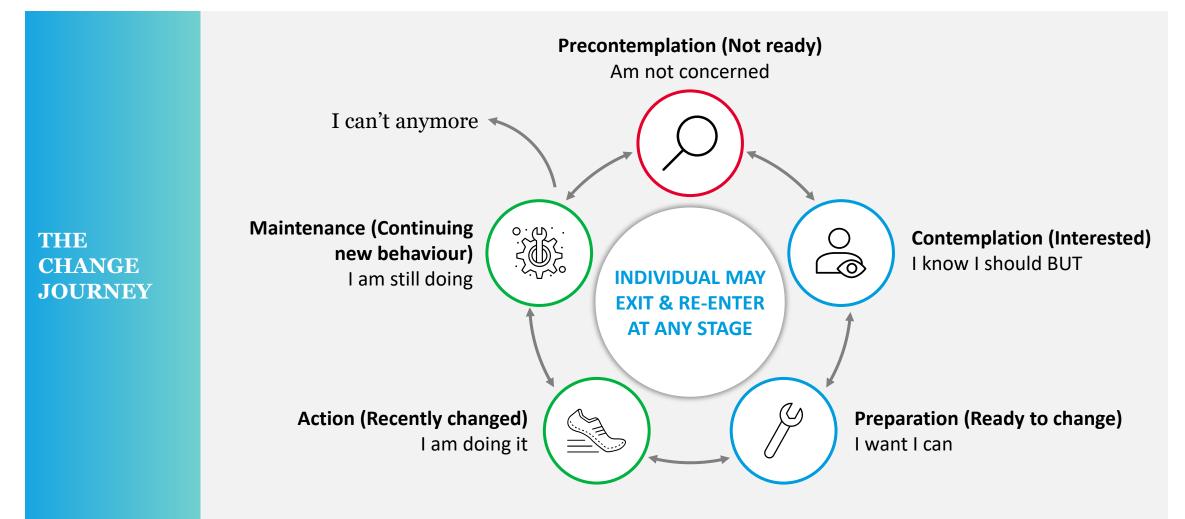
## Difficult to change a health behavior



## Plan to motivate !

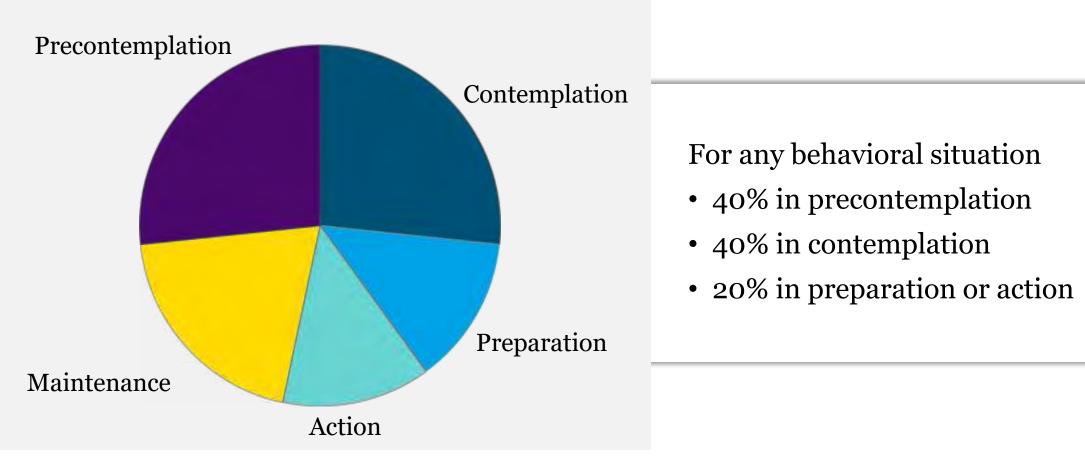


# How to help a patient with a silent risk factor to change?



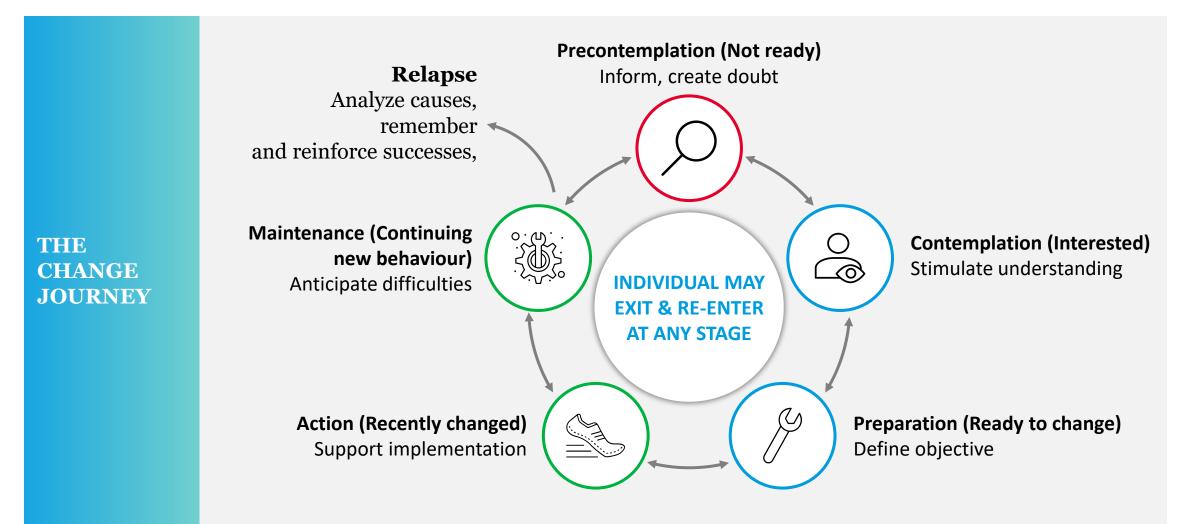
Prochaska and Di Clémente, Stages of Change: prescriptive guidelines for behavioral medicine and psychotherapy, 1998;19(3):276-288.

# Prochaska and Di Clemente's Stages of Change Model



Prochaska and Di Clémente, Stages of Change: prescriptive guidelines for behavioral medicine and psychotherapy, 1998;19(3):276-288.

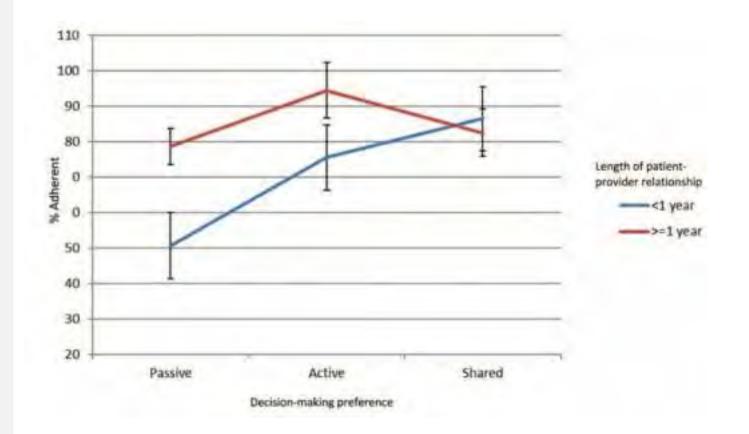
## How to help a patient to change ?



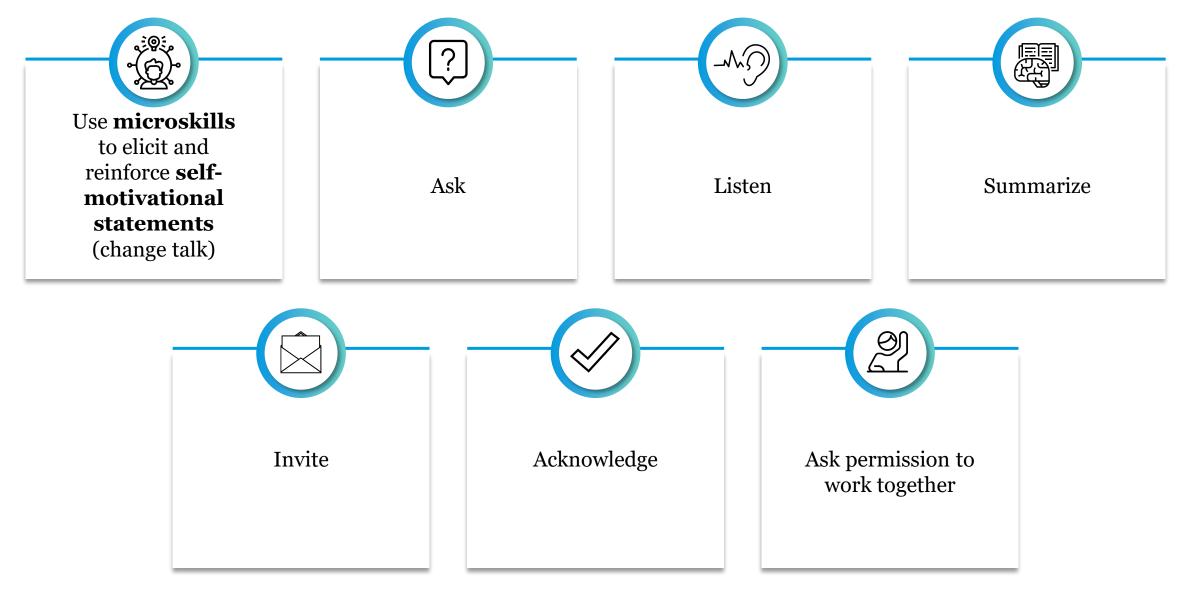
Prochaska and Di Clémente, Stages of Change: prescriptive guidelines for behavioral medicine and psychotherapy, 1998;19(3):276-288.

# Medication adherence and decision-making preference

- Decision making preference has an in impact on medication adherence
  - Length of patient provider relationship impact decision making preference
  - Patient preference influenced by
  - Trust in physician,
  - satisfaction with care
  - confidence in decision



## Motivational communication



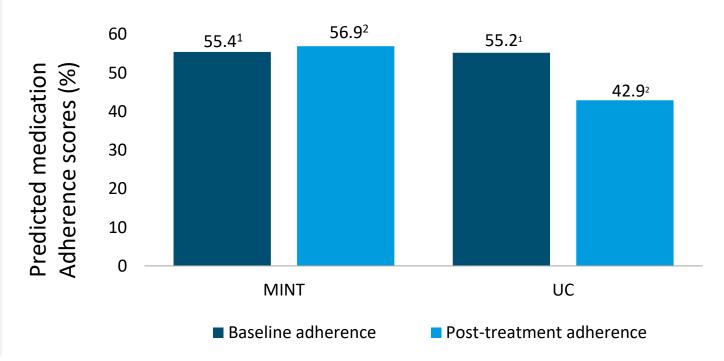
## Evidences



Systematic reviews and meta-analyses show beneficial effect of motivational strategies in various contexts such as with diet, exercise and adherence to medications.

Some reviews have even shown statistically significant change in direct measures such as blood pressure, cholesterol, and body mass index

#### MOTIVATIONAL INTERVIEWING (MINT) COUNSELLING RESULTED IN STEADY MAINTENANCE OF MEDICATION ADHERENCE OVER TIME COMPARED WITH USUAL CARE (UC)



Rubal, Sandbaek, et al. Motivational Interviewing: A Systematic Review and Meta-Analysis. British Journal of General Practice 2005; 55: 305-312.Ogedegbe et al. Am J Hypertens 2008;21:1137–43

1. P=0.94; 2. P=0.027 for comparison with usual care group

# **Conclusions: Approaches improving patient's** behavior



Î

Patient-centred therapeutic approach

### Improves readiness for change

- Relevant to patients who needs to be identified
- Change the way you communicate
- Change the way you behave



Improves outcomes when added

In hypertensive patients, practice-based motivational interviewing counselling was associated with a greater inclination to comply compared with usual care

Ma et al. Patient Educ Couns 2014;95:231–7 Hettema et al. Annu Rev *Clin Psychol* 2005;1:91–111