

# **Mental Health Care during Periodic Health Exams**

**How Do They Occur and How Long  
Do They Last**

# Research Team

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# Acknowledgement

NIMH R01 MH081098

NCI R01 CA112379

# Introduction

- The majority of patients with mental health (MH) concerns turn to their primary care physicians (PCPs) for guidance and help.
  - Unutzer et al 2006
  - Wang, et al 2006
- Annual physicals are intended to provide comprehensive preventive care, diagnostic, and treatment services.

# Research Questions

Might annual physicals offer patients an opportunity to receive mental health services?

- How often? For how much time?
- How did physician communication styles and patient activation relate to length of MH discussion?
- How did the level of mental health needs affect the length of MH discussions?
- If MH discussion occurred, what did it look like ?

# Preventive Health Discussion

## - PHD Study

- Patients were drawn from a sample of 500 patients who participated in a study on physician-patient communication
- An integrated delivery system in Detroit
- February 2007 to June 2009
- Inclusion criteria:
  - 50 to 80 years of age
  - enrolled in a health plan
  - scheduled a routine annual preventative checkup with a participating PCP, and
  - due for a CRC screening at the time of the checkup (Shires et al 2012)

# Data (PHD Study, Continued)

- A brief telephone survey at the time of recruitment into the study
  - PHQ2 screening,
  - socio-demographic characteristics.
- The physical was observed and audio-recorded by a research assistant.

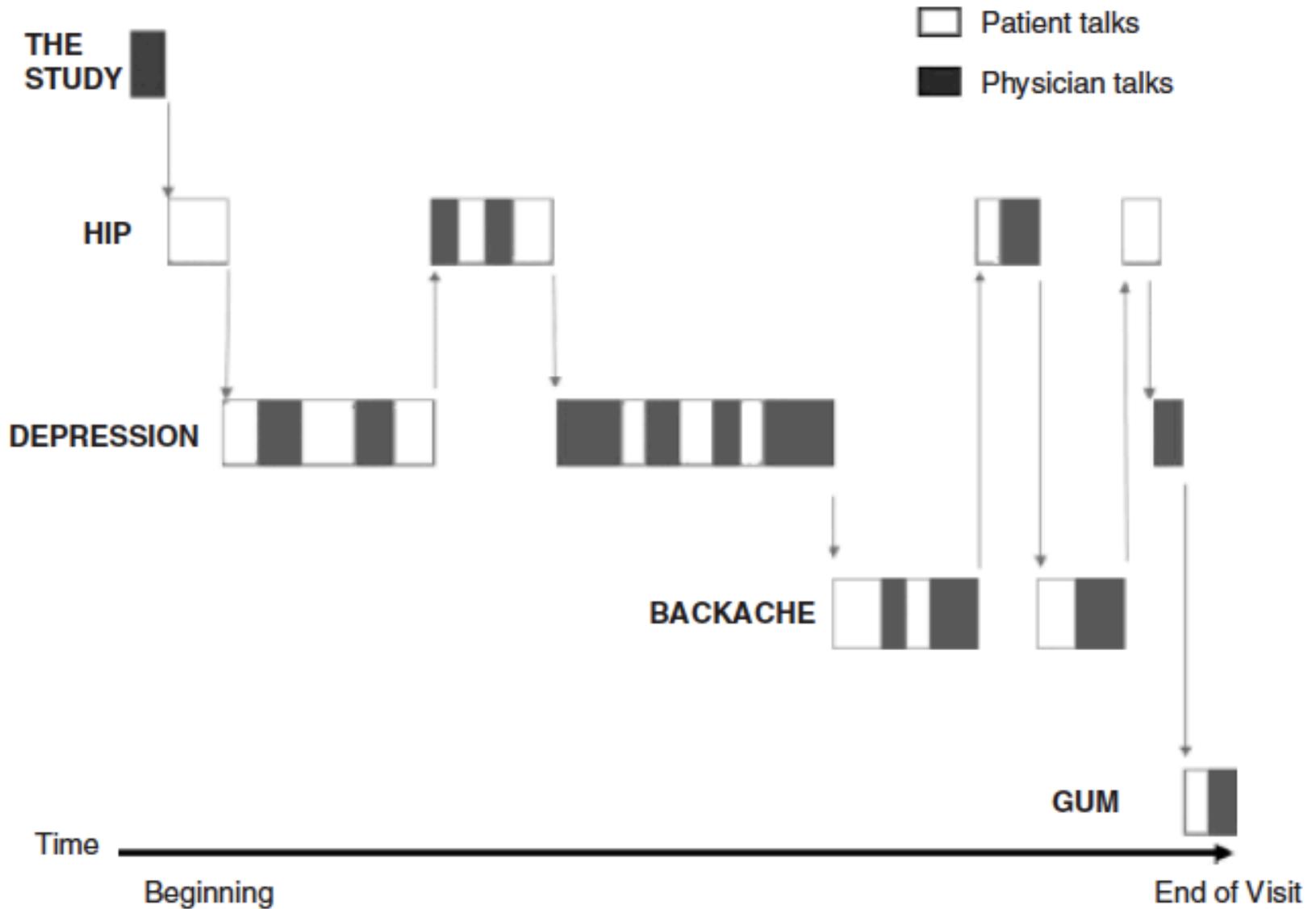
# Data for Mental Health Discussion (MHD) Study

- Subsample of 261 patients
- Patient inclusion criteria:
  - scored  $\geq 2$  on the PHQ2
  - filled or were prescribed a psychotropic medication in the 12 months before the observed visit, or
  - had a mental health Dx the EMR, or
  - visited a BH center in the 12 mos before the visit
- EMR 12 mos before and 12 mos after the observed visit
- Characteristics of participating PCPs

# Methods

- Mixed Methods
  - Qualitative
    - Coding of audio recording and transcripts
      - Nature of discussion: Topics
  - Quantitative
    - Coding of the time spent on each topic, defined as the amount of time between the start and end of all instances of the topic.(Tai-Seale, McGuire, and Zhang 2007)
    - Descriptive
    - Zero-Inflated Negative Binomial Model
  - Triangulation

Figure 1: Flow of Conversation during a Visit



Tai-Seale, McGuire, and Zhang, HSR, 2007

# MHD Study Patients

	All patients	W/o MH	With MH
Sample	261	62.8%	37.2%
Mean pt age (SD)	59.5 (8.2)	60.0*	58.6
Pt Male	37.2%	74.2%**	25.8%
Pt non-white	34.9%	73.6%*	26.4%
Pt not high sch/GED or higher	4.6%	91.7%**	8.3%
An anxiety attack in past 4 wks	8.8%	39.1%	60.9%***
Mean PHQ2 (SD)	1.1 (1.5)	0.9	1.5***
Mean Charlson score (SD)	0.8 (1.4)	0.8	0.9
Mean MD verbal dominance (SD)	3.2 (2.2)	3.5***	2.7

\* p<0.10, \*\* p<0.05, \*\*\*p<0.01

# MHD Study Patients – con't

	All patients	W/o MH	With MH
Pt activation	10.3%	51.9%	48.2%
Pt Ongoing MH Episode of Care	36.8%	55.2%	44.8%*
Mean N of evidence-based services Delivered (SD)	2.9 (1.5)	2.8	3.2*
Mean N of pt visits on the day (SD)	14.6 (4.7)	13.9	15.7***

\* p<0.10, \*\* p<0.05, \*\*\*p<0.01

# Topics Distribution & Time on Topic

Topic Domains	N (%)	Time Spent on Topic				
		Mean	Median	S.D.	Min	Max
Biomedical	2,995 (62%)	67.1	43	80.4	5	856
Health behavior	525 (11%)	56.0	30	67.5	5	543
Mental health	102 (2%)	146.3	63	211.7	2	1401
Psychosocial	561 (12%)	44.6	28	51.9	5	464
Pt-MD rltnship	67 (1%)	50.3	26	52.6	6	293
Visit flow mgmt	448 (9%)	52.9	23	99.2	5	814
Other	104 (2%)	54.5	32	62.4	5	480
Total	4,802					

# Research Questions

- For how much time?
- Relationships with
  - physician communication styles
  - patient activation
  - level of mental health needs ?
- If MH discussion occurred, what did it look like ?

# Empirical Model

Zero-inflated negative binomial model  
where ... =

- MD verbal dominance in other visits
- Patient activation (brought a list)
- MH needs (PHQ2 score, anxiety attack)
- Episode of MH care (ongoing vs. not)
- N of evidence-based services delivered in visit
- N of patient scheduled on the day of the visit
- Covariates (age, gender, edu, race, Charlson)

# Results from Zero-Inflated Negative Binominal Model: Main covariates

	Prob (No MHD)		Count (Time on MHD)	
MD Verbal Dominance	0.151	**	-0.084	
Pt activation	-0.695		-0.078	
PHQ2	-0.284	***	0.215	***
Had an anxiety attack in last 4 weeks	-0.805		1.014	**
N	242			

\* p<0.10, \*\* p<0.05, \*\*\*p<0.01

# Results: Remaining Covariates

	Prob (No MHD)		Count (Time on MHD)	
Pt Ongoing Episode of Care for MH	-0.549	*	0.534	***
N of evidence-based services delivered	-0.143		-0.030	
N of pt visits on the day	-0.090	***	-0.069	**
Charlson score	-0.171		-0.025	
Pt Age	0.036	*	-0.034	**
Pt Male	0.837	***	-0.754	***
Pt non-white	1.060	***	-0.793	***
Pt not HS grad or higher	2.087	*	-1.130	***
N	242			

\* p<0.10, \*\* p<0.05, \*\*\*p<0.01

What's behind the numbers?

**STATISTICS ARE PEOPLE WITH THEIR  
TEARS WIPED AWAY**

# Research Questions

- For how much time?
- Relationships with
  - physician communication styles
  - patient activation
  - level of mental health needs ?
- If MH discussion occurred, what did it look like ?



# Emergent Qualitative Insight

- Mental health concerns may be the true reason for some patients to schedule an annual “physical”
  - 1<sup>st</sup> topic
  - Asking for antidepressants at the get go
  - Crying at the beginning of the visit
  - “And I knew as soon as I saw you I would start to cry.”

# Verbal Dominance - High

- With MHD
  - PHQ2=4
  - In a litany - “...and the ADHD”
  - Dictates in front of patient
- Without MHD
  - PHQ2=3
  - “I think we covered everything. Is there anything you wanted to talk about?”
  - I did a lot of talking.”**

# Verbal Dominance - Median

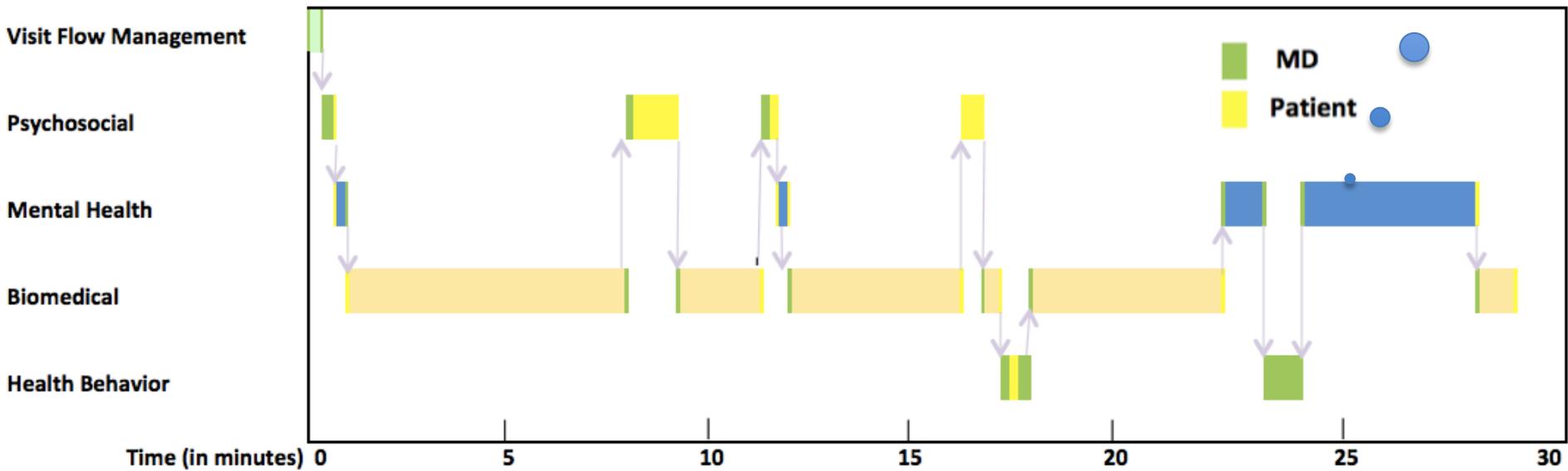
- With MHD
  - PHQ2=6,
  - Pt cries because her son is dead
  - MD shows repeated empathy, and investigates her current mental health. Already had an anxiety diagnosis, and encouraged her to seek more counseling.
- Without MHD:
  - PHQ2=3
  - pt very assertive/active
  - MD asks pt has any concerns, middle of visit

# Verbal Dominance - Low

- No MHD:
  - PHQ2=3
  - MD missed many opportunities to explore
  - Pt repeatedly: “going through a hard time”
- With MHD:
  - PHQ2=6
  - explored empathic opportunities
  - asked several PHQ9 questions
  - Diagnosed depression and prescribed Effexor

# Short Shifts

- The shortest mental health discussions: 0.6 minutes
  - Patient's PHQ2=6
  - was under the care of behavioral health specialists.
  - PCP: “Are you still seeing Dr. xyz (name of the psychiatrist)?”
  - No formal assessment of MH.



Topic length: Mental health – 7:17

Biomedical - 20:48

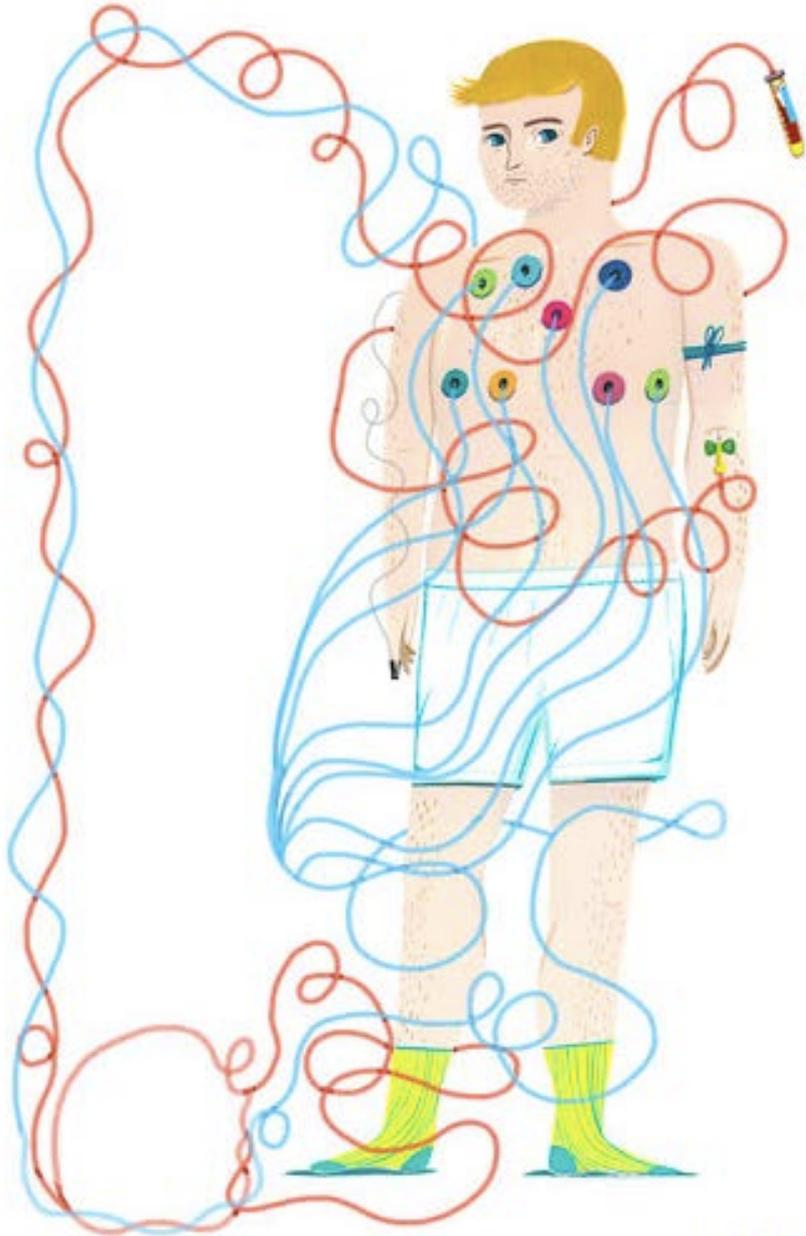
# Misplaced Priorities

When we're spending time doing things that don't potentially benefit people and skipping things that may be of benefit, that's a sign not only of waste but of misplaced priorities.

Russell Harris, MD  
University of North Carolina

# Discussion

- Annual Physical - A Time Honored Tradition
- Some patients' potentially urgent mental health needs are unmet
- Verbal dominance negatively associated with mental health care in PHE
- Disparities due to age, gender, education, and race



# Let's (Not) Get Physicals

By [ELISABETH ROSENTHAL](#)

Published: June 2, 2012

272 Comments



## Got Mental?

# Research Team



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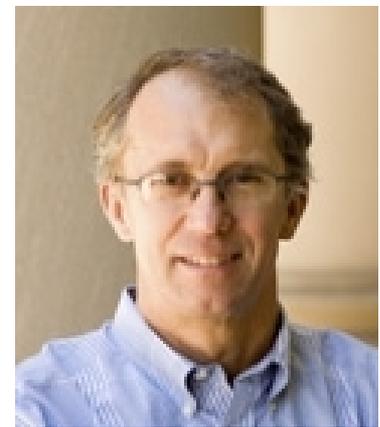
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# **Thank You!**

Work-in-Progress

Question & Comments Are Appreciated

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# The Patient Health Questionnaire-2 (PHQ-2)

Patient Name \_\_\_\_\_ Date of Visit \_\_\_\_\_

**Over the past 2 weeks, how often have you been bothered by any of the following problems?**

	<b>Not At all</b>	<b>Several Days</b>	<b>More Than Half the Days</b>	<b>Nearly Every Day</b>
1. Little interest or pleasure in doing things	0	1	2	3
.....				
2. Feeling down, depressed or hopeless	0	1	2	3

A PHQ-2 score ranges from 0-6. The authors<sup>1</sup> identified a PHQ-2 cutoff score of 3 as the optimal cut point for screening purposes and stated that a cut point of 2 would enhance sensitivity, whereas a cut point of 4 would improve specificity.

Kroenke et al. 2003, Medical Care

# High PHQ2 Short MHD

VisitID	Visit Length	Time MH Start	Part of Litany	PHQ2	MH topic length	Physical exam length
78006	36	14:36	Yes	4	6 s	407 s
97211	30	8:33	No	6	34 s	619 s
25767	31	3:07	No	6	74 s	511 s
40336	28	9:22	Yes	3	19 s	739 s
59755	15	11:28	No	4	24 s	186 s
77854	24	1:57	No	4	120 s	438 s
36367	35	11:45	No	3	88 s	756 s
63267	26	0:18	No	4	58 s	330 s

# Views from A Psychiatrist

- She would love all her primary care colleagues to inquire more deeply about the mental well-being of their patients with more than just, “are you still seeing your psychiatrist?”
- Because:
  - The majority of those who commit suicide saw a PCP within 6 months of their death.
  - When she gets phone calls from PCPs who do screen more extensively, they are better able to collaborate on the care of the patients they co-manage,
    - including instruction about medication titration and
    - support from the PCP for the patient to be more engaged with their mental health treatment.
- She wasn’t necessarily surprised by the finding on co-location
  - “Our building has Behavioral Health, people know where to go.”
- Do they go?

# “It’s not like you’re going through depression”

Patient 8: = but I wake up . . . maybe three hours into it and then I’m up for two hours and I go back to sleep. And a lot of it is when things are on your mind =

Doctor D: Yep. Yep. Mm-hmm ....

Patient 8: = it, yeah. And it’s, it’s depressing . . . .

Doctor D: Because at this time, it’s not like you’re going through depression.

Patient 8: Yeah.

Doctor D: Okay? Medical depression is where it interferes with your day to day stuff, you’re withdrawn, you don’t socialize, you’re snappy and stuff like that. You don’t have all that. It’s mainly because of the stress and just adjustment ... And uh, maybe, I can give you a few sleeping pills to take for the time being that would help.

Patient 8: [cries] . . . she doesn’t start her first treatment until Monday. And I think if I notice a big difference, down difference with her, then I don’t know, it won’t be so easy to handle . . . So maybe I’ll call

- Post-visit EMR data showed that patient received prescriptions for an antidepressant, a few months later.