

Predictors of PTSD in Primary Care

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Rosa

CC: back pain

43 y.o. female

PMH: asthma, chronic back pain,
Htn, migraine

Meds: Ibuprofen, Acetaminophen
+Oxycodone, Fioricet, HCTZ,
inhalers

Multiple ED visits/admissions for
asthma

Back pain refractory to PT, NSAIDS



Rosa: Social History

- Childhood physical mistreatment by father
- Sexual assault/rape at age 16
- Marriage to abusive husband at age 18
- 4 children: son incarcerated for life (murder), son murdered at age 17, son disappeared (substance abuse), daughter with substance abuse and ovarian cancer
- Polysubstance abuse began in early 20s, denies current substance abuse
- Remarried; works as nurse's aide in nursing home

Trauma and Worse Medical Outcomes

Domestic Violence, Physical and Sexual Abuse

- Chronic pain/symptoms - **GOOD EVIDENCE**
- General Health Status - **GOOD EVIDENCE**
- Increased Utilization - **GOOD EVIDENCE**
- Specific Medical Diagnoses - **MIXED EVIDENCE**

Trauma and Symptoms

Low Severity Violence:

1931 women aged >18 in community-based Primary Care practices

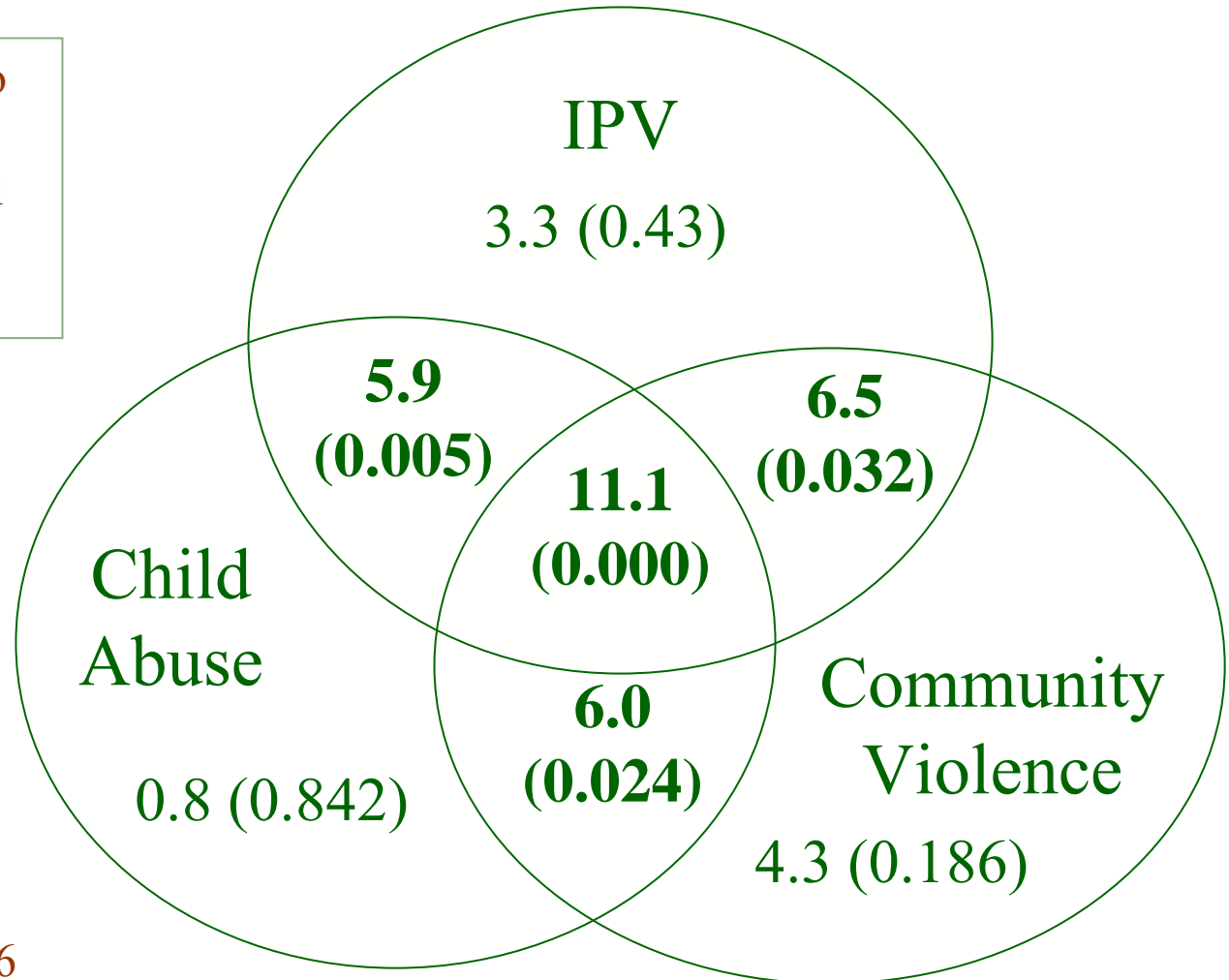
Variable	No Violence n=1257	Current Low Severity n=47	Current High Severity n=79
Physical Symptom Count	4.3 (0.6)	5.3 (0.8)	6.4 (0.7)
SCL-22 Psych Symptoms	32.6 (1.8)	35.7 (2.2)	39.5 (2.0)

McCauley JGIM 1998

Trauma and Symptoms

174 females from academic medical practice, age 25-60

Adjusted Odds Ratio
(p value) of ≥ 6
symptoms compared
to women without
violence exposure



Trauma & General Health Status

National Violence Against Women Survey: Random-digit-dial telephone survey

	Women (n=6790)			Men (n=7122)		
Out-come	Phys	Psych: Power	Psych: Verbal	Phys.	Psych: Power	Psych: Verbal
Poor Health Status	2.0	2.1	1.5	1.9	2.2	1.0
Chronic Disease	1.6	1.1	1.1	1.5	0.8	0.8

Adverse Childhood Experiences

Substance Abuse
Mental Illness
Domestic Violence
Physical Abuse
Sexual Abuse
Prison



Trauma and Chronic Disease

Adverse Childhood Experiences Study

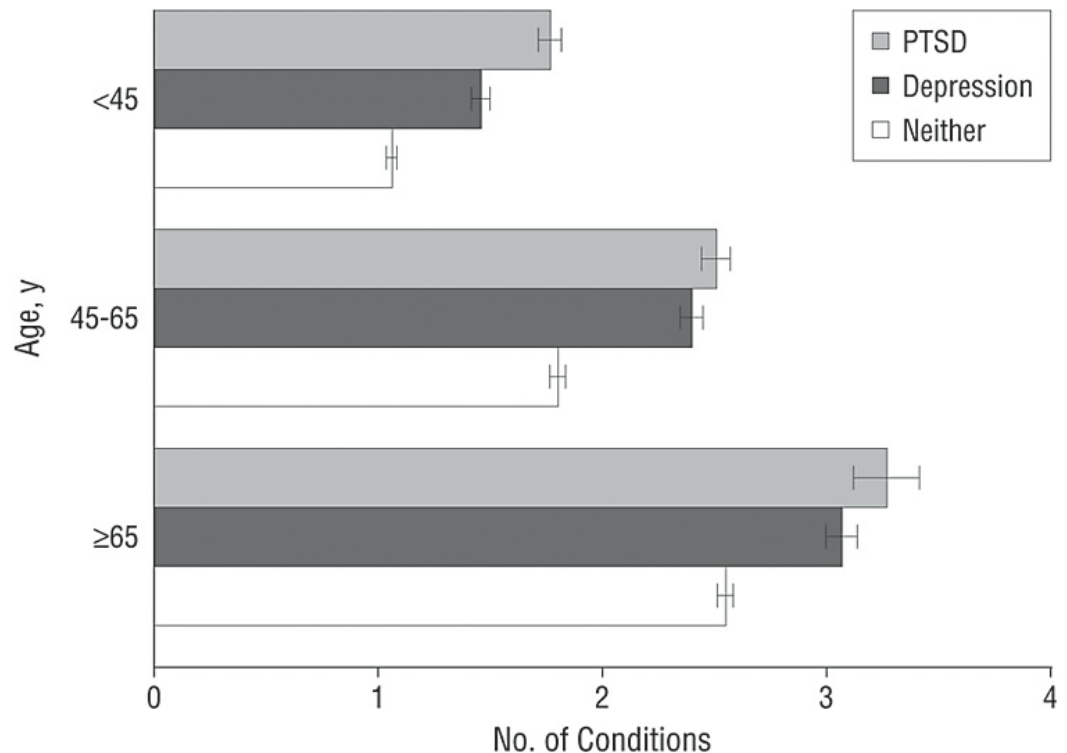
9508 Adult HMO patients

Outcome	Number of ACEs				
	0	1	2	3	≥4
Ischemic Heart Disease	1	0.9	0.9	1.4	2.2
Cancer	1	1.2	1.2	1.0	1.9
Stroke	1	0.9	0.7	1.3	2.4
Diabetes	1	1.0	0.9	1.2	1.6
Bronchitis/Emphysema	1	1.6	1.6	2.2	3.9
Poor self-rated health	1	1.2	1.4	1.4	2.2

Felitti Am J Prev Med 1998

PTSD, Depression and Health-Related Quality of Life

30,865 Female veterans
Self-reported:
PTSD,
Depression,
Medical Diseases

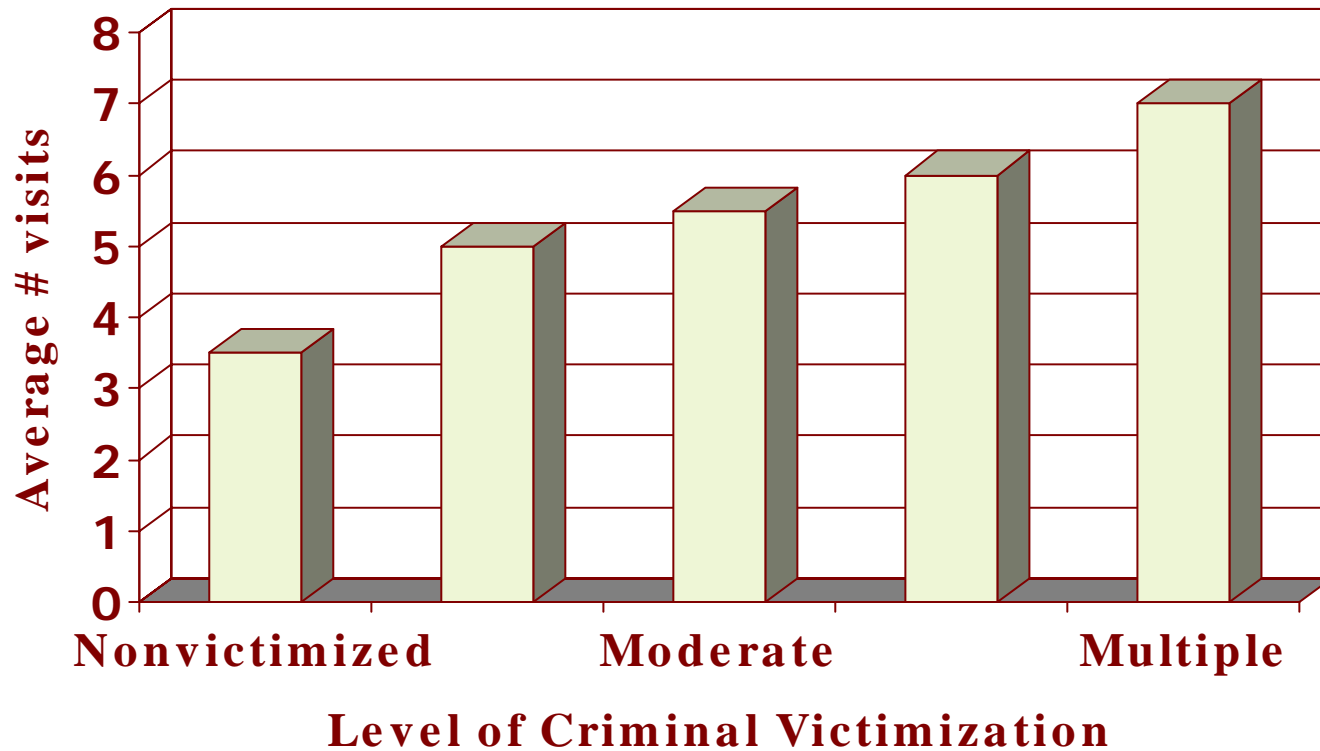


Trauma and Medical Outcomes

HIV infected males and females followed over 3 years

	Current Abuse
Ambulatory Visits	1.45 (1.08, 1.95)
ED Visits	1.65 (1.18, 2.30)
Hospitalizations	1.65 (1.03, 2.45)
ASI Alcohol	0.08 (0.03, 0.14)
ASI Drug	0.02 (-0.01, 0.04)

Outpatient Visits by Severity of Victimization



Trauma, PTSD and Primary Care

- San Diego Primary Care: 2% past month PTSD

PTSD Checklist, Civilian Version

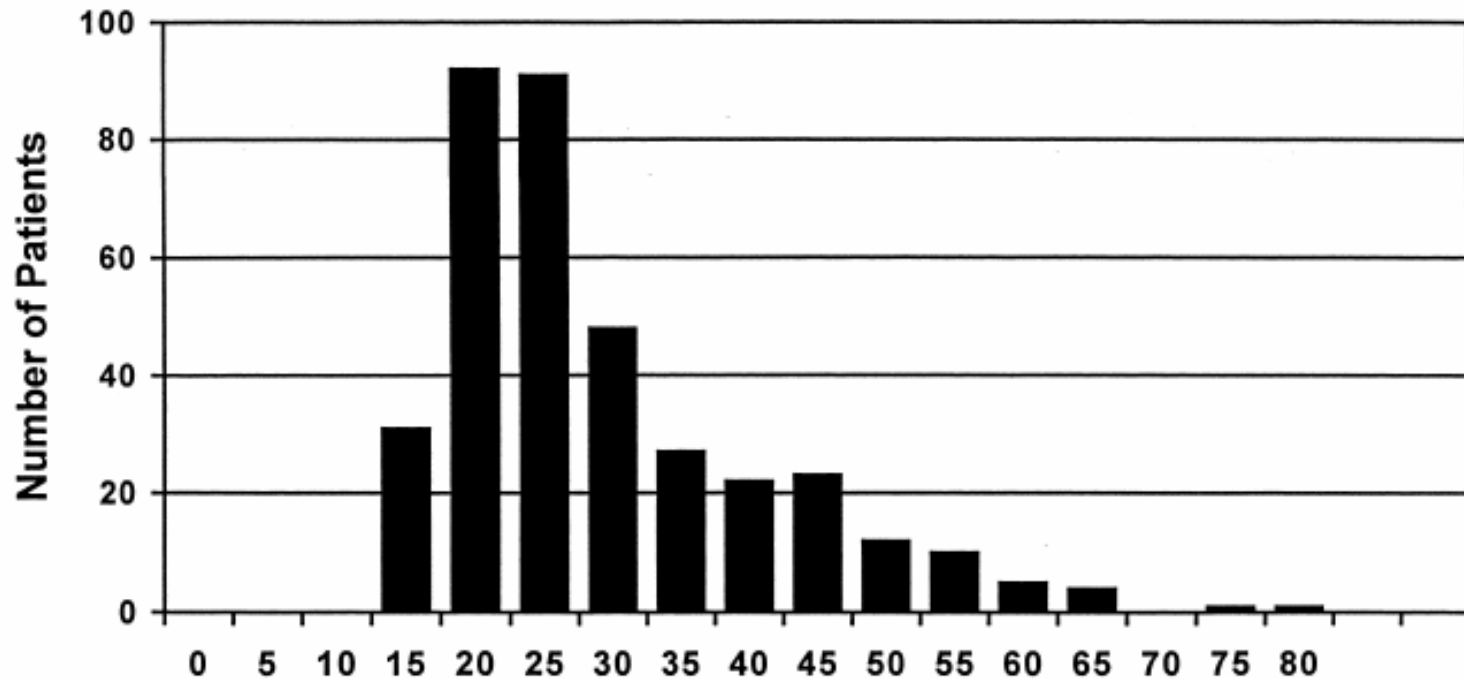


Figure 2. PCL-C scores in primary care patients (N=367).

Stein et al 2002 Gen Hosp Psych

Trauma, PTSD and Primary Care

- Black patients in Washington DC: 33% LT PTSD
- At least one trauma: 65%

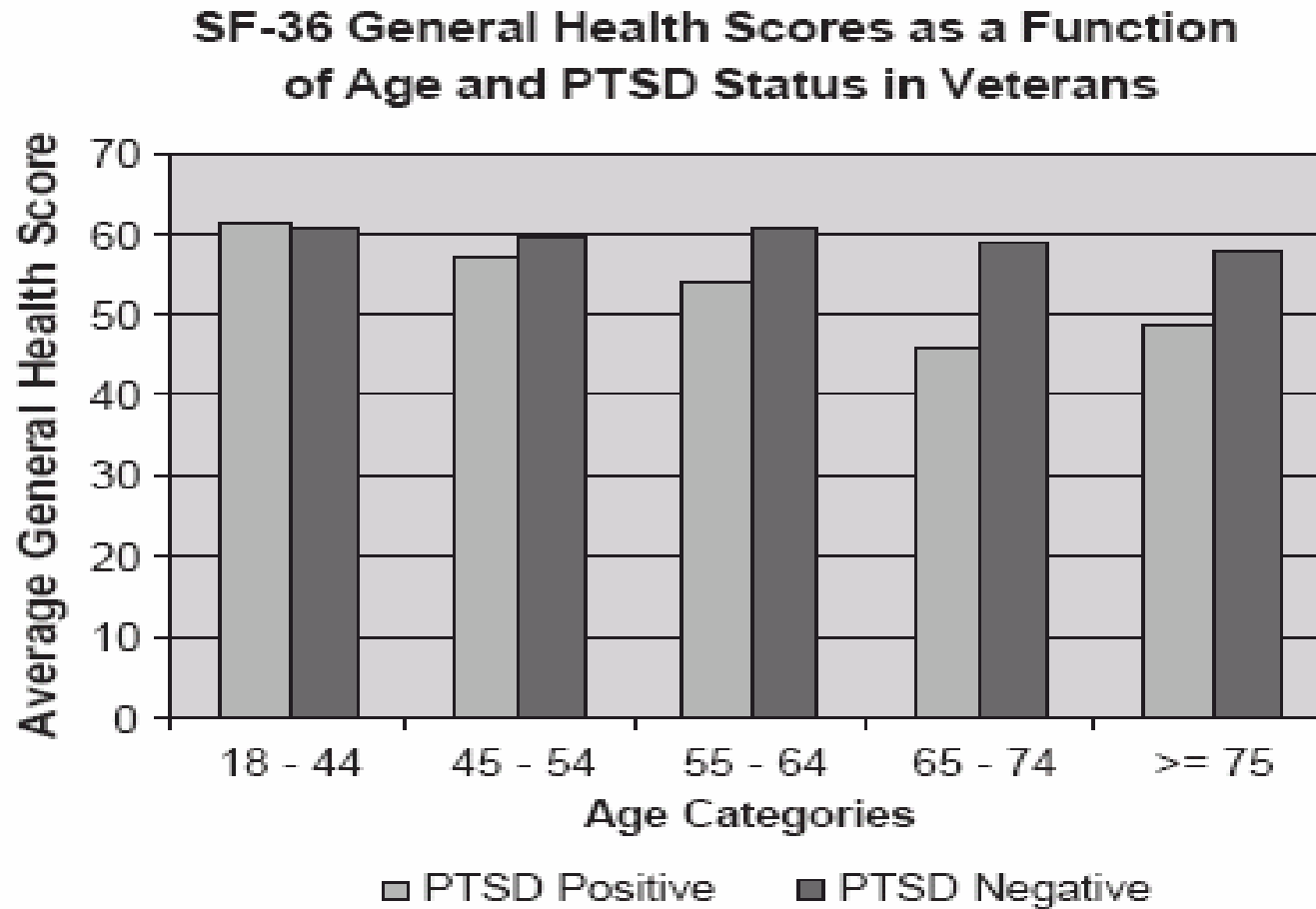
Table 2. Lifetime prevalence of specific traumatic events

Type of Trauma	Males (N=195)		Females (N=422)		Total (N=617)	
	N	%	N	%	N	%
Natural disaster	28	15	69	16	97	16
Transportation accident	89	46	171	40	260	42
Serious accident	31	16	52	12	83	14
Physical assault	69*	36	118*	28	187	30
Assault with a weapon	74**	38	80**	19	154	25
Sexual assault	17***	9	130**	31	147	24
Unwanted sexual experience	21***	11	101**	24	122	20
Combat exposure	19	10	9*	2	28	5
Life-threatening illness, serious injury	52	27	89	21	141	23
Sudden unexpected death	73	38	166	39	239	39

* M>F, p <0.05; ** M>F, p <0.001; *** F>M, p<0.001

Trauma, PTSD and Primary Care

- 746 veterans: 11% Current PTSD



PRISM Study

PRISM: PTSD Research on Identification and Screening in Medical Settings

To determine prevalence, predictors and associations of PTSD in an urban primary care practice

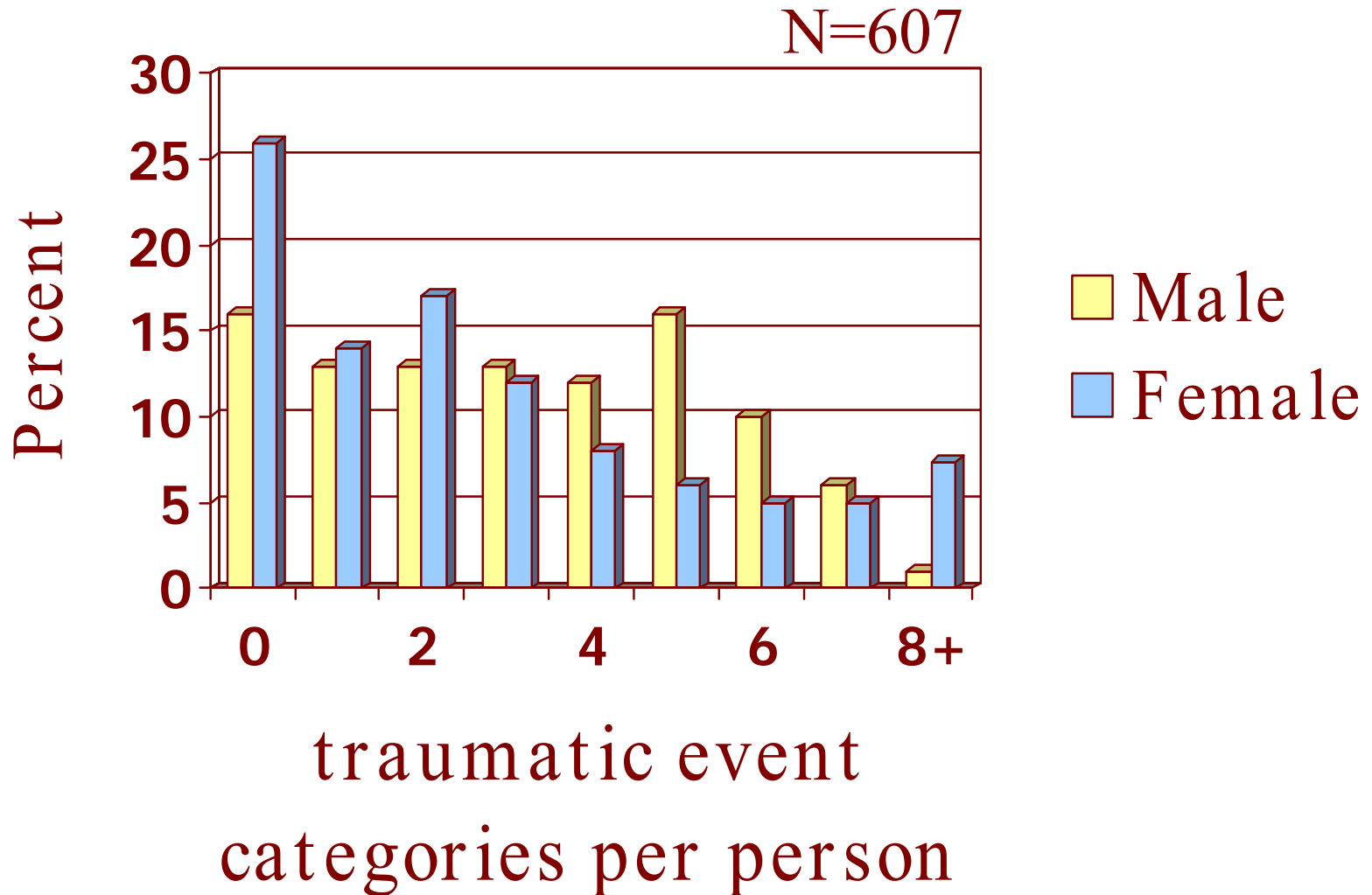
Cross-sectional sample of patients waiting for primary care appointments at academic affiliated, urban safety-net hospital primary care practices

English Speaking, age 18-65

PRISM Participants

	N=509	%
Black/Latino/White		59/19/8
Female		51
Completed High School		50
Married/partnered		27
Unemployed/disabled		49
Income <\$20K		52
Mean Age		42

BMC Primary Care Patients



Trauma Type Prevalence

	N=509	%
Witness Badly Injured/Killed		46
Physical Attack/Assault		41
Threatened W/Weapon/Held Captive/Kidnapped		37
Life-threatening Accident		32
Fire/Flood/Natural Disaster		22
Sexually Molested		21

Trauma Type Prevalence

	N=509	%
Raped		16
Violent Death Of Family/Friend		13
Violent Acts To Family/Friend		12
Sexual Violence To Family/Friend		8
Tortured Or Victim Of Terrorism		5
Direct Combat Experience		3

PTSD Prevalence

	N=509	%
Current (12 month) PTSD*		23
Lifetime PTSD		34
Median Duration in Years		6
Median Age at Diagnosis in Years		25

*Composite International Diagnostic Interview version 2.1

Liebschutz, Saitz, Brower, et. al. JGIM, in press, 2007

Current PTSD Prevalence in Select Conditions

adjusted for age, gender, race, income, employment and marital
status

	N=509	%
Chronic Pain		23
Major Depression		35
Anxiety Disorders		42
Heavy Drinking*		26
Irritable Bowel Syndrome*		34
Substance Dependence*		26

*N=607

PTSD and Substance Abuse

N=509	Lifetime PTSD	Current PTSD
Hazardous Alcohol Use	2.12	1.52
Alcohol Disorder	1.83	1.07
Drug Disorder	1.99	1.54
Substance Dependence	2.58	1.62

Analysis adjusted for age, race, gender, marital status, income, employment

PTSD and Trauma Exposure Health Care Utilization

Incidence Rate Ratios Of Current PTSD, Trauma Exposure With Prior 12-month Utilization*

	Current PTSD N=570	Trauma Exposure N=577
Outpatient Visits	1.04	1.10
ED Visits	1.07	1.07
Hospitalizations	2.22	0.94
Inpatient Nights	2.62	0.84
Mental Health Visits	2.15	3.90

* Poisson regressions adjusted for age, gender, income, substance dependence, depression comorbidity.

Immigrant Mental Health Care Utilization

	Immigrant (n=144) %	US-/PR-born (n=362) %
PTSD	24	38
Depression	38	45
Anxiety	14	25
Any MH D _x	52	61

Immigrant Mental Health Care Utilization

MHCU=at least one MH visit and/or psych R_x

	Immigrant (n=144) %	US-/PR-born (n=362) %
MHCU	46	61

Physician Recognition, Treatment of PTSD

EMR Notation	Participants with Current PTSD (n=570) %
PTSD D _x	11
Depression D _x	50
SSRI R _x	18
Mental Health Visit	14
SSRI and/or MH Visit	50

Physician Recognition, Treatment of PTSD

PTSD Treatment =
SSRI R_x or Mental Health Visit

	Odds of PTSD Treatment
Current PTSD*	3.0
Current PTSD†	1.7
Mental Illness in EMR	17.4

*Adjusted for age, sex, employment

†Adjusted for age, sex, employment, mental illness in EMR

BMI and PTSD

No association between Lifetime PTSD and Mean BMI

	Mean BMI	p-value
Lifetime PTSD n=162	30.6	0.9
No Lifetime PTSD n=271	30.7	

BMI and Trauma Exposure

Trauma Category	Mean BMI	
	Trauma	No Trauma
Direct Combat	30.2	30.7
Life-threatening Accident	31.9	30.0
Fire, Flood, Natural Disaster	31.8	30.4
Witness Assault or Murder	30.9	30.5

BMI and Trauma Exposure

Trauma Category	Mean BMI	
	Trauma	No Trauma
Rape	32.3	30.3
Sexual Molestation	32.7	30.1
Physically Attacked, Assaulted	31.1	30.4
Threat w/weapon, held captive, kidnapped	31.0	30.5
Torture or terrorism	31.5	30.7

PACT Methods

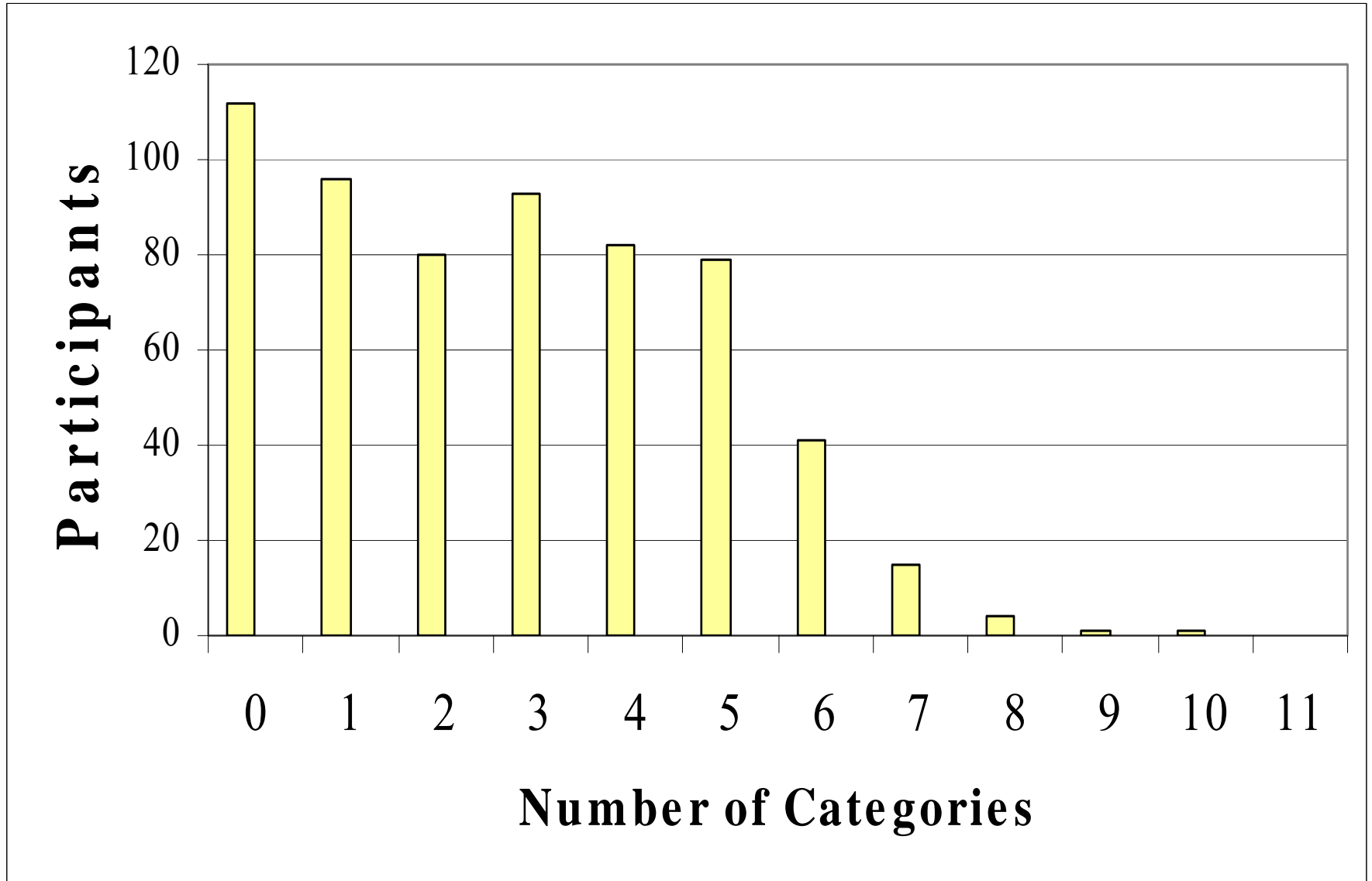
PTSD, Addiction, Chronic Pain and Trauma Study

- Cross-sectional; waiting room
- Eligibility Criteria
 - 18-60 years old
 - English-speaking
 - Primary care appointment
 - Pain and analgesic use ≥ 3 months

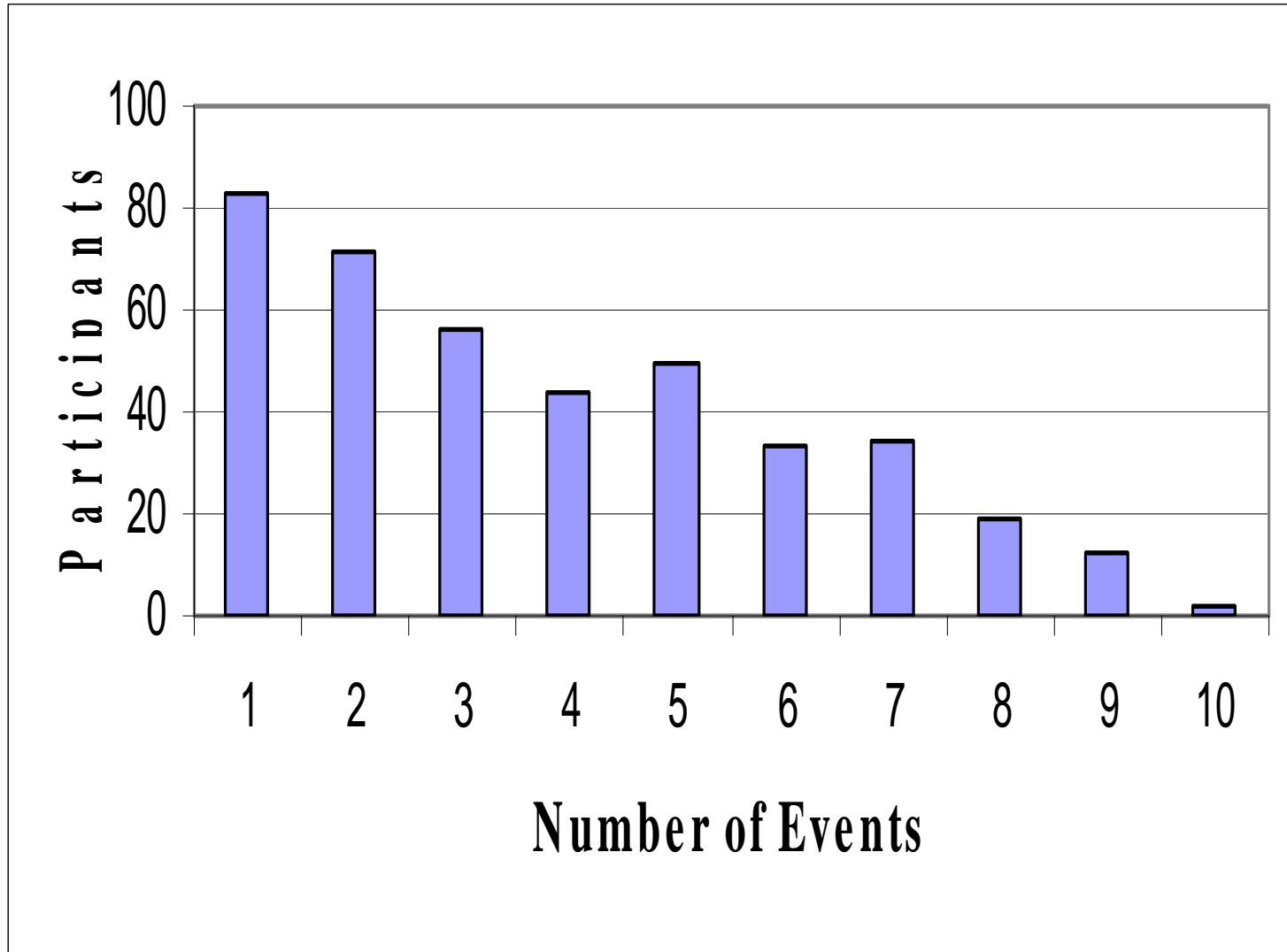
PACT Participants

	N=605	%
Black/Latino/White		61/10/17
Female		59
Completed High School		72
Married/partnered		28
Unemployed/disabled		60
Income <\$20K		61
Mean Age		46

Trauma Categories Endorsed



Adverse Childhood Events



IPV Section

6 questions on victimization & perpetration

- Has partner (have you) ever threatened you (your partner) with violence?
- Have you (has your partner) ever had an injury due to fight with a partner (you)?
- Has a partner (have you) ever insisted on having sex with you (your partner)?

Intimate Partner Violence

	Prevalence	Victim Events Mean	Perp. Events Mean
Victim	23%	1.80	-
Perpetrator	6%	-	1.31
Both	28%	2.06	1.45
None	44%	-	-

IPV and Pain

	Disability*	Somatization**
Victim	3.81	2.10
Perpetrator	2.86	1.07
Both	1.65	2.21
None	1	1

*Graded Chronic Pain Scale

**PHQ-15

IPV and Mental Health

	Current PTSD*	Depression**
Victim	2.86	2.70
Perpetrator	1.05	1.85
Both	4.05	2.29
None	1	1

*CIDI v. 2.1

**PHQ Depression- Major depression

IPV and Substance Use

	Lifetime Drug Disorder	Lifetime R _x Abuse	Current SUD
Victim	1.76	1.41	1.76
Perp.	2.05	2.40	1.31
Both	2.94	3.05	2.76
None	1	1	1

PTSD and Substance Use Problems

N=605	PTSD	No PTSD
Drug Disorder	25 %	14 %
Prescription Drug Disorder	18 %	8 %
Alcohol Dependence*	15 %	10 %

*p=0.13

Rosa, revisited

CC: back pain

43 y.o. Cape Verdean female

PMH: asthma, chronic back pain, Htn, migraine HA

Meds: Ibuprofen, Acetaminophen + Oxycodone,
Fioricet, HCTZ, inhalers (Steroid, beta-agonists)

Multiple ED visits/admissions for asthma

Back pain refractory to PT, NSAIDS

Rosa

- Saw her monthly for about three years
- Each visit began with discussion of pain and pain medication
- Discussions of her son's death and her desire to stand between him and the knife
- Guilt about substance abuse when children were small
- Marital problems- husband's grown son from CV moved in with them and mistreated her
- Worsening of her symptoms with anniversary of murder

Rosa

- Eventually, patient began to make the connection between physical pain and grief with improvement in pain
- Started on Sertraline, up to 150 mg/day
- Visits lengthened to every 2 months, then every 3 months
- Slow taper off the narcotic pain medications
- Rare ED visit

Summary

- Trauma and PTSD in primary care
 - Common
 - Impact medical outcomes
 - Associated with substance misuse and pain
- IPV-perpetration and victimization
 - Distinct risks
 - Future directions?



Using Substances for Pain

	N=605	%
Ever Used Alcohol for Pain		18
Ever Used R _x Not Prescribed for Pain		14
Ever Used Illicit Drugs for Pain		18
Started Using Alcohol for Pain		8
Starting Using R _x Not Prescribed for Pain		12
Started Using Illicit Drugs for Pain		8