

Psychiatric Symptom Burden in Elders with HIV-Associated Neurocognitive Disorders

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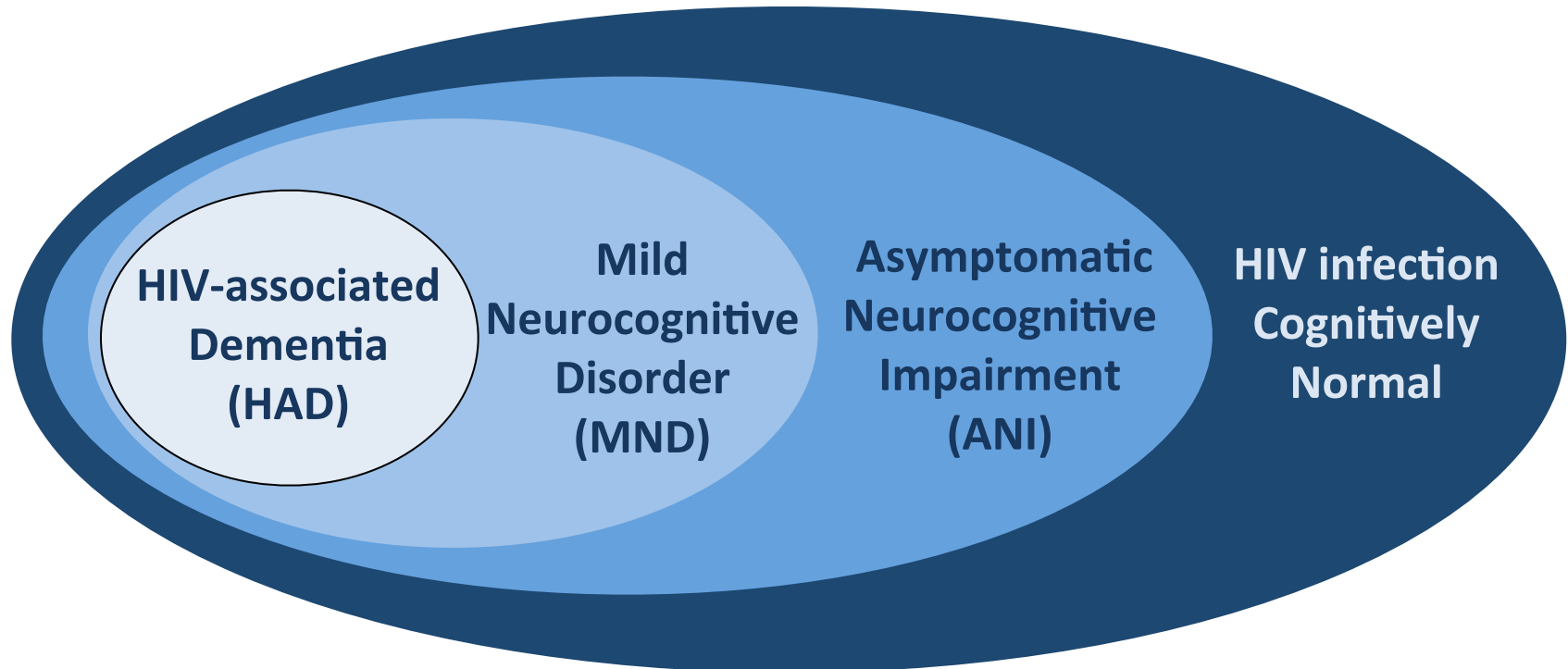
Disclosures

- The authors have no interest conflict to report
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Introduction

- By 2015, more than half of U.S. HIV+ population will be over 50 (Justice et al., 2010)
- Psychiatric illness is common in older HIV+ patients
 - ❖ Among 917 HIV+ adults (aged ≥ 50) depression was the most common comorbidity (52%) (Karpiak et al., 2006)
 - ❖ Among 452 HIV+ adults (aged ≥ 50) 64% reported experiencing an episode of depression in the past three years (Balderson et al., 2013)
- Despite its prevalence, psychiatric illness is often missed in HIV especially in those aging with HIV

Introduction - Cognitive Impairment in HIV



Objective

- To examine psychiatric symptoms in HIV-infected subjects over 60 with and without HAND (HIV-Associated Neurocognitive Disorders) compared to controls
- Tools: Neuropsychiatric Inventory Questionnaire (NPI-Q), Geriatric Depression Scale (GDS) scores

Measures

- The NPI-Q assesses 12 psychiatric symptoms
 - ❖ Delusions, Hallucinations, Depression, Anxiety, Elation, Agitation, Apathy, Irritability, Disinhibition, Motor Disturbance, Nighttime Behavior, Appetite
 - ❖ Responses coded as “yes” or “no”

- The GDS yields a total score (from 0 to 30) with the following recommended cutoffs:
 - ❖ Normal = 0-9
 - ❖ Mild depression = 10-19
 - ❖ Severe depression = 20-30

Participants Selection

- Participants with HIV aged 60 and above recruited from community fliers and HIV provider's office (*UCSF HIV Over 60 Cohort*)
- Exclusions criteria included substance or alcohol abuse and major neurologic diseases such as multiple sclerosis demyelinating
- Healthy geriatric controls taken from a pre-existing database
- HAND diagnosis using the 2007 "Frascati" criteria and a standardized neuropsychological battery

Methods

- 3 groups: HAND, non HAND and healthy elders
 - ❖ HAND= 43% ANI and 56% MND; no dementia
- Chi-square test to explore frequencies of symptoms by NPI-Q
 - ❖ Kendall Tau-b test to explore differences across groups
- Analyses of variance (ANOVA) to examine:
 - ❖ Differences in NPI-Q clusters
 - ❖ Differences in GDS (total score and severity)
- Adjustment for multiple comparisons using Sidak correction

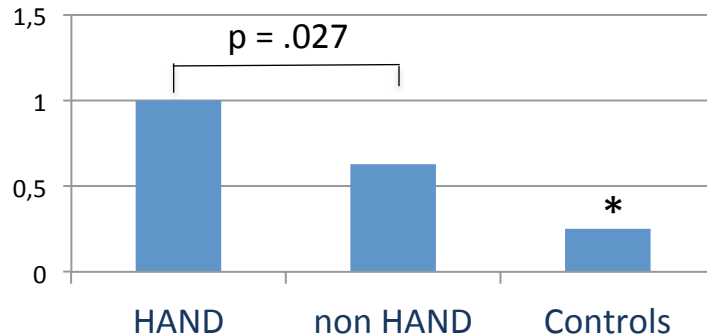
Sample Characteristics

	HAND n = 43	non HAND n = 43	Controls n = 236
Age, median (range)*	66 (61-85)	67 (60-80)	72 (62-79)
Gender (% male)*	93%	95%	39%
Education, mean years (SD)*	15.7 (2.3)	16.7 (2.3)	17.1 (2.7)
Ethnicity, Caucasian (%)	86%	95%	92%
MSM only (%)	81%	81%	-
CD4 count, mean (SD)	508 (212)	556 (229)	-
Nadir CD4, mean (SD)	198 (153)	211(145)	-
HIV duration, median (range)	21 (3-31)	21 (1-28)	-
Undetectable viral load (%)*	64%	86%	-
on cART (%)	93%	100%	-

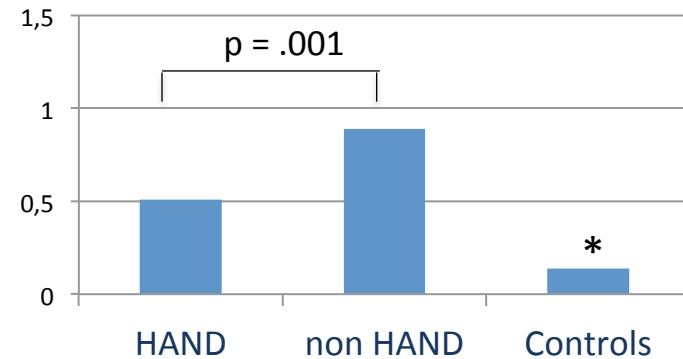
* p = 0.05

Mean number of symptoms by NPI-Q clusters

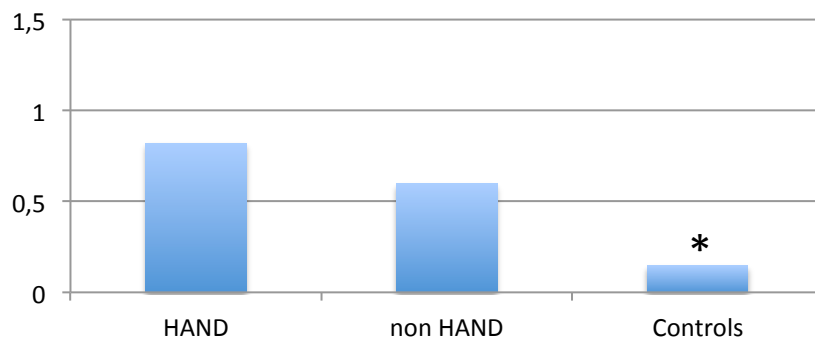
Mood (Depression – Elation - Apathy - Appetite)



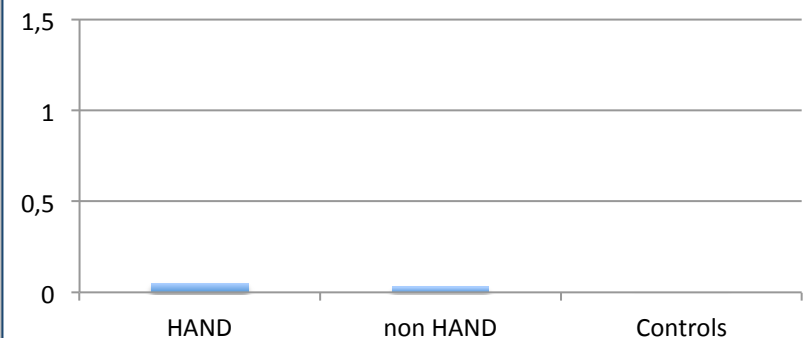
Agitation (Agitation - Irritability)



Restlessness (Motor disturbance - Night behavior - Anxiety - Disinhibition)

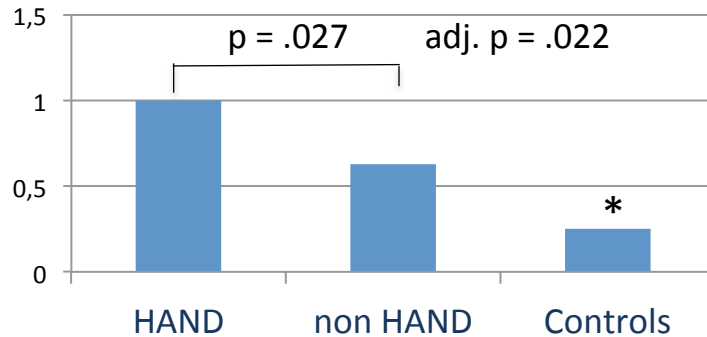


Psychosis (Delusions - Hallucinations)

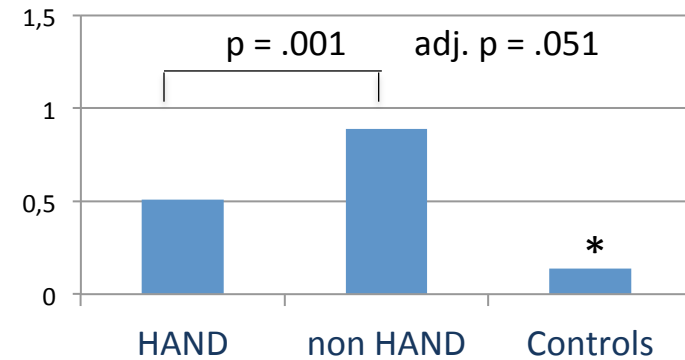


Mean number of symptoms by NPI-Q clusters

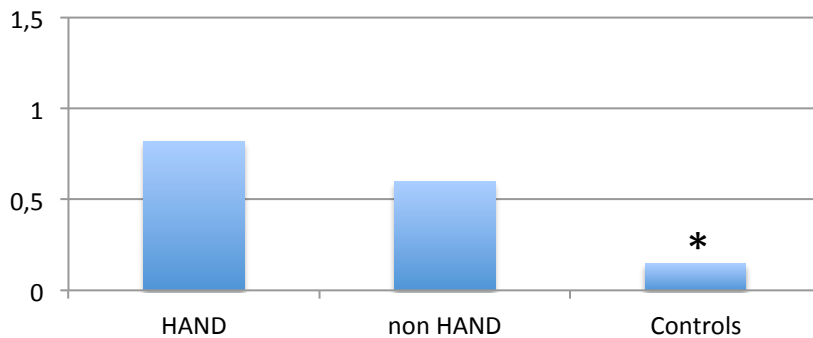
Mood (Depression – Elation - Apathy - Appetite)



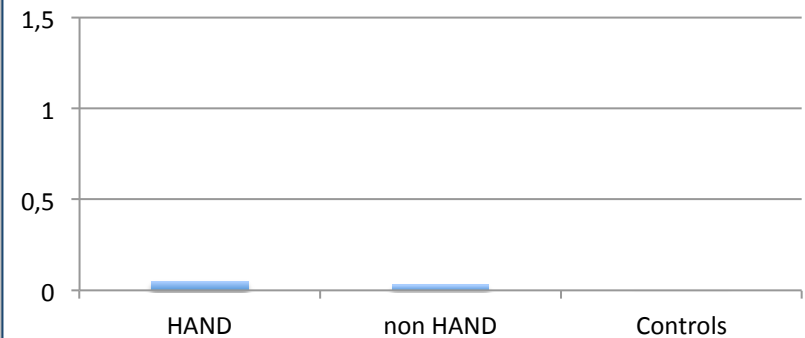
Agitation (Agitation - Irritability)



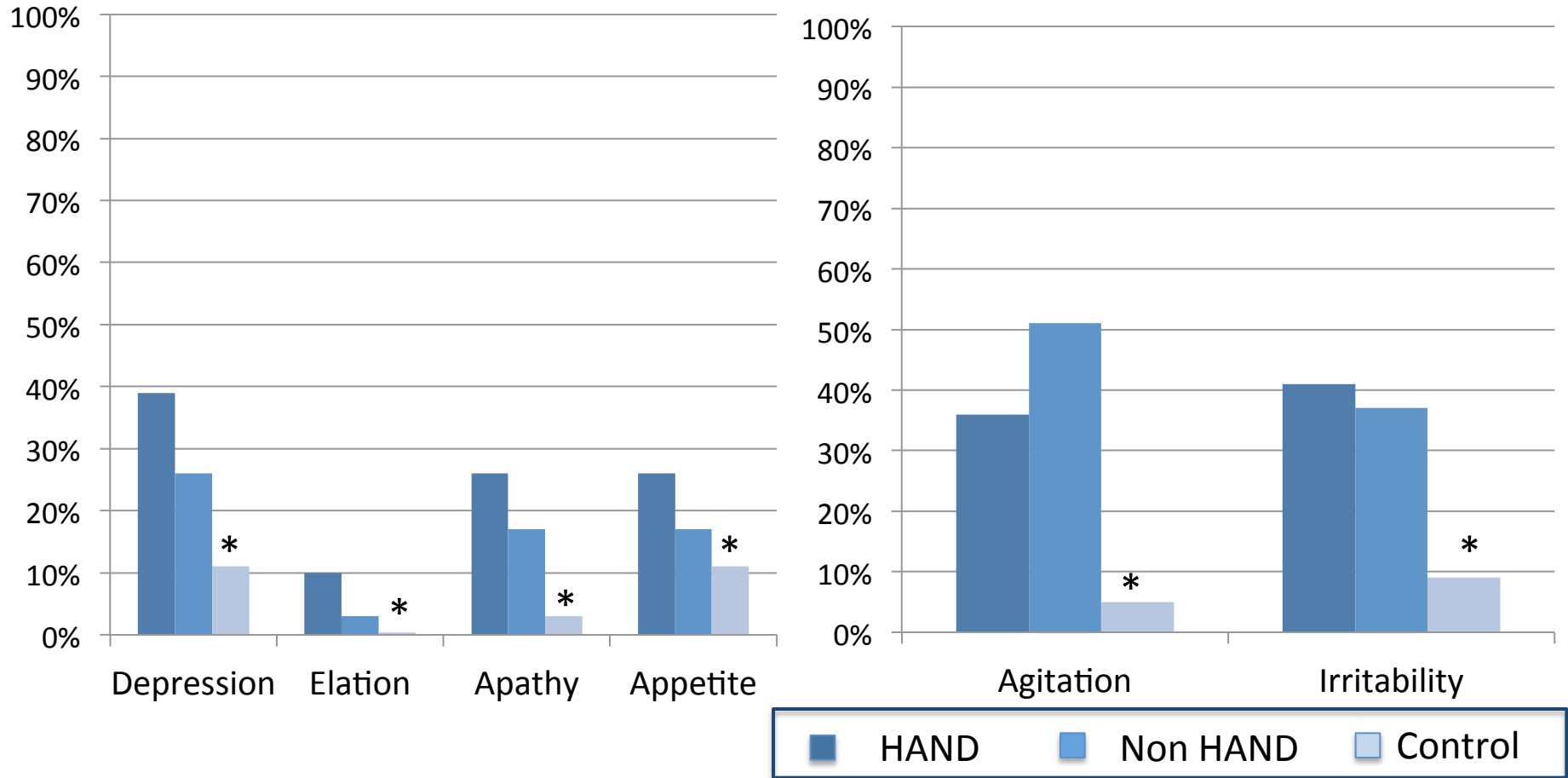
Restlessness (Motor disturbance - Night behavior - Anxiety - Disinhibition)



Psychosis (Delusions - Hallucinations)



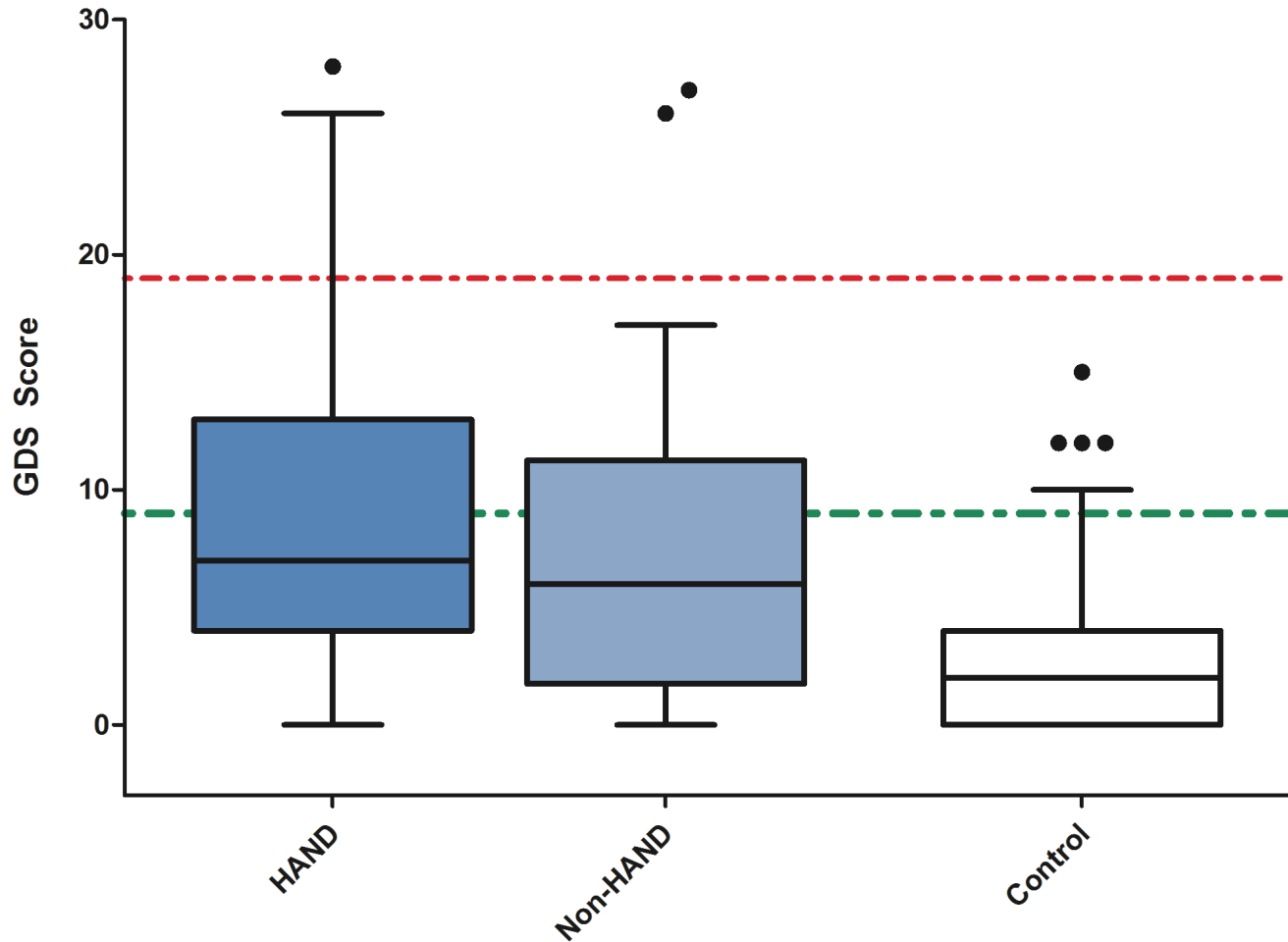
Frequency of symptoms by NPI-Q



→ *Significant difference between Controls and HIV groups (p=.05)

→ No significant difference after adjustment for viral load between HAND and non HAND

Mean for GDS score



→ After adjustment for viral load – no significant difference between HAND and non HAND. Controls significantly differed from both HIV groups

Conclusions

- Compared to controls: HIV+ subjects had higher rates of psychiatric symptoms and higher scores at the GDS
- When adjusted for viral load:
 - ❖ significant difference between HAND vs non HAND found for the MOOD cluster
 - ❖ for the AGITATION cluster the significance was lost, but a trend remains
- Limitations:
 - ❖ HIV+ groups small sample sizes
 - ❖ HIV+ subjects largely male
 - ❖ Control group mostly female and older compared to HIV+ participants

Implications

- This study highlights the behavioral burden associated with HIV in elders
- Psychiatric symptom screening should be routine practice in HIV
- Further studies to explore the association between cognitive impairment in HIV and psychiatric symptoms are necessary

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