The impact of stigma of alcohol on discussing alcohol use with a provider in Moshi, Tanzania

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Background

- In Africa, alcohol use is the **leading avoidable risk factor** and the **second worldwide worst** drinking pattern.
- Northern Tanzania has a community known to be characterized by **stigma and social isolation** against multiple medical diseases, but the perception for **alcohol use is unknown**
- Current KCMC Emergency Department (ED) data shows that **28% of patients who arrive at the ED** for treatment of an injury **consumed alcohol** just prior to their injury and therefore are considered 'hazardous drinkers'.

Aims

Analyze patients perceptions of stigma against alcohol use disorders and its association with alcohol use disclosure to a health care provider.

Methods

- **Setting**
  - Moshi is a city in the Kilimanjaro region of Northern Tanzania with a population of 143,799 and home to Kilimanjaro Christian Medical Center (KCMC), the third largest hospital in the country and the referral hospital for northwestern Tanzania

  - Prior literature supports that the Moshi population, specifically youth and bar workers, have high proportions of alcohol use disorders.

Methods

- **Population and sample**
  - 102 acute injury patients seeking care at KCMC Emergency Department

  - Inclusion criteria: To be clinically sober at the time of enrollment, medically stable, able to communicate in Swahili, and able to provide a full informed consent to participate.

  - Screened by trained research nurses

Methods

- **Variables**
  - *Alcohol adapted Perceived Devaluation-Discrimination scale (PDD)*
    - 12 questions - 6 point LIkert type scale - Score range from 1 (low stigma) to 6 (high stigma)
  - Harmful alcohol use (AUDIT)
    - 10 questions - 5 point Likert type scale - Score range from 0 (low) to 40 (high)
  - Drinker Inventory of Consequences (DrInC)
    - 50 questions - Yes/No type answers
  - Disclosure of alcohol use to health care provider
    - Any voluntary discussion of alcohol use with a health care provider in the past 6 months.

Methods

- **Data analysis**
  - Bivariate associations (chi-square or wilcoxon rank sum test) and logistic regressions between stigma, alcohol use and consequences with disclosure to a health care professional.
  - Structural equation modeling to evaluate the mediating role of stigma and alcohol related consequences to the association between alcohol use and disclosure to a health care professional.
  - R Language for Statistical Computing - lavaan package.

Results

- **Sample characteristics**
  - Men (87.1%)
  - Average age of 38.7 years (sd 14.2)
  - Consuming a median of 3.0 (IQR 2.0;4.0) drinks per drinking day
  - 15.3% tested positive for alcohol at arrival to the hospital
  - Median harmful alcohol use (AUDIT score) of 5.0 (IQR 2.0;12.0)
  - 37.6% reported that drinking impacted their lives and their social peers
  - 3.5% were arrested
  - 18.8% reported that their drinking influenced engaging in risk behaviors responsible for their injuries.
  - The median amount of any negative alcohol related consequences was 7.0 (4.0;19.0)

Results

Table. Alcohol use patterns and the association with disclosure of alcohol use.

	Total (N=85)	Discussed Alcohol Use (N=15)	Did not discuss alcohol use (N=70)	Unadjusted OR (CI 95%)/P-value
Alcohol positive prior to injury, N (%)	13 (15.3)	5 (33.3)	8 (11.4)	**3.87 (1.01;14.2)/0.04**
Drinks per day drinking, Median (IQR)	3.0 (2.0;4.0)	5.0 (3.5;7.0)	2.5 (2.0;3.0)	**1.51 (1.18;2.07)/<0.01**
Drinking interfered with your life, N (%)	32 (37.6)	13 (86.7)	19 (27.1)	**17.45 (4.31;118.49)/<0.01**
Drinking problems with social peers, N (%)	31 (36.5)	11 (73.3)	20 (28.6)	**6.86 (2.09;27.21)/<0.01**
Drinking and risk behavior for injury, N (%)	16 (18.8)	7 (46.7)	9 (12.9)	**5.93 (1.72;20.89)/<0.01**
Drinking lead to arrest, N (%)	3 (3.5)	1 (6.7)	2 (2.9)	2.43 (0.11;27.10)/0.48
AUDIT score, Median (IQR)	5.0 (2.0;12.0)	19.0 (6.0;21.5)	4.0 (2.0;8.0)	**1.08 (1.03;1.16)/<0.01**

Results

Table. Perceived alcohol stigma and the association with disclosure of alcohol use.

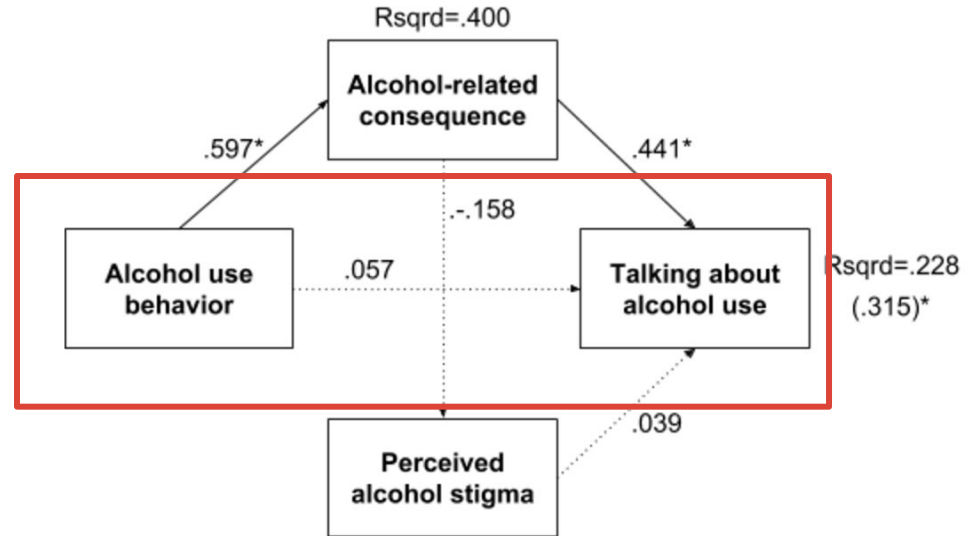| Perceived stigma, Median (IQR)	Total (N=85)	Discussed Alcohol Use (N=15)	Did not discuss alcohol use (N=70)
Perceived alcohol stigma	3.1 (2.7;3.6)	3.1 (2.8;3.6)	3.1 (2.6;3.6)
Perceived devaluation	3.8 (3.0;4.2)	3.6 (3.0;4.0)	3.8 (3.0;4.4)
Perceived discrimination	3.0 (2.3;3.1)	3.1 (2.6;3.1)	2.9 (2.3;3.1)

Results

Figure 1. Impact of alcohol use behavior on talking about alcohol use mediated by alcohol related consequences or perceived alcohol stigma.
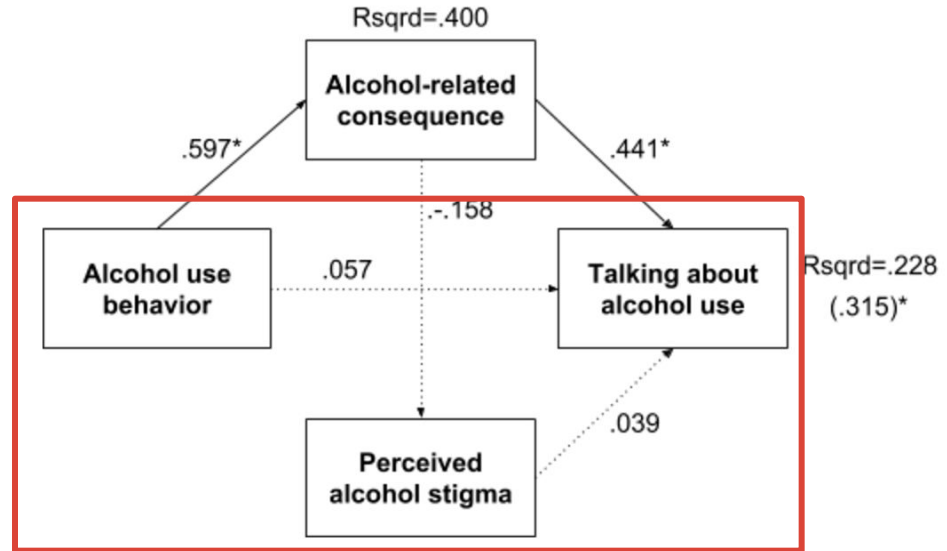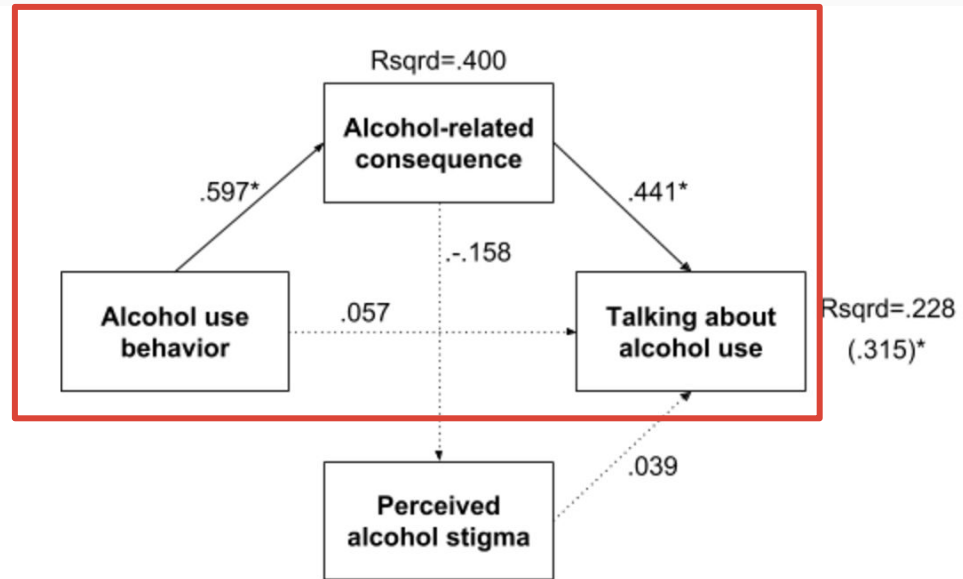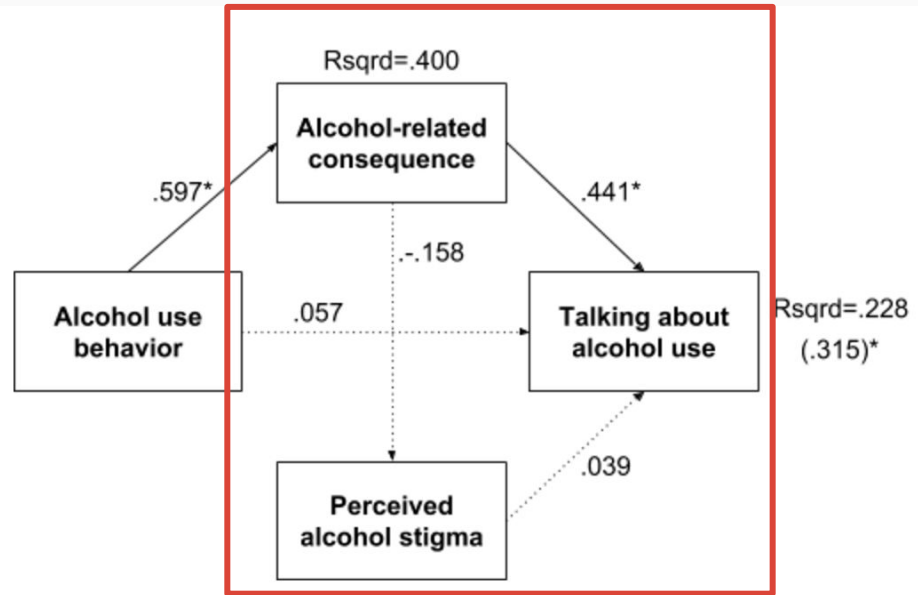
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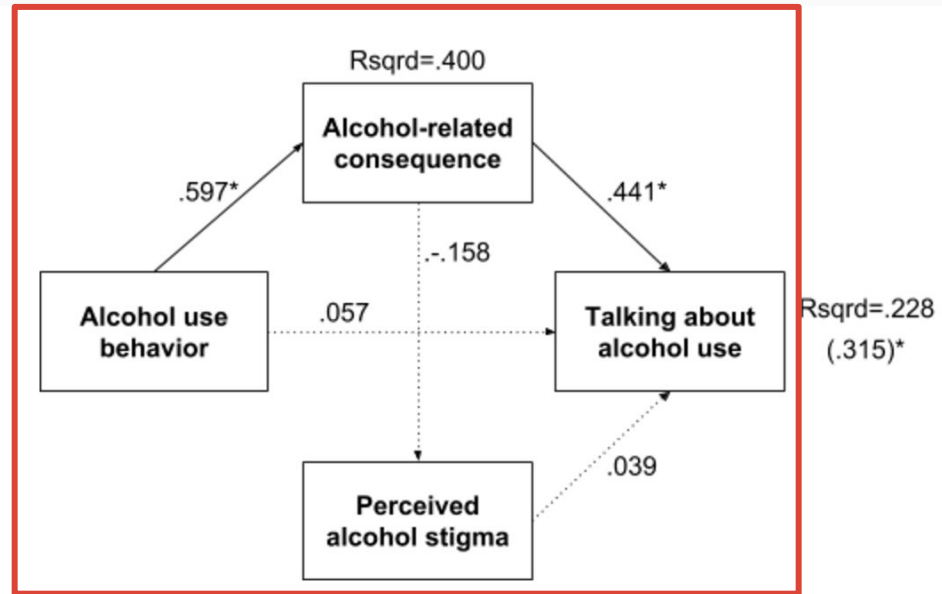
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Summary

- High level of perceived alcohol stigma
- No association with disclosing alcohol use to a health care professional
- Patients with high alcohol use patterns are associated were more likely to disclose alcohol use to health care professionals

Thank you!

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