

Gender Differences in the Relationship Among Norms, Protective Strategy Use, and Marijuana Use

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Introduction

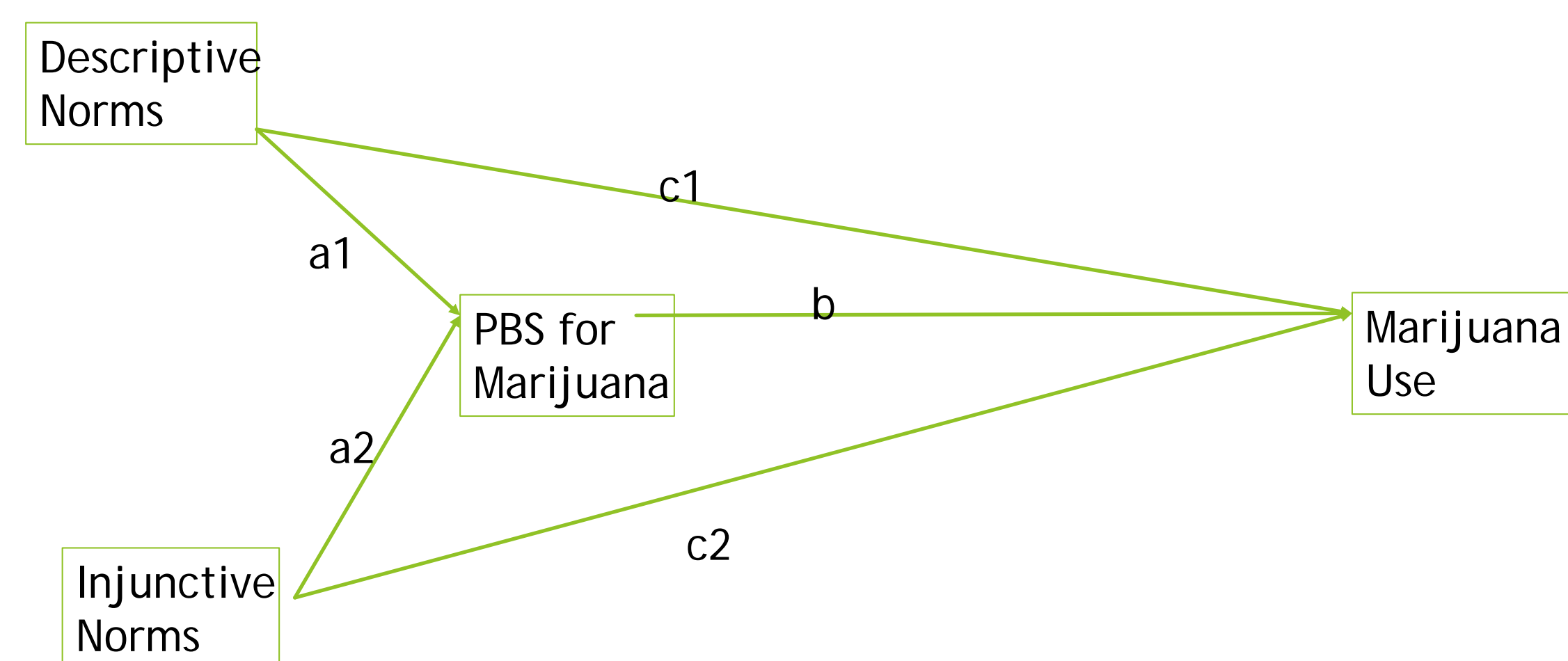
Attitudes about marijuana use are changing (Johnston et al., 2014) Marijuana use has more than doubled in the past decade (Hasin et al, 2015). 3 of 10 marijuana users meet criteria for a cannabis use disorder in 2012-2013 (Hasin et al, 2015).

Protective Behavioral Strategies (PBS): "Behaviors that one engages in to limit potential consequences should they choose to use the substance," (Pedersen, 2016). Strategy use negatively related to marijuana use (Pedersen, 2016).

No research to date has examined normative perceptions about strategy use.

Hypotheses

- 1) PBS use is negatively related to marijuana use
- 2) Descriptive and injunctive norms for marijuana protective strategies are positively associated with the strategies
- 3) Descriptive and injunctive norms influence marijuana use via PBS use
- 4) Gender will act as moderator of the indirect relationship



Methods

The study collected information from regular marijuana users (N=55). We used a community sample recruited through Facebook advertisement. Participation criteria included being English speaking young adults aged 18-30 (community sample), having a GED or high school diploma, and using marijuana at least 3 times per week. (Age: M= 24.33, SD= 3.07, 63% male, 37% female.)

Measures:

PBSM: *Protective Behavioral Strategies for Marijuana Use* (PBSM; Pedersen, Hummer, Rinker, & Neighbors, 2016). 50 Item Questionnaire, Rating items from 1=Never to 6=Always. Examples: "Only use marijuana among trusted peers," "Avoid using marijuana in concentrated forms."

Social Norms:

Injunctive Norms: norms assessed participants' beliefs about typical male or female acceptance of a friend using MPS ("How approving do you think a typical male/female would be of a friend using protective strategies for marijuana use"),
Descriptive Norms: assessed participants' beliefs about how common MPS use is among typical males and females, ("How often do you think a typical male/female used protective strategies for marijuana use (like the ones discussed in the focus group) in the past year?")

Marijuana Use: *Self-administered Timeline Followback (S-TLFB;* cf., Collins et al., 2008) Measured in joints per day. During the past 30 days, when you smoked/ used marijuana, how many average-sized joints did you smoke PER DAY?

Descriptive Norms: *What is typical or normal. What most people do.*
The "is"

- How often do you think a typical male/female used marijuana during the past year?" (Presley et al. 1998).

Injunctive Norms: *rules or beliefs as to what constitutes morally approved and disapproved conduct.*
The "ought"

- How much do you approve of someone smoking marijuana regularly? (LaBrie et al. 2011; Neighbors et al. 2008).

	Male (means)	Female (means)
MJ Use	2.44	3.20
PBSM average	2.97	2.90
DN PBS	5.55	4.86
IN PBS	6.94	7.05

Results

Hypothesis 1: There was less marijuana use in terms of joints per day for those who reported more protective behavioral strategy use for both males and females.

Hypothesis 2: Higher descriptive norms were associated with more protective behavioral strategy use in males, and higher injunctive norms in females, but not vice versa

Hypothesis 3: There was an indirect pathway from normative perceptions to marijuana use via strategy use.

Hypothesis 4: The more common a male believes protective strategy use is predicts the likelihood that he will use them, while for females, the more she believes her peers will approve of using PBS the more likely she is to use them.

The link between PBS use and marijuana use was consistently negative across both males and females

Discussion

Marijuana use has a negative correlation with protective strategy use, which is potentially beneficial to individuals wishing to reduce use. There were differences between males and females regarding social norms, which could impact their likelihood to use protective strategies.

The study had a number of strengths including recruiting a sample of heavy marijuana users from the community, shedding initial light on the utility of examining normative perceptions about protective strategy use and broadening our understanding of the role of gender in the relations among norms, protective behavioral strategy use, and marijuana use.

However, the current study should be interpreted in light of its limitations including the small sample size and the reliance on self-report data, both of which warrant replication of the findings in a bigger sample.

Future Directions

More frequent use of protective behavioral strategy use was negatively associated with marijuana use. Those clients interested in reducing or quitting marijuana use would benefit from using protective behavioral strategies. Next, given that normative perceptions differed by gender, norms based interventions should emphasize injunctive norms for females and descriptive norms for males. Or more clearly emphasizing the prevalence of protective behavioral strategy use when working with males, and emphasizing the acceptability of using protective behavioral strategy us when working with females.