Integrating theories of alcohol consumption: how do drinking motives influence HAPA self-efficacy?

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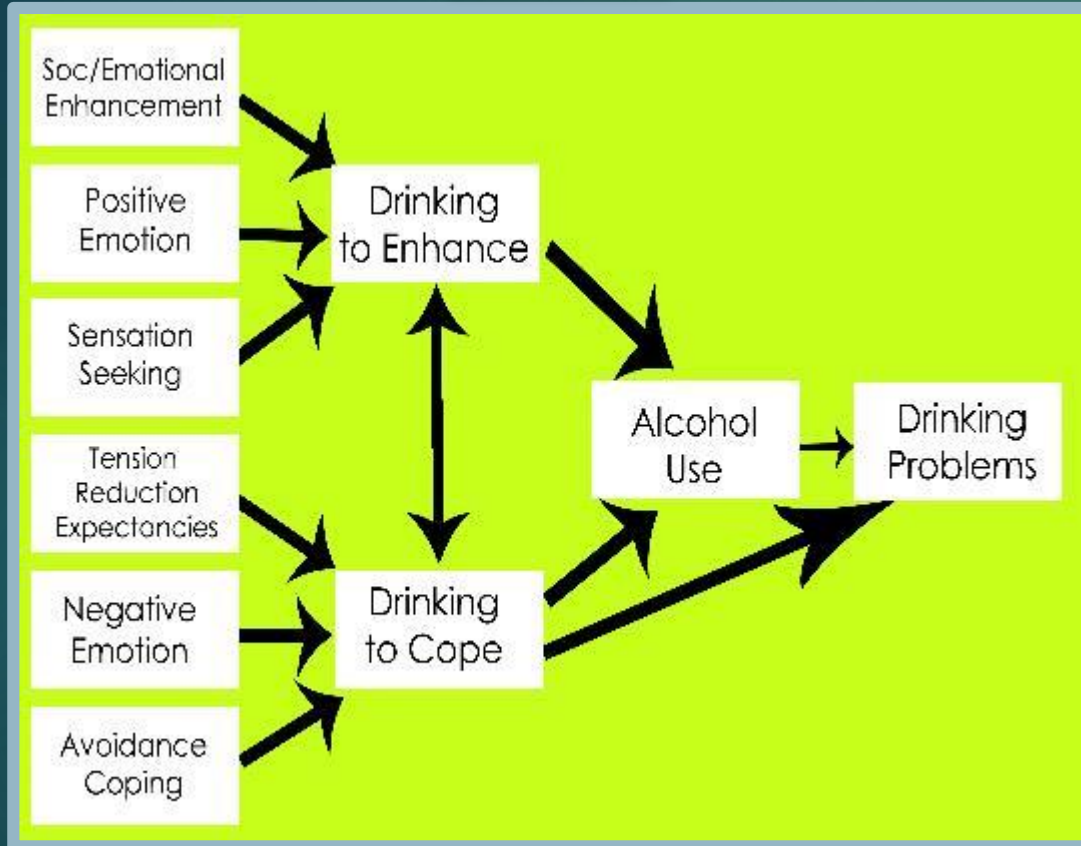
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Why integrate MMAU with HAPA?

▶ Socio-cognitive models are used to examine drinking behaviour

▶ E.g. Health Action Process Approach (HAPA) : Motivation to change drinking behaviour and consume less alcohol

▶ Motivational Model of Alcohol Use (MMAU): Motivation to consume alcohol to regulate positive and negative emotions

▶ Still substantial variance in drinking behaviour unaccounted for (+ 70%)

▶ E.g. HAPA – 23%, MMAU – 28%

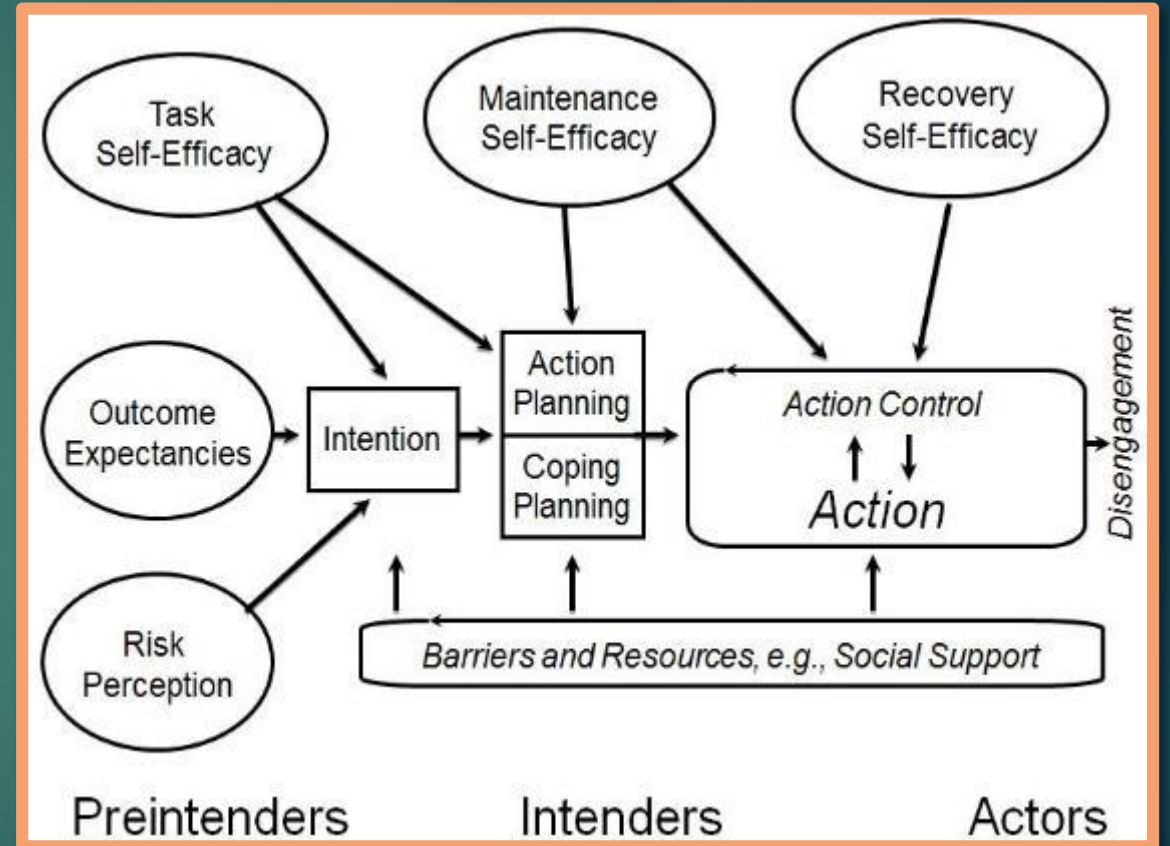▶ Integrating models can reduce unexplained variance and provide additional explanations for drinking behaviour

Source: Schwarzer, 2008; Renner et al., 2008; Murgraff, McDermott & Walsh, 2003; Cox & Klinger, 1988;. Kuntsche & Kuntsche, 2009, Hagger, 2009

MMAU and HAPA examples:

MMAU

HAPA

MODEL OF ALCOHL USE AS AN EMOTION MANAGEMENT STRATEGY

MOTIVATIONAL STAGE

VOLITIONAL STAGE

Source: Schwarzer, 2008; Renner et al., 2008; Cox & Klinger, 1988; Cooper, 1995; Veich, 2015

What was the aim of the study?

▶ Investigate how motivational factors that cause people to drink (drinking motives), interact with motivation to drink less (self-efficacy)

▶ Increase understanding of drinking behaviour and reduce unexplained variance in statistical models.

Why is this research important?

- In 2009, guidelines established to provide information on safe drinking.

- In 2012, 19.5% of Australians drank over the limits of guideline 1 of two standard drinks per day

- 44% of Australians exceeded guideline 2 of no more that 4 standard drinks per drinking occasion

- In 2013 - 2014, Australians consumed 184 million litres of pure alcohol, equivalent to 74 Olympic swimming pools.

- Lowest level in 50 years but more needs to be done

Why drink at healthier levels?

▶ Risk of immediate alcohol related injury: *Motor vehicle accidents * Falls * Fire * Aggression * Family violence * Intentional self-harm*

▶ The cumulative effects of alcohol have been linked to chronic diseases such as : *Cardiovascular disease * mouth * throat * liver and breast cancer * type II diabetes etc.*

Research can help…

… identify the main psychosocial determinants that indicate why some individuals drink at healthier levels than others

Scource: National Health and Medical Research Council (NHMRC), 2009; Schwarzer, Lippke, & Luszczynska, 2011; Hagger, 2009

WINE

VS

WATER

How was data collected?

▶ A convenience sample of 405 adults were recruited on a vehicular ferry in Southern Queensland.

▶ The data were collected using self-report questionnaires

▶ The study was a cross-sectional design

Key variables:

Thanks to Palace Backpackers & Air Fraser for the use of this photo

▶ **Self-efficacy**: An optimistic belief in ones ability to perform a task e.g. "I am certain I can reduce my alcohol intake" (Internal reliability: $a = .80$)

▶ **Drinking motives:** The final reason to drink or not – activated just prior to actual drinking event, e.g. "I drink alcohol because it makes me feel good" (Internal reliability: $a = .76$)

Bandura, 1977; Luszczynska, Mazurkiewicz, Ziegelmann, & Schwarzer, 2007, Oei et al., 2005; Kuntsche & Kuntsche, 2009; Cooper, 1994; Cox & Klinger, 1988

Results: Drinking Motives

▶ 398 surveys were retained for analysis. Data ranged from non-drinkers to heavy drinkers (+10 standard drinks daily) with 59% being male

▶ MMAU - Enhancement drinking motives were positively related to drinking behaviour. That is, as the motives to drink increased, alcohol consumption increased ($r = .51$)

Alcohol doesn't make me feel good - therefore I seldom drink it

Alcohol makes me feel good - therefore I drink it twice a week

Alcohol makes me feel GREAT! - therefore I drink it all the time!!

Results: Self-efficacy

▶ Self-efficacy was negatively related to drinking behaviour – That is as belief in one's ability to drink less alcohol increased, the amount of alcohol consumed decreased ($r = -.4$)

I don't believe I could reduce my alcohol intake - I usually drink above the guidelines…

I could reduce my alcohol intake – but sometimes I drink above the guidelines so I am not sure

I believe I can easily reduce my alcohol intake - because I usually drink within the guidelines anyway.

Results: Motives vs. Self-efficacy

▶ Drinking motives were negatively related to self-efficacy – That is, as motivation to drink alcohol increased, belief in one's ability to drink less alcohol decreased ($r = -.39$)

Alcohol makes me feel great…. Therefore I don't believe I could ever reduce my alcohol intake

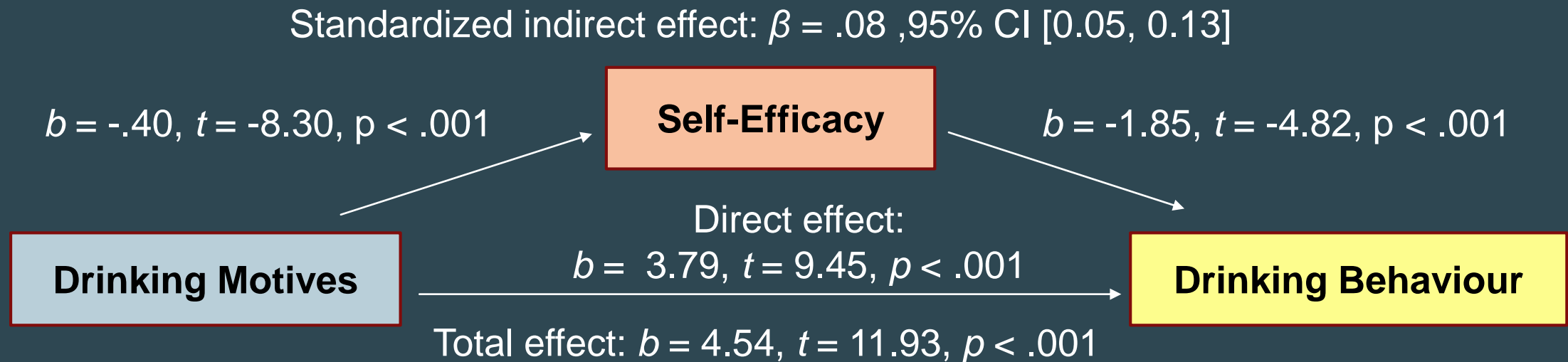Alcohol Makes me feel quite good… therefore I think I could reduce my alcohol intake most of the time

Alcohol doesn't really make me feel good therefore I believe that I could easily reduce my alcohol intake

Results: Mediation

► Hayes Process Model 4 suggested Self-efficacy mediated the relationship between drinking motives and drinking behaviour - This implies an indirect effect in addition to the direct effect

► Motives had a positive effect on drinking behaviour and a negative effect on self-efficacy. This represented a medium effect ($k2$= 9%)

► Total model summary accounted for 30.5% of variance in drinking behaviour.

Standardized indirect effect: β = .08 ,95% CI [0.05, 0.13]

Self-Efficacy

b = -.40, t = -8.30, p < .001

b = -1.85, t = -4.82, p < .001

Drinking Motives

Direct effect:
b = 3.79, t = 9.45, p < .001

Drinking Behaviour

Total effect: b = 4.54, t = 11.93, p < .001

What have we contributed to research?

► Self-efficacy suggests lower levels of drinking over and above motives

► Strong Motivation to drink suggests a suppression of self-efficacy

► Increased motivation to drink suggests increased drinking because of the negative effect on self-efficacy

What's interesting?

► High levels of self-efficacy as well as high levels of motivation to drink can occur

► Drinking motives are activated by cues to drink; their influence on self-efficacy is sporadic

► A change in the situational frame, changes motives, resulting in self-efficacy being differently effective

Scource: Ralston & Palfai, 2010; Oei et al., 2005

I'M NEVER DRINKING AGAIN ...oh look, beer!

Where to next ?

► Investigate integration of MMAU drinking motives and all HAPA variables

► Consider utility of integrating motive replacement and self-efficacy enhancement into HAPA planning to provide a framework for delivering healthier drinking interventions.

► Examine whether planning integration: a) improves planning/self-efficacy mediation and b) takes up drinking motive variance without encumbering HAPA model with additional variables

► Investigate the relationship between drinking motives, past behaviour and habit

► Conduct larger longitudinal studies to test integrated model as current research limited by cross sectional design

Any further enquiries?

For any further questions, please feel free to contact Denise Girdlestone at:

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