

Applying Behavioural Insights to HIV Prevention and Management: a scoping review

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BACKGROUND

- Globally, 37.7 million were people living with HIV in 2020 with 1.5 million new infections.
- Behavioural economics blends psychological and economic principles to provide unique insights into decision-making and behaviour change
- Behavioural economics framework MINDSPACE summarizes nine effects on people's behaviour that, once realized, can be harnessed to influence future decisions and ultimately improve public health
- We synthesized HIV prevention and management interventions which can be described by behavioural economic principles

METHODS

- Conducted a **scoping review**
- Searched for publications between 1st January 2000 and 31st August 2021 across **four databases** - Medline, PsycInfo, Scopus, and CINAHL

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> • Describe HIV prevention interventions (such as HIV testing, pre-exposure prophylaxis) or HIV management interventions (such as linkage to care, antiretroviral medication adherence), or included any of the MINDSPACE terms 	<ul style="list-style-type: none"> • Duplicated results from the same study • Systematic or literature reviews • Non-English studies

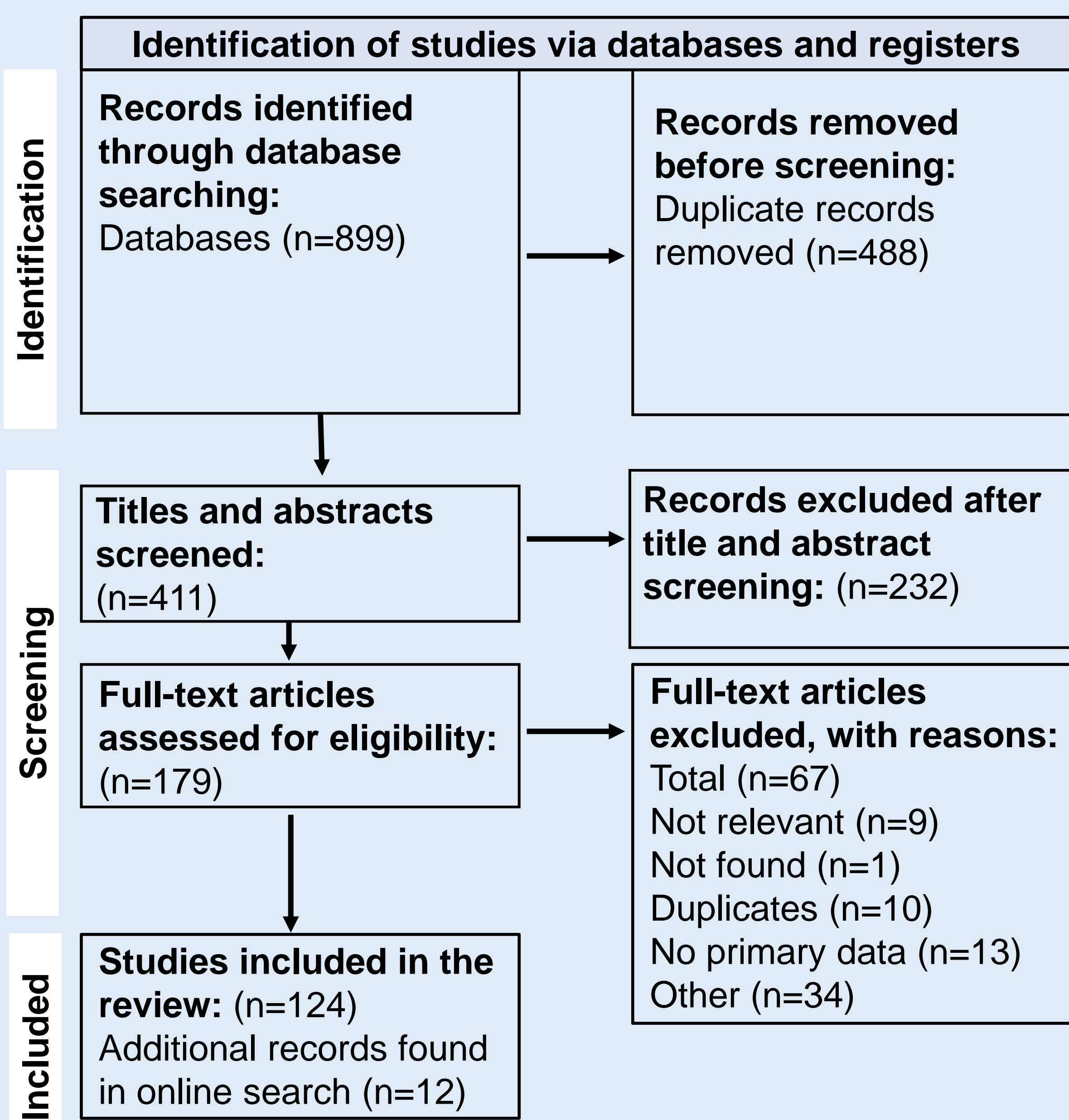
	Definitions
Messenger	Who communicates the information.
Incentive	Response to incentives can depend on how they are presented.
Norms	People are influenced by what others do.
Default	Preset options will be activated unless an active choice occurs.
Saliency	Attention is drawn to something novel or that seems relevant to the target population.
Priming	Exposure to subconscious cues may influence people's performance or choice on a subsequent task.
Affect	Emotional associations that shape actions.
Commitment	Consistency with public promises and reciprocate acts.
Ego	Acting in ways to make one feel better about themselves.

Key Concepts:

(1) HIV and AIDS prevention; (2) HIV testing (3) Medication, (4) PrEP, PEP, ART (5) Condoms (6) Incentives (7) Reinforcement (8) Economics (9) Behavioural economics

RESULTS

PRISMA Flowchart



- MINDSPACE applications were found in 63 HIV prevention studies and 63 HIV management studies
- Most common application was incentives (n=100) followed by messenger (n=59)
- Most studies involved the general population (n=77) followed by children and young adults (n=19)
- Most applications were found in Africa (n=60) followed by the Americas (n=52)

MINDSPACE components	n	%
Messenger	59	47.6
Incentives	100	80.6
Norms	17	13.7
Default	10	8.1
Saliency	48	38.7
Priming	13	10.5
Affect	14	11.3
Commitment	50	40.3
Ego	34	27.4
Populations targeted (HIV prevention and management)		
General population	77	61.1
Children and young adults	19	51.1
MSM	17	12.7
Substance users	13	10.3
Mothers and pregnant women	7	5.6
Transgender women	5	4.0
FSW	3	2.4

DISCUSSION

- MINDSPACE components were found in a variety of study designs (e.g., clinical trials, quasi-experimental designs, qualitative interviews.)
- We must be wary of one-size-fits-all nudges. Each nudge must be evaluated and carefully adapted to the local cultural context.
- Using a framework, like MINDSPACE helps consider how nudges could be applied to help people go with the flow of their automatic (System 1) decision-making patterns
- As nudge interventions move beyond academic interest to practical applications, they need to demonstrate and communicate their impact, particularly evaluating the value of multifaceted behavioural solutions.

CONCLUSION

Our study indicates that Messenger, Incentive, and Commitment were the most frequently applied nudges. Therefore, there is an opportunity for future interventions to explore the use of other nudges (e.g., default and priming) to gather further evidence to understand the feasibility and value of applying nudges in HIV prevention and management strategies. Further research, specifically about long-term behavioural changes regarding HIV health outcomes due to nudge interventions, is also warranted.