

Enhancing recruitment of marginalised populations in population health intervention research

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Introduction

- Conducting research that represents all social groups is essential to inform future policies to reduce health inequities.
- Great opportunities through sensors and smart phone developments to engage large cohorts to citizen science.
- Recruiting diverse/representative samples is challenging. Excluding marginalised populations can bias results.



Objective

Review the literature and synthesize current knowledge on recruitment methods and frameworks used to enhance recruitment and retention of marginalised/ disadvantaged populations.

Specifically, strategies targeting:

- 1) people with low socio-economic status (SES);
- 2) people from ethnic/racial minorities;
- 3) immigrants; and
- 4) people from the LGBTQ2+ community.

Methods: articles retrieved

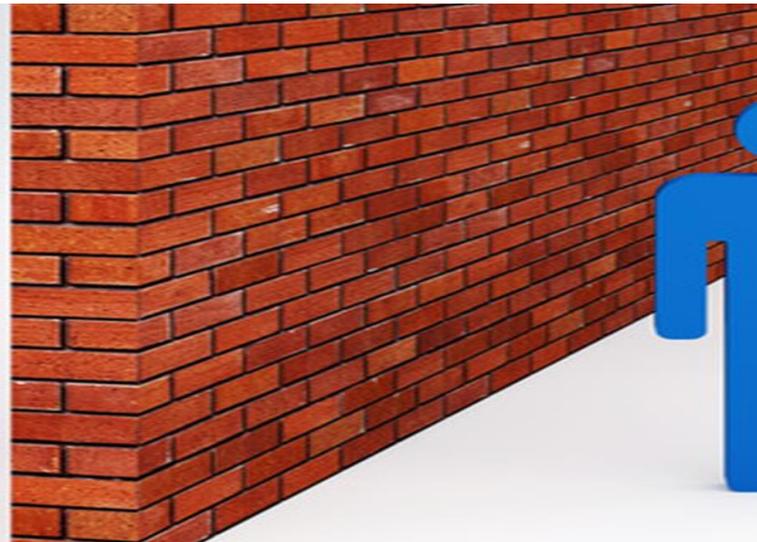
- Review articles (n=19) published until 2018 and original articles (n=66) published from 2008 to 2018 identified through 4 search engines and snow ball review.

***Keywords:** recruit*, review, literature review, systematic review, realist review, scoping review, marginalized, marginalised, disadvantaged, hard to reach, hidden populations, low income, low socio-economic, poor, ethnic, minorities, LGBT*, Internet, and intervention research*

- Majority of articles published in the last 5 years.
 - Review articles (63%) – Original articles (83%)
- Exclusion:
 - Recruitment for clinical research;
 - Recruitment for mental health research;
 - Recruitment of older adults only.

Main themes of interest

- Barriers to recruitment and participation.
- Recruitment and retention methods used.
- Conceptual and theoretical frameworks guiding recruitment.



Barriers to recruitment and participation

1. Design and marketing of the study or other logistic barriers.
 - Random sampling.
 - Getting in contact and engaging targeted populations/ loss of contact.
 - Intensive time commitment/ scheduling conflicts/ transport.
 - Technologies unavailable to participants.
2. Participants perceptions and priorities.
 - Competing interests among busy participants.
 - Lack of transport/safety.
 - Perceiving no benefits from research.
3. Cultural beliefs, stigmas, and age related issues.
4. Perceived confidentiality and privacy issues.
5. Lack of trust in health research.

Recruitment Strategies

Direct strategies	Indirect strategies	
Face-to-face outreach	Traditional	Online technologies
On site	Advertisement print ads in multiple languages	Email
Door-to-door	Media/Radio	Social media
Help of community partners	Mail	Text messages
	Telephone	Local classified ads
	Word of mouth & referrals	Websites

Sampling: Using targeted sampling

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Direct strategies	Indirect strategies	
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Help of community partners	Print ads in multiple languages/ referrals	Social Media

Representation

- Socioeconomically disadvantaged
- Ethnic minorities
- Older participants identifying as:
LGBTQ2 or Men who have Sex with Men (MSM).

- Powerful to reach larger numbers.
- Less effective in targeting marginalised populations.
- **Social Media:** young, LGBTQ2+, well-educated and non-ethnic minorities.
- Samples recruited through social media comparable to those recruited through traditional means in 13/18 studies.

Combine social media with traditional methods and recruitment through community partners.

Retention strategies and incentives

- Few studies discussed retention strategies.
 - Keeping several means of communication with participants.
 - Using incentives.
 - Maintaining strong rapport with participants.
 - Providing consistent beneficial participatory experience.
- Evidence on the effectiveness of incentives is limited.

Gaps

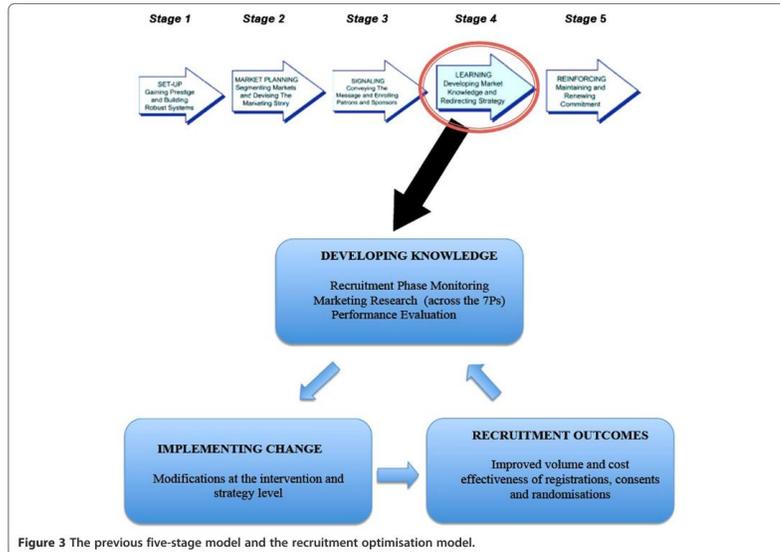
- The literature lacks reporting common performance indicators making it difficult to compare methods and effectiveness of recruitment between studies.
- The majority of the literature reporting on recruitment of marginalised population focused on promotion/recruitment strategies or barriers to participation.



Source: sdtimes.com

Frameworks to support recruitment

Social marketing framework



Decision process to participate in web surveys

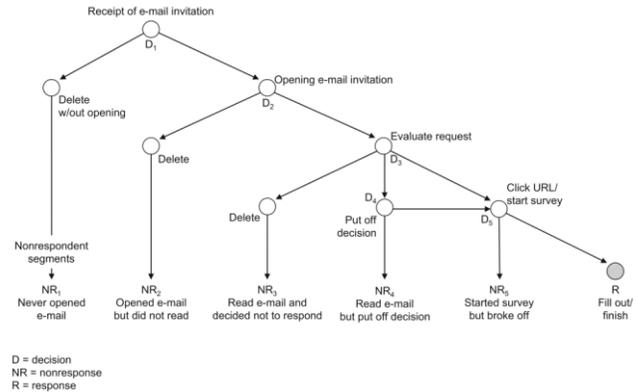


Fig. 1 Response decision process in Web surveys using e-mail invitations [adapted from Furse and Stewart (1984) and Albaum and Smith (2012)]

Survey participation theories

1. Cognitive dissonance theory
2. Social exchange and benefit cost
3. Compliance heuristics:
 - authority obedience
 - liking
 - reciprocity
4. Self perception theory (SPT)
5. Leverage-salience theory (LST)
6. Commitment/involvement
7. Theory of planned behavior (TPB)

Applying decision-making process of a consumer to recruitment research

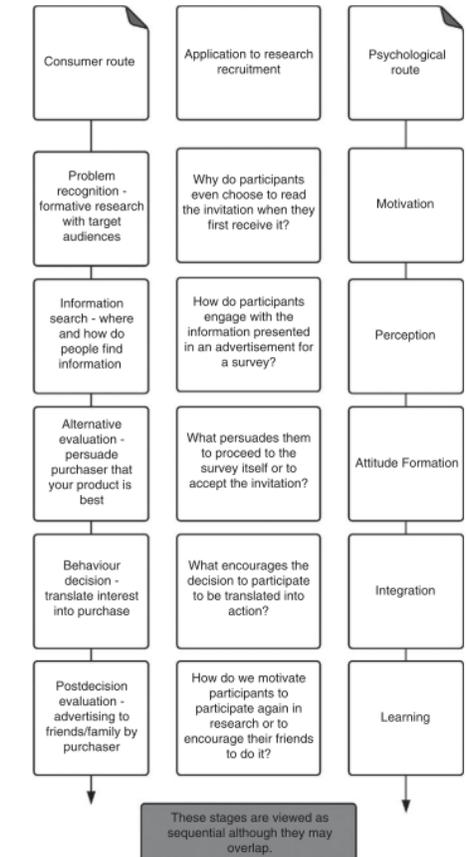
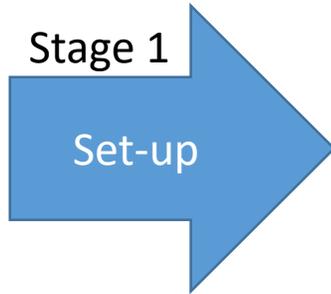


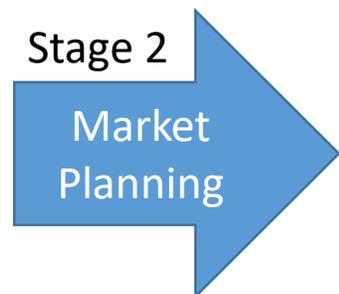
FIGURE 1 Proposed conceptual framework applying the decision-making process of a consumer to research recruitment, adapted from Belch et al. (2012)

References: (Francis et al. 2007; Galli et al. 2014; Keusch 2015; Howcutt et al. 2018).

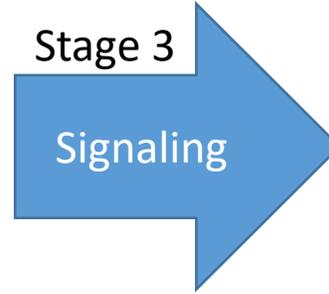
Social marketing framework



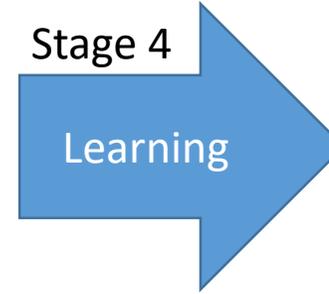
- Gain buy-in from necessary authorities, stakeholders and leaders.



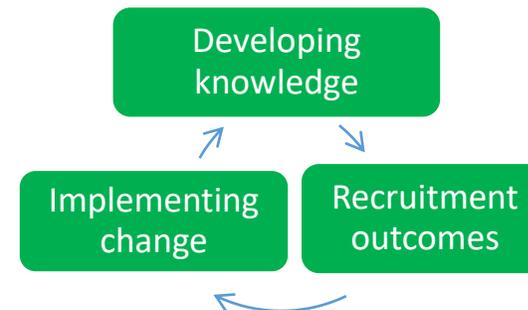
- Identify targeted samples through market segmentation.
- Understand what each group values.
- Identify motivations to participation.



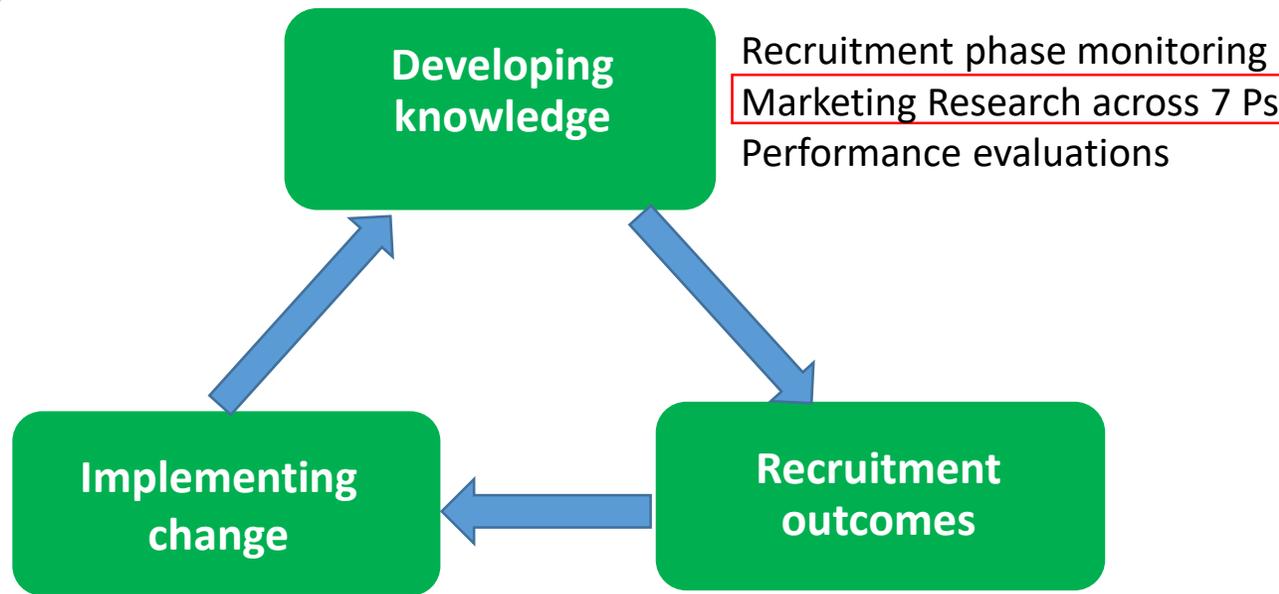
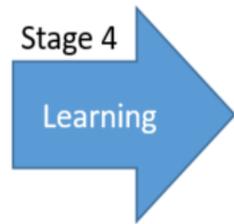
- Send persuasive messages to convey the value of the study



- Learn through doing



Social marketing framework: Stage 4



Modification of strategies

Improved volume and cost effectiveness of participation

(analyse: Reach, eligibility surveys, dropouts, consents, completed surveys, participation rates, etc.)

Marketing Mix

Product

Price

Promotion

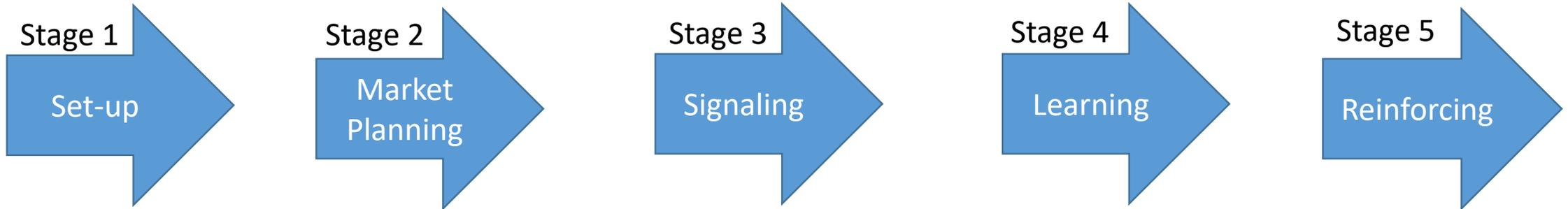
Place

People

Physical Environment

Process

Social marketing framework



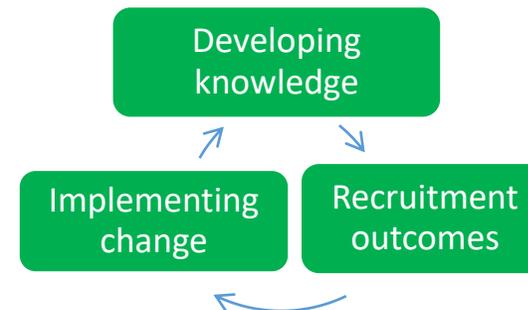
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- Learn through doing

- Maintain and renew commitment

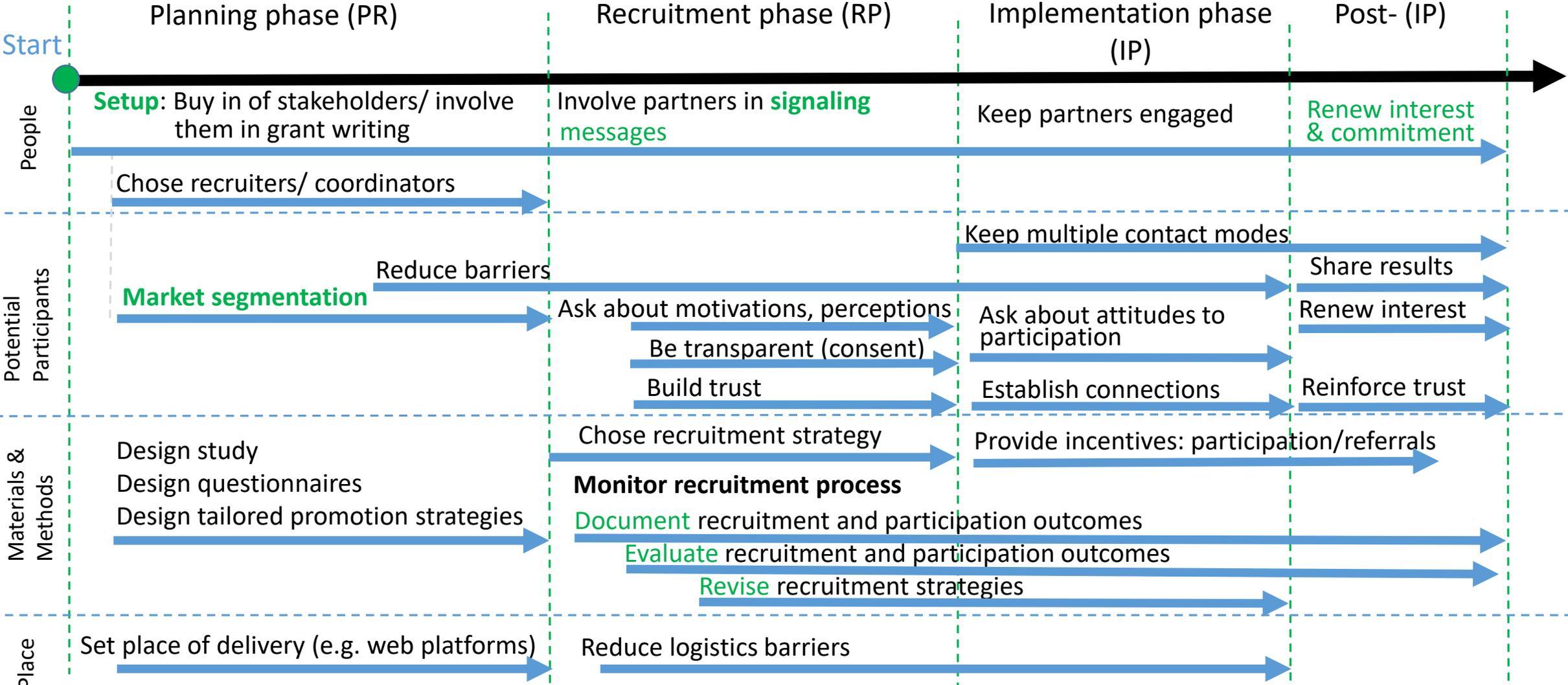


Conclusions

- Incorporating **social marketing recruitment framework** and understanding the **decision process to participation** can enhance participation levels of marginalised populations.
- **Accommodating participants needs** and reducing barriers are important.
- Using **combined recruitment strategies** to recruit marginalised populations specifically (social media + reach through partners help) and referrals.
- **Ethical considerations** should always be a priority: promoting **transparency to build trust**, ensuring **informed consent**, and **ensuring privacy and confidentiality**.



Recommended actions for project phases



Thank you

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Disclosure Statement:

I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

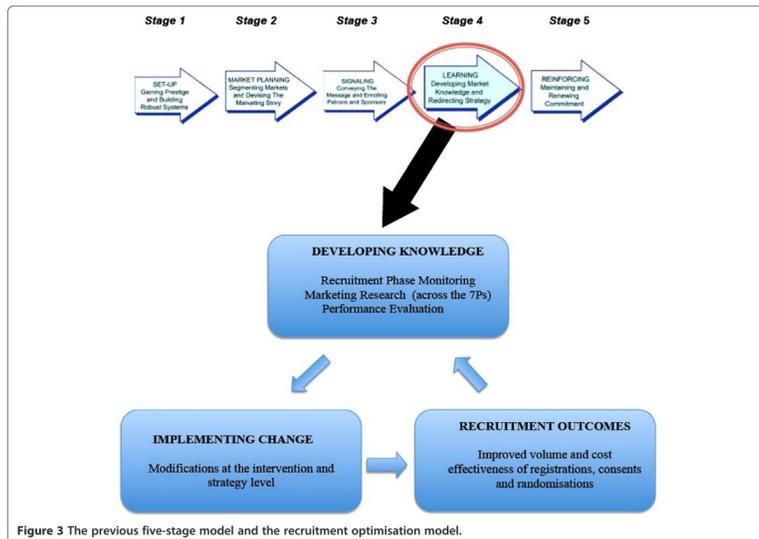
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Frameworks to support recruitment

Social marketing framework



Conceptual framework applying decision-making process of a consumer to recruitment research

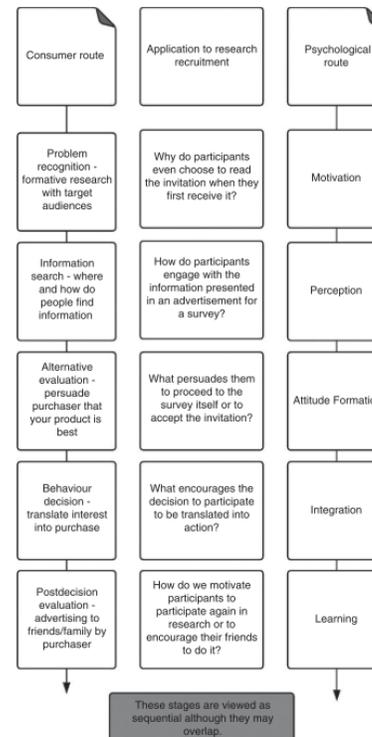


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Conceptual framework for the response decision process to participate in web surveys

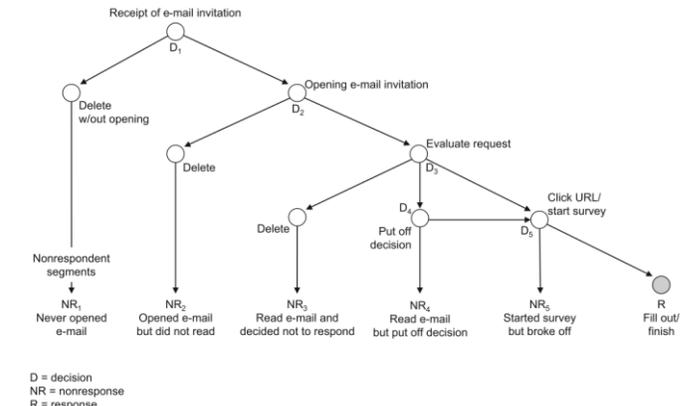


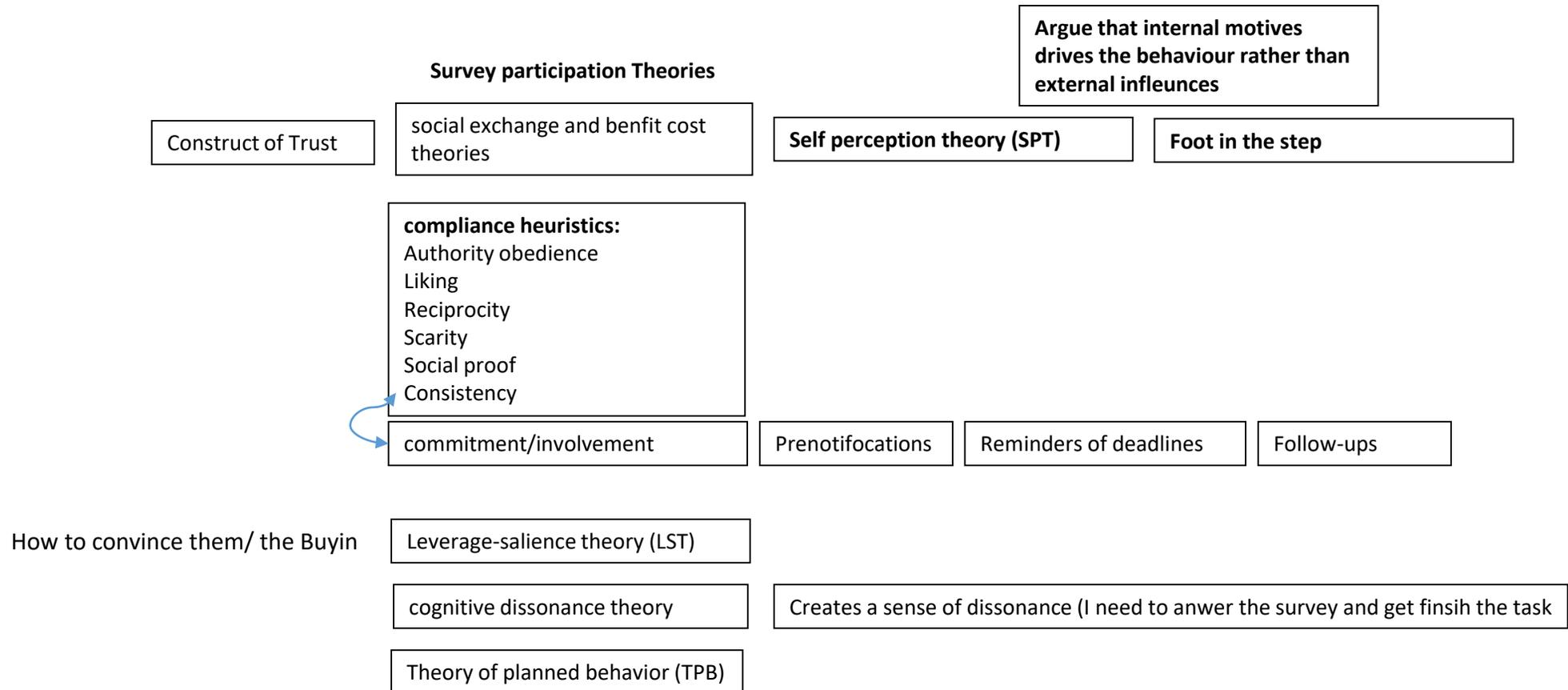
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Survey participation theories

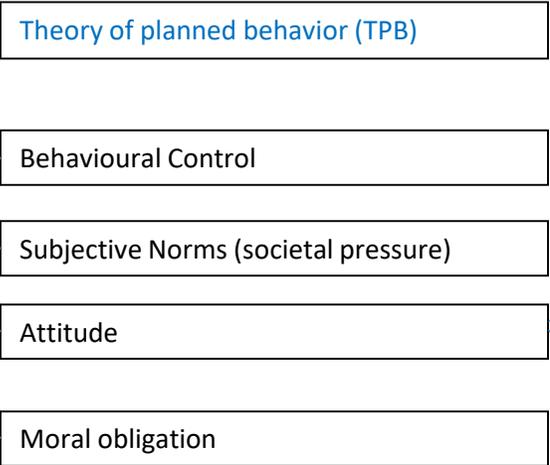
- 1) **Reciprocity** (I need to give back, and be good to others who are good to me)
- 2) **Consistency** (“Once we make a choice or take a stand, we will encounter personal and interpersonal pressure to behave consistently with that commitment”)
- 3) **social proof** (what others are doing?/ the society)
- 4) **Liking** (stress of the topic, and how to sell it to them)
- 5) **Authority** (The research institute/ the researchers)
- 6) **scarcity** (Stress that: oppurtunity is rare/ get your voice heard)



Survey participation theories

Goes well with the (Process/ Product) in the marketing theory framework

Intentions



commitment/involvement (Theory)

Behaviour beliefs

Normative beliefs

Information a person have about an object

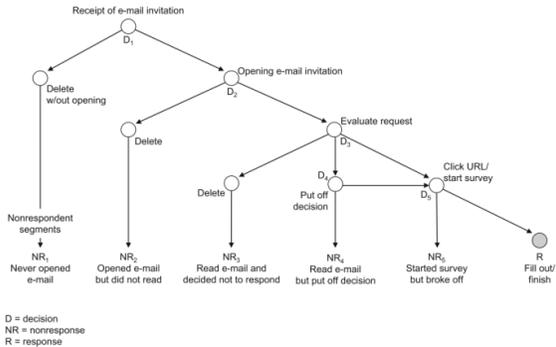


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