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# Empowering, Progressing and Sustaining Employee Health Behaviours via SMS: An Applied Study Design



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# OUTLINE

- ❖ Background
- ❖ The client brief
- ❖ Theoretical foundation
- ❖ Applying theory to inform the study design
- ❖ Methodology
- ❖ Phase Two: The trial and evaluation
- ❖ Summary and questions

# BACKGROUND

**Workplaces** can provide highly effective environments for health promotion.

**The challenge** for psychologists is to develop programs that encourage participation by the greatest number of workers including those least likely to participate.

**This presentation** will outline the development of a semi-tailored SMS nutrition and exercise behaviour change intervention for shift workers at a rural mining company.

# THE STUDY



## The Client:

Mining company in rural Australia

Employees typically work a rotating 12 hour shift roster

## The Brief:

Design a **workplace health program**

Ensure the program is **accessible** to all employees

Ensure the program is based on **scientific theory**

# THEORY: THE FOUNDATION

**Theory** provides with the primary tools to create behaviour change interventions.

**Use of theory** in behaviour change interventions is associated with larger effect sizes.

**Practical workplace health programs** have seldom referred to theory in their design.

# EMPOWERING EMPLOYEES

**To achieve behaviour change** employees must take control of the decisions affecting their own health.

**Empowerment** is the process through which individuals gain greater control over decisions and actions affecting their health.

**It is a 'bottom-up process'** whereby changes are derived in response to an individual's self determination to change.

**Empowerment is achieved** through addressing personal motivations for change.

# MEETING THE NEEDS OF MANY

**A challenge in intervention design** is designing a program that meets the needs of all employees.

**Few healthy population studies** have incorporated both theory and personalization in the intervention design.

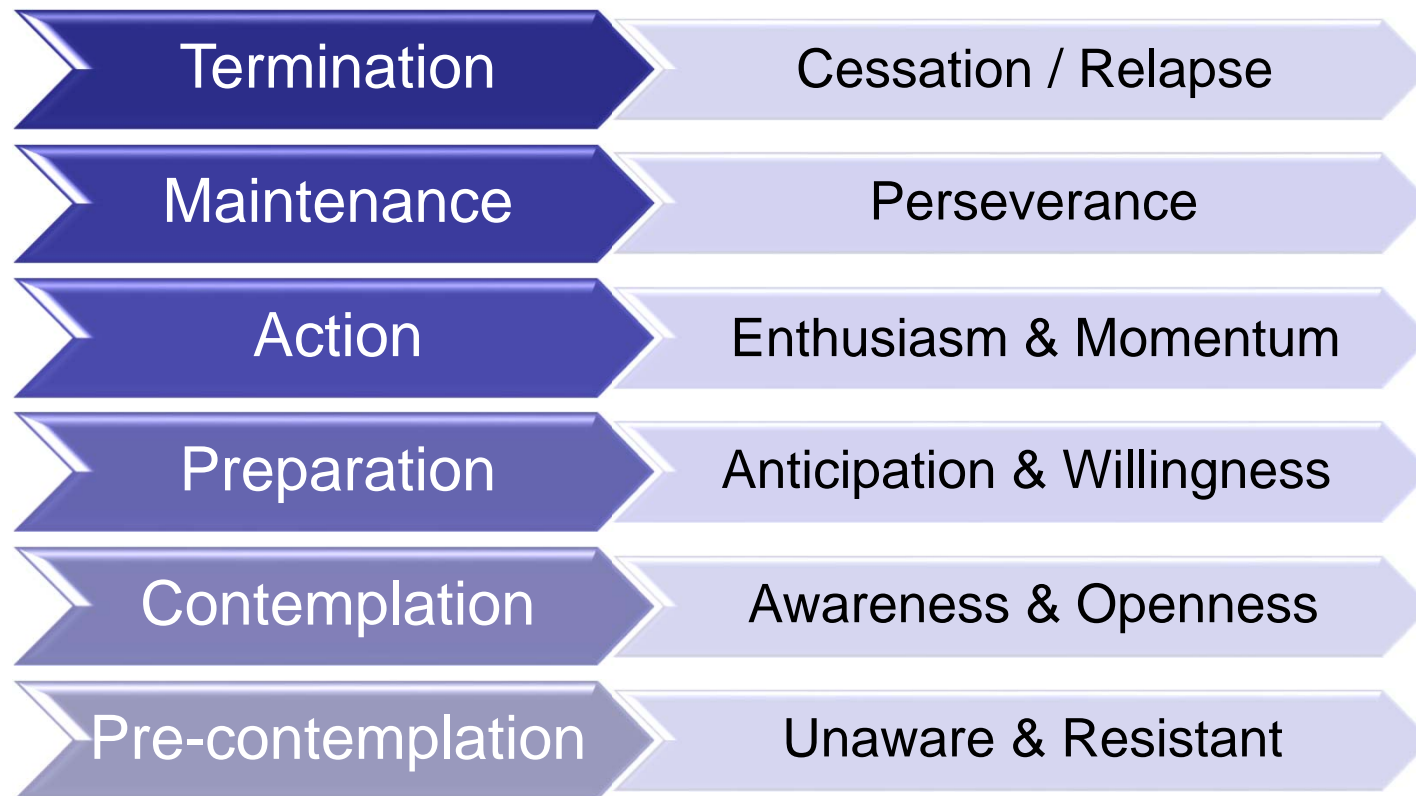
**The Stages of Change model** is one commonly employed theory.





# PROGRESSING EMPLOYEES

## The Stages of Change Model



# ENGAGING EMPLOYEES

**Mobile telephones and Short Message Service (SMS) messages** are one of the most common modes of communication.

**Capable of reaching** shift workers at odd hours.

**Cost effective** when compared to traditional interventions (e.g. boot camps and live presentations).



# SMS DEVELOPMENT



Literature Review



SMS Database Development



Modified Delphi Technique



SMS Database Pilot Test

# EXAMPLE SMS MESSAGES

**To: Mr Exercise  
Precontemplation**

**The World Health  
Organisation  
recommends 30  
mins of moderate  
exercise 5 times /  
week. That's less  
than half a game of  
rugby.**

**To: Mrs Nutrition  
Preparation**

**Frozen vegetables  
are just as healthy  
as fresh vegetables  
and a lot easier if  
you can't get to the  
shops regularly.**

**To: Mr Exercise  
Maintenance**

**If you're finding  
your workouts  
easier it might be  
time to reassess  
your goals. What  
are you striving  
for?**

# PHASE TWO: THE TRIAL

This study employs a **randomized control design**.

**The independent variable (IV)** = message configuration has been manipulated at 3 levels: semi-tailored, generic, and absent (i.e. no message).

**The dependent variables (DV)** = stage of change, exercise behaviours, and nutrition behaviours.

Exercise and nutrition behaviours will be measured in accordance with WHO (2013) guidelines.

# IMPLICATIONS



Our study may be used to further current knowledge of the role of empowerment and personalisation in changing health behaviours.

# SUMMARY

The SMS nutrition and exercise health behaviour change intervention aims to:

**Empower  
employees via  
semi-tailored  
program**

**Progress  
readiness to  
change health  
behaviour**

**Sustain  
behaviour  
change**



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