

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

Dying For A Tan:

**Explaining Intentions to Use Sunscreen with the Theory of Planned
Behaviour, Threats to Appearance and Mortality,
And the Theory of Terror Management.**

A Thesis Presented in Partial Fulfilment of the Requirements for the
Degree of Master of Arts in Psychology
At Massey University,
Palmerston North, New Zealand.

Katharine Elizabeth Mills

2003

Abstract

Skin cancer has become one of the most prevalent forms of cancer throughout the world (Arthey & Clarke, 1995), with New Zealand leading the world in both melanoma-related deaths and incidences. It has been indicated that 80 per cent of skin cancers could be avoided through appropriate sun prevention. Decreasing the amount of sun exposure has become the primary objective of skin cancer prevention. The present study applied the variables of the Theory of Planned Behaviour, specifically perceived behavioural control, subjective norm and attitudes, and the additional constructs of conscientiousness and anticipated regret to explain intentions for sunscreen use. An appearance-based intervention and a health-based intervention were investigated to assess changes in intentions to use a sunscreen. Finally, the Theory of Terror Management was examined to assess if this theory could help to explain sunscreen use. To examine the above issues three types of questionnaires (a mortality-based intervention, an appearance-based intervention and a control condition) were administered to beachgoers in New Zealand ($N=145$) and the United Kingdom ($N= 277$). The theory of planned behaviour significantly explained 53.1 per cent of participants' intentions to use a sunscreen amongst New Zealand beachgoers, and 44.9 per cent amongst British beachgoers. Specifically, raising an individual's perceived behavioural control, subjective norm and attitude towards sunscreen could be positive ways to increase sunscreen use. Furthermore, the concepts of conscientiousness and anticipated regret explained a further 14.6% and 10.9% for the New Zealand and British samples respectively. No significant results for the use of mortality and appearance-based interventions were found, and the Theory of Terror Management was not significantly found to explain sunscreen intentions. Despite various limitations, the present research has gained useful information opening the doors for future research

Acknowledgements

First and foremost I would like to extend my biggest thanks and appreciation to my supervisor, Dr. Chris Stephens. For her professional guidance and encouragement, that has been provided to me. Thank you for your patience and assistance with the statistical sides of my work, and for your time, especially in those last few weeks.

Thanks to Tessa (NZ) for all your help with the data collection. For always finding time to answer my non-stop questions throughout the year, and for always having a positive word to keep me on track. Thanks to Marta (UK) for her help in the data collection in Britain.

I would like to offer my gratitude to Kirsty Thomas for her utmost generosity in voluntarily editing my work. Thank you for your thorough and professional job, and for managing to get my work back to me **just** in the nick of time. Thank you also to Nicky for your help with the bits and pieces in the last few weeks.

Finally, I would like say a huge thank you to my family (especially my mum) and friends, for their total support over the last year, and for tolerating the stresses associated with completing this thesis. In particular, a special thank you to Trudy for your unlimited friendship and your extra support in the more difficult times of the last year, it will always be remembered.

Table of Contents

Abstract	iii
Acknowledgements.....	v
List of Tables	xi
List of Appendices.....	xiii

INTRODUCTION

Chapter 1	Concerns About Skin Cancer.....	1
Chapter 2	The Appearance of a Suntan.....	7
2.1	Attitudes regarding tanning.....	7
2.2	Empirical research.....	9
Chapter 3	Health Behaviour Models and Additional Constructs.....	13
3.1	Health Models.....	13
3.2	Empirical research.....	14
3.3	Additional Constructs Impinging on Sunscreen Use	15
Chapter 4	Mortality and Appearance-Based Interventions.....	19
4.1	Mortality Based Interventions.....	19
4.1.1	Empirical research for Mortality-Based Interventions	19
4.2	Appearance based Interventions.....	21
4.2.1	Supporting Empirical Evidence.....	22
Chapter 5	Terror Management Theory.....	25
5.1	Terror Management Theory.....	25
5.1.1	Summary of Terror Management Theory.....	28
5.2	Supporting Empirical Research.....	28

5.2.1	The Mortality Salience Hypothesis.....	28
5.2.2	Anxiety Buffer Hypothesis.....	32
5.3	Terror Management Theory and Sunscreen Use.....	34
Chapter 6	Rational for the Present Study.....	39
6.1	Overview of the Introduction	39
6.2	The Present Study.....	41
6.3	Hypotheses of the Present Study.....	43
<u>METHOD</u>		
Chapter 7	Method.....	45
7.1	Study Design.....	45
7.2	Research Setting.....	45
7.3	Participants.....	46
7.4	Procedure.....	48
7.5	The Questionnaire.....	49
7.5.1	Part One: Pre-Intervention Measures.....	49
7.5.2	Part Two: The Intervention.....	52
7.5.3	Part Three: Post-Intervention Measures.....	54
7.6	Statistical Analysis.....	56
<u>RESULTS</u>		
Chapter 8	Results.....	57
8.1	Preliminary Analysis.....	57
8.1.1	Data Management.....	57
8.1.2	Pre Intervention Descriptive Statistics.....	57
8.2	Post Intervention Results.....	60
8.2.1	Analysis of Affective Response	60
8.3	Hypothesis testing Of The NZ data.....	61
8.2.2	Hypothesis One.....	61
8.2.3	Hypothesis Two.....	62

8.2.4	Hypothesis Three.....	63
8.2.5	Hypothesis Four.....	64
8.2.6	Hypothesis Five.....	65
8.2.7	Hypothesis Six.....	66
8.2.8	Hypothesis Seven.....	67
8.3	Hypothesis Testing of the UK data.....	70
8.3.1	Hypothesis One.....	70
8.3.2	Hypothesis Two.....	71
8.3.3	Hypothesis Three.....	72
8.3.4	Hypothesis Four.....	73
8.3.5	Hypothesis five.....	73
8.3.6	Hypothesis six.....	75
8.3.7	Hypothesis Seven.....	75

DISCUSSION

Chapter 9	Discussion.....	79
9.1	Summary of the Results.....	79
9.1.1	Effects of the TPB, Conscientiousness and AR	79
9.1.2	Mortality Based Intervention.....	83
9.1.3	Appearance Based Intervention.....	84
9.1.4	Terror Management Theory.....	86
9.2	New Zealand And British Comparisons.....	88
9.3	Limitations of the Study.....	89
9.4	Implications for Future research.	92
9.5	Conclusion	93

<u>REFERENCES.....</u>	95
-------------------------------	-----------

<u>APPENDICES</u>	105
--------------------------------	------------

List Of Figures:

<u>Figure 1:</u>	Model Summarising TMT.....	29
<u>Figure 2:</u>	The TMT model adapted to explain how sunscreen use could be explained through the theory of terror management.....	37

List of Tables:

<u>Table 1:</u>	Number of participants in each condition for the UK and NZ Sample.....	47
<u>Table 2:</u>	Differences in Gender, Age and Nationality between the three conditions for the NZ and UK participants.....	47
<u>Table 3:</u>	Differences in hair colour and ease of skin burn for the NZ and UK participants in each condition.....	57
<u>Table 4:</u>	The age, nationality, gender and ease of sunburn of all participants in each condition	58
<u>Table 5:</u>	ANOVA test for Pre-Intervention Equivalence of Conditions for the UK and NZ Data	59
<u>Table 6:</u>	Pearson's r correlations between the study variables and extraneous Variables for the NZ data.....	61
<u>Table 7:</u>	Multiple regression analysis of the effects of age, gender, TPB constructs (subjective norm, attitude to sunscreen, Perceived Behavioural control) and the variables of anticipated regret and conscientiousness on intentions to use sunscreen.....	63
<u>Table 8:</u>	Pre and Post Intervention Means for Intentions to Use Sunscreen Between the Three Conditions.....	64

<u>Table 9:</u>	Comparing in Pre and Post Interventions to use Sunscreen for the Appearance and Control Interventions.....	66
<u>Table 10:</u>	Pre and Post Intervention Changes for People with Low and High Self-Esteem in the Appearance and Control Condition.....	68
<u>Table 11:</u>	Comparing Change in Intention for Participants Who Think a Tan is Important for Appearance across Mortality and Control Conditions...	69
<u>Table 12:</u>	Pearson's r correlations between the study variables and extraneous variables for the UK data.....	70
<u>Table 13:</u>	Multiple regression analysis of the effects of age, gender, TPB constructs (subjective norm, attitude to sunscreen, Perceived Behavioural control) and the variables of anticipated regret and conscientiousness on intentions to use sunscreen	72
<u>Table 14:</u>	Pre and Post Intervention Means for Intentions to Use Sunscreen Between the Three Conditions.....	73
<u>Table 15:</u>	Comparing in Pre and Post Interventions to use Sunscreen for the Appearance and Control Interventions.....	74
<u>Table 16:</u>	Pre and Post Intervention Changes for People with Low and High Self-esteem in the Appearance and Control Condition.....	76
<u>Table 17:</u>	Comparing Change in Intention for Participants Who Think a Tan is Important for Appearance across Mortality and Control Conditions ..	77

List of Appendices

<u>Appendix A:</u> Information Sheet.....	105
<u>Appendix B:</u> Feedback Request Form.....	107
<u>Appendix C:</u> Cancer Information Leaflet.....	109
<u>Appendix D:</u> Pre Intervention Questionnaire.....	111
<u>Appendix E:</u> The Interventions.....	115
<u>Appendix F:</u> Post-Intervention Questionnaires.....	131

