Battling the black dog on farm:

Sleep deprivation and stressors in agriculture

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B Psych (Hons)

This thesis is submitted in partial fulfilment of the requirements of the degree of

Doctor of Clinical Psychology

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May 2015
Statement of Originality

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to the final version of my thesis being made available worldwide when deposited in the University’s Digital Repository**, subject to the provision of the Copyright Act 1968.

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Statement of Collaboration

I hereby certify that the work embodied in this thesis has been done in collaboration with other researchers: I have included as part of the thesis a statement clearly outlining the extent of collaboration, with whom and under what auspices.

The work in this thesis was carried out under the supervision of Dr Sean Halpin and Dr Keith Harris

Acknowledgement of Authorship

I hereby certify that the work embodied in this thesis contains scholarly work of which I am a joint author. I have included as part of thesis a written statement, endorsed by my supervisor, attesting to my contribution to the joint scholarly work.

I, Andrew Wilkinson contributed to each phase of the scholarly work, including the research design, recruitment, data collection, data analysis and writing of the thesis and manuscript.

Signed: _____________________

Dated: 19th May 2015
Acknowledgements

Embarking on this thesis has been a privilege and massive learning experience. It’s hard to pick one highlight, but it would be hard to go past spending time hearing the stories of farmers at Ag-Quip Gunnedah and finding out first-hand what is on farmer’s minds.

I would like to acknowledge the contribution my supervisors Dr Keith Harris and Dr Sean Halpin and statistics consultant Nic Croce. Thank you all for taking a foray into rural mental health. I know each of you have other research interests, so thank you for your time, commitment and insights to this thesis. In particular, thank you Keith for your input from start to finish, without your thoughtfulness and vision this project would not have been a possibility.

A special thank you to my wife, Lid. You have patiently waited while the thesis ‘ball and chain’ has been carried through dating, engagement and now marriage. Your encouragement and love have inspired me to keep going through long nights and tiring days.

To Mum and Dad, thank you for giving me an opportunity to grow and live on the land. Your teamwork in farming and commitment to each other shines through. Weathering the storms of farming is no easy feat (there’s a pun for you old man).

To the farming organisations, newspapers and rural networks that distributed the survey and contributed to the project, many thanks! On a last note I am grateful to have talked to many farmers but especially one or two who were open about their faith in God during hardship. May your faith grow on the rock that does not move.

“For it is written,

‘I will destroy the wisdom of the wise and set aside the understanding of the scholars.’

So then, where does this leave the wise? Or the scholars? The skilful debaters of this world? God has shown that this world’s wisdom is foolishness!”

1 Corinthians 1: 19-20
Abstract

Scope: Farmers have been identified as a rural group with a high threshold for stress, and are renowned for their resilience in adversity. However the mental health of farmers has become an area of concern, due to an elevated risk of suicide in comparison to the general population. The physical and mental demands of farming can influence sleep, stress and depression. Most farming mental health literature presents farmers as a homogenous group, even though farming is a diverse industry. There remains a significant gap in literature evaluating what unique stressors farmers may experience in relation to work-related pressures and various types of farming. Numerous risk factors are linked with farmer psychiatric morbidity but little is known about the role of sleep deprivation in farmer distress or how mental health may differ by farming type.

Purpose: This thesis presents a critical review of the literature on stress and distress in farming. This review summarises recent knowledge around risk and protective factors for distress in farmers, and identifies areas of need for further research. The thesis than presents a manuscript reporting an original research study that aimed to evaluate farmer’s experiences of stress and depression. This study considered the role of sleep deprivation along with other key risk factors for farmer stress and depression. Sleep deprivation had not been examined with psycho-social and work related demands in previous Australian farming literature. This current study also aimed to improve upon previous studies that tended to consider farmers as a homogenous group, by investigating variations in farmer well-being associated with types of farming enterprises.

Methodology: A sample of 148 farmers completed an online survey targeted at participants in NSW, Victoria and Queensland. Participants completed self-report measures of psychological distress, general health, satisfaction with life, farming stress, social support, sleep deprivation and demographics. This study was advertised to farmers through key
farming organisations, an agricultural field day and media outlets. Multiple regression analyses examined key predictor variables for stress and depression. The Kruskal Wallis Test and Mann Whitney U post hoc analysis explored between group differences for farmer type.

**Results:** Insomnia, finance, isolation and general health accounted for 50% variance in predicting stress. General health, sleep dysfunction, satisfaction with life and friends (social support) accounted for 59% of the variance in predicting depression. Sleep deprivation ranked more prominently than social support and work related factors for farmer stress and depression. Mann Whitney U post hoc analysis results demonstrated that Beef Farmers experienced significantly higher levels of insomnia and sleep disturbance than Cropping Farmers. Beef farmers were also less hopeful about their future in farming and Australia’s when compared with Cropping Farmers. An ‘Other’ group of farmers, predominantly involving small, intensive agricultural industries indicated higher levels of time pressure than Beef and Cropping Farmers.

**General Conclusions:** Work related stressors, finance and isolation were key predictors of psychological stress. However sleep deprivation, was an even stronger predictor of psychological stress than other study variables. The main predictors of depression were psychological attributes such as satisfaction with life and general health factors that included diminished confidence and social dysfunction. Sleep deprivation was also a key predictor of depression. These findings suggest that health professionals should provide targeted treatments for sleep deprivation in farmers.

These findings also suggest that future research must acknowledge the heterogeneity of farming groups when investigating work related factors, financial pressures and mental health outcomes. Future treatment approaches could also adapt more efficiently to farmer distress, by flexibly responding to the unique pressures in different farming sectors with specialised clinical assessment and treatment intervention. In particular, greater holistic assessment is
required, including screening by front-line mental health providers for sleep quality, stress and depression. Treatment for farmers with mental health difficulties may require psycho-education specifically targeting sleep hygiene.
# Table of Contents

Statement of Originality .............................................................................................................. i

Acknowledgements .................................................................................................................... iii

Abstract........................................................................................................................................ iv

Table of Contents .......................................................................................................................... vii

Critical Literature Review ............................................................................................................. 1

Stress and distress in farming ....................................................................................................... 2

Biological sex ............................................................................................................................... 3

Self-report measures ..................................................................................................................... 5

Help seeking .................................................................................................................................. 7

Risk factors for psychological distress in farming ................................................................. 8

Social dysfunction ......................................................................................................................... 8

Psychological risk ......................................................................................................................... 10

Work related pressures ............................................................................................................... 12

Sleep problems ............................................................................................................................ 17

Protective factors for psychological distress in farming ............................................................. 20

Resilience ...................................................................................................................................... 20

Community support ..................................................................................................................... 21

Limitations of existing research ................................................................................................. 23

Conclusion ..................................................................................................................................... 24

Manuscript ..................................................................................................................................... 25
Abstract........................................................................................................................................26

1. Introduction................................................................................................................................27

2. Method ........................................................................................................................................33
   2.1 Participants.................................................................................................................................33
   2.2 Measures..................................................................................................................................33
      2.2.1 Depression Anxiety Stress Scale .........................................................................................33
      2.2.2 Edinburgh Farmer Stress Inventory ....................................................................................34
      2.2.3 Insomnia Severity Index .....................................................................................................34
      2.2.4 Multidimensional Scale of Perceived Social Support ..........................................................34
      2.2.5 Pittsburgh Sleep Quality Index ............................................................................................35
      2.2.6 General Health Questionnaire ............................................................................................35
      2.2.7 Satisfaction with Life Scale ..................................................................................................35
   2.4 Data Analysis............................................................................................................................35

3. Results ..........................................................................................................................................36
   3.1 Descriptive Statistics..................................................................................................................36
      Table 1 ..........................................................................................................................................38
   3.2 Farm Stress.................................................................................................................................39
      Table 2 ..........................................................................................................................................39
   3.3 Analysis 1: Correlations..............................................................................................................39
      Table 3 ..........................................................................................................................................41
   3.4 Analysis 2: Regression modelling for stress ..............................................................................42
Table 4 ........................................................................................................... 43

3.5 Analysis 3: Regression modelling for depression........................................... 43

Table 5 ........................................................................................................... 44

3.6 Analysis 4: Kruskal Wallis Test and Mann Whitney U post hoc analysis .......... 44

Table 6 ........................................................................................................... 46

4. Discussion ..................................................................................................... 47

4.1 Limitations ................................................................................................. 52

4.2 Implications................................................................................................. 53

5. Conclusion .................................................................................................... 54

References ....................................................................................................... 55

Extended Discussion .......................................................................................... 62

Stress depression continuum............................................................................. 62

The impact of sleep deprivation on farmer’s distress........................................ 65

The impact of financial problems on farmer distress........................................ 67

The impact of isolation and social support on farmer distress........................ 69

The importance of acknowledging farmer’s heterogeneity ............................... 71

Figure 1 ........................................................................................................... 72

Figure 2 ........................................................................................................... 74

Strengths and Limitations ............................................................................... 74

Implications..................................................................................................... 76

Conclusion ..................................................................................................... 79
References .................................................................................................................................................. 82

Appendix A: Ethics Approval .................................................................................................................. 94

Appendix B: Information sheet and exit page .......................................................................................... 98

Appendix C: Recruitment Flyer ............................................................................................................... 102

Appendix D: Beyondblue funding approval ............................................................................................ 104

Appendix E: Participant Questionnaire ................................................................................................. 106