SCHOOLING THE BLUES? AN INVESTIGATION OF FACTORS ASSOCIATED WITH PSYCHOLOGICAL DISTRESS AMONG LAW STUDENTS

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I INTRODUCTION

There is now a growing body of empirical evidence confirming that lawyers and law students in Australia, as in the United States ('US'), experience levels of psychological distress significantly higher than members of the general population and other professions.[1] The landmark 2009 study by the Brain and Mind Research Institute ('BMRI'), published as 'Courting the Blues',[2] was not the first Australian study to investigate this issue, but it was perhaps the first to

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1 For excellent reviews of the Australian and US research on psychological distress among lawyers and law students, see Massimiliano Tani and Prue Vines, 'Law Students' Attitudes to Education: Pointers to Depression in the Legal Academy and the Profession?' (2009) 19 *Legal Education Review* 3; Penelope Watson and Rachael Field, 'Promoting Student Well-Being and Resilience at Law School' in Sally Kift et al (eds), *Excellence and Innovation in Legal Education* (LexisNexis, 2011) ch 15. See also, Molly Townes O'Brien, Stephen Tang and Kath Hall, 'Changing Our Thinking: Empirical Thinking on Law Student Wellbeing, Thinking Styles and the Law Curriculum' (2011) 21 *Legal Education Review* 149; Anthony Lester, Lloyd England and Natalia Antolak-Saper, 'Health and Wellbeing in the First Year: The Law School Experience' (2011) 36 *Alternative Law Journal* 47; Wendy Larcombe et al, 'Does an Improved Experience of Law School Protect Students against Depression, Anxiety and Stress? An Empirical Study of Wellbeing and the Law School Experience of LLB and JD Students' (2013) 35 *Sydney Law Review* 407.

2 Norm Kelk et al, 'Courting the Blues: Attitudes towards Depression in Australian Law Students and Lawyers' (Monograph 2009-1, Brain & Mind Research Institute, University of Sydney, January 2009) <http://sydney.edu.au/bmri/research/mental-health-clinical-translational-programs/lawreport.pdf > ('Courting the Blues').

be heard as an alarm bell by legal professional bodies and law schools.[3] The BMRI study reported that, on an internationally recognised measure, 31 per cent of solicitors, 17 per cent of barristers and 35 per cent of law students recorded elevated levels of psychological distress compared with 13 per cent of the general population.[4] Subsequent studies with law students at the Australian National University and the University of Melbourne have produced very similar findings: both studies report that approximately 30 per cent of participating law students recorded elevated anxiety symptoms and a similar proportion recorded elevated depressive symptoms, compared with 13 per cent of the general population.[5]

As Townes O'Brien and her co-authors have observed, the BMRI report 'hit Australian legal educators hard',[6] particularly as the decline in mental health appears to begin in law schools. Students are known to enter law schools with rates of wellbeing no different to, and even higher than, the general population.[7] By the end of the first year of study in law, however, self-reported rates of psychological distress have increased significantly.[8] The negative impact of legal education on first-year law students does not appear to abate across the degree, and distress levels are similar in legal practice, indicating that the nature and quality of the psychological distress experienced by law students and lawyers may be 'fundamentally similar'.[9] Law school thus appears to be an ideal site to develop and embed prevention and early intervention measures to address mental health difficulties that similarly affect law students and legal practitioners.

The first step to designing effective and sustainable interventions is to better understand what happens to law students' mental wellbeing in law school and the range of factors associated with high levels of distress. In particular, it is important for law schools to know whether it is legal education per se that triggers or exacerbates law student distress, or whether some interaction of 'external' sources of distress and personal characteristics mediates students' responses to the law school environment. As explained below, Self-

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3 Eg, the BMRI report was a catalyst for the development of Resilience@law: see College of Law, *Resilience@law* (2012) <http://www.collaw.edu.au/about-us/education-philosophy/resiliencelaw/>; and the recently adopted *Best Practice Guidelines*: Council of Australian Law Deans, *Promoting Law Student Well-Being: Best Practice Guidelines for Law Schools* (March 2013) <http://www.cald.asn.au/assets/lists/Resources/Promoting%20Law%20Student%20Well-Being%20Good%20Practice%20Guidelines%20for%20Law%20Schools.pdf>.

4 The Kessler-10 or K10 scale was used in the BMRI study. For results, see Kelk et al, above n 2, 10–12.

5 That is, within moderate–extremely severe categories assessed on the Depression Anxiety and Stress Scales (DASS-21): see Townes O'Brien, Tang and Hall, above n 1, 160; Larcombe et al, above n 1, 416.

6 Townes O'Brien, Tang and Hall, above n 1, 149.

7 Ibid 161.

8 Ibid. See also G Andrew H Benjamin et al, 'The Role of Legal Education in Producing Psychological Distress Among Law Students and Lawyers' (1986) 11 *Law & Social Inquiry* 225; Kennon M Sheldon and Lawrence S Krieger, 'Does Legal Education Have Undermining Effects on Law Students? Evaluating Changes in Motivation, Values, and Well-Being' (2004) 22 *Behavioral Sciences and the Law* 261 ('Changes in Motivation').

9 Lawrence S Krieger, 'What We're Not Telling Law Students – And Lawyers – That They Really Need to Know: Some Thoughts-in-Action toward Revitalizing the Profession from Its Roots' (1998) 13 *Journal of Law and Health* 1, 1 n 1.

Determination Theory ('SDT') provides the most promising explanation of the environmental variables contributing to the documented increase in psychological distress experienced by first-year law students. However, more research is needed. Although law student mental wellbeing has been recognised as an issue for some decades in the US, and there is now ample evidence of the prevalence of distress among law students, there has been limited empirical research investigating course-related and institutional factors that may be contributing to high levels of psychological distress among law students.[10] Without an improved understanding of the factors that adversely affect law student mental health, law schools could invest considerable effort in interventions that have little prospect of improving students' wellbeing.[11]

It was in this context that the present study was designed to empirically investigate factors associated with high levels of psychological distress among a sample of Australian law students. An anonymous online survey was developed to explore a range of course-related variables that have been suggested in the research literature as potentially associated with law student psychological distress.[12] The study also investigated some of the personal tendencies attributed to law students, as well as the stresses associated with the costs of higher education and an increasingly competitive job market. The study was undertaken in 2012 with a sample of law students from Melbourne Law School ('MLS'), the University of Melbourne. This article reports the findings of that research, including the levels and forms of psychological distress recorded and the factors associated with elevated symptoms of depression, anxiety and stress. In doing so, it aims to provide a source of comparative data for subsequent empirical studies examining students' elevated levels of mental distress in higher education, as well as contributing to an evidence-base for pedagogical development, curriculum reform and mental health intervention planning in law schools.

Three general findings are noteworthy. First, all of the participant-related and course-related variables included in the study showed significant associations

10 Noted exceptions here include Townes O'Brien, Tang and Hall, above n 1; Sheldon and Krieger, above n 8; Kennon M Sheldon and Lawrence S Krieger, 'Understanding the Negative Effects of Legal Education on Law Students: A Longitudinal Test of Self-Determination Theory' (2007) 33 *Personality and Social Psychology Bulletin* 833 ('Negative Effects of Legal Education'); Elizabeth Mertz, *The Language of Law School: Learning to "Think Like a Lawyer"* (Oxford University Press, 2007).

11 Matthew M Dammeyer and Narina Nunez, 'Anxiety and Depression among Law Students: Current Knowledge and Future Directions' (1999) 23 *Law and Human Behavior* 55, 72. It can be noted that the number of curricular and co-curricular initiatives to promote student mental wellbeing in law schools has blossomed over the past five years. Programs and workshops in resilience, 'vitality', self-management, reflection, peer engagement and positive professional identities have been implemented in a range of legal education settings. Anecdotal evidence of the effectiveness and popularity of these programs with students is available. However, many have not been formally assessed and it is unclear whether such initiatives are reaching and benefiting the students who need them most. Larcombe et al indicate that such programs may not benefit student mental health, even when they have other benefits for students: Larcombe et al, above n 1. Better evidence is currently needed about the effectiveness of wellbeing interventions to address law student distress.

12 These factors include peer engagement, satisfaction with course choice and experience, and perceived autonomy support, as explained below.

with elevated distress symptoms. By contrast, the only demographic variables that showed significant associations with elevated distress related to time commitments (paid work and family care). This strongly indicates that law student distress is mediated by students' experiences, perceptions and cognitive constructs (as they interact with the law school environment), rather than by demographic variables. Second, different participant-related and course-related variables were found to be associated with the different *forms* of distress symptoms measured in the study – depression, anxiety and stress. Interventions to support student wellbeing will thus need to address the different forms of distress and their associated factors. Third, different variables were associated with different *levels* of distress symptoms, indicating that severe and extremely severe levels of distress have distinct triggers or risk associations. This is important information, indicating that programs and interventions tailored for the different forms and levels of distress measured in this study are likely to be most effective.

The article is organised as follows. Part II outlines the available empirical research and explanations of law student distress that informed the present research and Part III details the methods used in the 2012 study conducted at MLS. Results on levels of psychological distress (Part IV) and the few associated demographic factors (Part V) are then reported. Parts VI–VIII report the results of tests investigating associations between the non-demographic variables in the study (participant- and course-related factors) and elevated depressive, anxiety and stress symptoms, respectively. Finally, we discuss the implications of these findings for the planning of mental health initiatives in law schools and offer suggestions for further research (Part IX).

II UNDERSTANDING LAW STUDENT PSYCHOLOGICAL DISTRESS

Empirical research to date has identified that the observed increase of psychological distress amongst law students is associated with a decrease in experiential thinking;[13] an increase in extrinsic motivations and values;[14] and a reduction in students' experiences of autonomy, competence and relatedness.[15] It does not appear to be directly associated with the type and level of law course – for example, undergraduate entry LLB degree, or postgraduate entry JD degree.[16]

13 Townes O'Brien, Tang and Hall, above n 1, 163.

14 Sheldon and Krieger, 'Changes in Motivation', above n 8, 264.

15 Sheldon and Krieger, 'Negative Effects of Legal Education', above n 10, 885.

16 Larcombe et al reported research conducted at the University of Melbourne in 2011 that found there were no significant differences in the reported distress levels of two distinct cohorts of law students (LLB and JD students), although the two groups recorded significantly different perceptions of their law school experience and course satisfaction: Larcombe et al, above n 1.

However, 'controlling' law schools may have greater negative impacts on students' mental wellbeing than schools that are 'autonomy supportive'.[17]

The concept of 'autonomy supportive' social environments is a key element of SDT[18] – the best available explanatory model of law student distress. SDT posits that all people thrive in environments that meet basic human needs for regular experiences of autonomy, competence and relatedness to others. Those three basic psychological needs are more likely to be met when people act in pursuance of internalised goals – that is, when they are 'autonomously motivated' or feel that their actions are not only self-chosen, but also self-concordant or self-actualising.[19] In turn, people are more likely to act on the basis of internalised goals when their social and interpersonal environment is 'autonomy supportive'.[20] Competence support and relationship support are also key elements of healthy environments as the three basic needs are additive: 'an individual is best off when all three are present [in the social environment], and worst off with none present.'[21] However, SDT research has often focused on autonomy support as its designation as a 'basic need' can be controversial[22] – in part because 'autonomy' has a particular meaning within SDT.

As Kennon Sheldon et al explain, SDT conceptualises autonomy as 'the freedom to behave in accordance with one's sense of self';[23] it is not merely Western individualism or freedom of choice – and certainly not consumer choice where the options are fundamentally similar.[24] Lawrence Krieger describes it as authenticity, or the need to act authentically – that is, to act in accordance with one's values and evolving interests.[25] Understandably, 'felt autonomy', meaning the perception that one's actions are authentic, 'is to some extent a dispositional variable' – a result of the 'individual's characteristic way of relating to his/her

17 Sheldon and Krieger, 'Negative Effects of Legal Education', above n 10, 890. This study compared two different types of law schools. The teaching-focused school saw a smaller drop in first-year students' subjective wellbeing than that observed at the research-intensive law school.

18 See especially Richard M Ryan and Edward L Deci, 'Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being' (2000) 55 *American Psychologist* 68.

19 Kennon M Sheldon et al, 'Applying Self-Determination Theory to Organizational Research' (2003) 22 *Research in Personnel and Human Resources Management* 357, 362, 366–8 ('Applying SDT'); Kennon M Sheldon, 'The Self-Concordance Model of Healthy Goal Striving: When Personal Goals Correctly Represent the Person' in Edward L Deci and Richard M Ryan (eds), *Handbook of Self-Determination Research* (University of Rochester Press, 2004) 65, 70–4 ('Self-Concordance').

20 Sheldon et al, 'Applying SDT', above n 19, 369–70.

21 Vincent F Filak and Kennon M Sheldon, 'Student Psychological Need Satisfaction and College Teacher–Course Evaluations' (2003) 23 *Educational Psychology* 235, 237 ('Student Need Satisfaction').

22 Sheldon et al, 'Applying SDT', above n 19, 367.

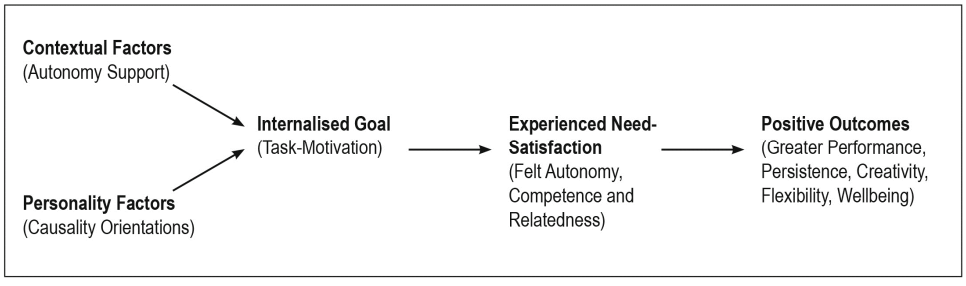
23 Ibid 366.

24 Autonomy or self-concordant action is a universal (trans-cultural) psychological need, although the ways it is expressed and satisfied may vary between individuals, cultures or age groups: ibid 366–7. On this point, see also Kennon M Sheldon et al, 'What Is Satisfying about Satisfying Events? Testing 10 Candidate Psychological Needs' (2001) 80 *Journal of Personality and Social Psychology* 325.

25 Lawrence S Krieger, 'Human Nature as a New Guiding Philosophy for Legal Education and the Profession' (2008) 47 *Washburn Law Journal* 247, 253–4 ('Human Nature').

own choices and outcomes.'[26] SDT research has established, however, that all individuals experience improved motivation and wellbeing in autonomy-supportive social and interpersonal environments – and vice versa.[27] SDT thus affords an integrated model of dispositional and situational/environmental influences on motivation and need satisfaction, with consequent impacts on learning, performance and subjective wellbeing.[28] SDT's integrated causal-process model is represented in Figure 1.

Figure 1: SDT's General Causal-Process Model



Source: Kennon M Sheldon et al, 'Applying Self-Determination Theory to Organizational Research' (2003) 22 *Research in Personnel and Human Resources Management* 357, 368 (Figure 2).

SDT research indicates that subjective wellbeing and other positive outcomes increase as the autonomy-supportive qualities of social contexts are improved. Sheldon et al explain that, in any social or interpersonal environment but particularly those in which one group is attempting to influence or direct the behaviour of others, such as educational contexts, 'autonomy support' has three key components: 'taking the [directed] person's perspective upon the situation, giving as much choice as possible, and providing a meaningful rationale when choice-provision is not possible'.[29] Autonomy-supportive social contexts can be contrasted with 'controlling' environments in which intrinsic motivations are undermined as those being directed come to feel that their actions are controlled by others rather than self-chosen or authentic.

Krieger has independently explored the ways in which law schools may unwittingly create and perpetuate controlling environments in which students feel that their autonomy is not recognised or valued.[30] He posits that law schools' typically competitive culture and the win/lose nature of the legal adversarial paradigm undermine students' internalised motivations and goals in favour of

26 Sheldon et al, 'Applying SDT', above n 19, 360. Within SDT, the dispositional variable is conceptualised as Perceived Locus of Causality (cf perceived locus of control) indicating a person's Causality Orientation: Sheldon et al, 'Applying SDT', above n 19, 365.

27 Ibid 369.

28 Ibid 370.

29 Ibid 367.

30 Krieger, 'Human Nature', above n 25, 272–84.

external rewards and measures of success. Personal values and emotions are similarly undermined by the emphasis accorded to objectivity and neutrality in legal analysis and reasoning.[31] Others consider the process of learning to 'think like a lawyer' to be inherently pessimistic and suggest it is this feature of legal education that distances students from their moral values and the social justice aspirations that often motivated their decision to study law.[32] Both explanations fit the SDT model, which predicts that people's task motivation, need satisfaction and subjective wellbeing will be undermined in social environments that do not support people's sense of autonomous/authentic action – that is, one that undermines intrinsic task motivation by distancing people from their deep values and evolving interests.

Many of the programs and interventions developed or suggested to improve law student wellbeing in Australia have been informed by SDT insights and its understanding of basic human needs. Hence, programs have sought to create enhanced opportunities for students to experience competence, relatedness and autonomy by: focusing on the teaching and acquisition of threshold skills and concepts; provision of timely academic skills support for underperforming students;[33] use of varied assessment forms and increased opportunities to obtain feedback;[34] promoting peer engagement and collaboration rather than competition between students;[35] fostering social justice goals and student participation in pro bono work to reinforce community service values and positive professional identities;[36] and providing programs that teach a range of life skills and self/stress-management within and alongside the formal curriculum.[37] The effectiveness of these approaches in reducing law student

31 Ibid.

32 Martin E P Seligman, Paul R Verkuil and Terry H Kang, 'Why Lawyers Are Unhappy' (2005) 10 *Deakin Law Review* 49; Mertz, above n 10.

33 See, eg, Julian Webb, 'Threshold Concepts: A New Tool for Learning Law?' (Directions in Legal Education, UK Centre for Legal Education, Autumn 2008) <http://www.ukcle.ac.uk/files/downloads/563/174.82d91158.autumn08.pdf> 10–11; Aiden Ricketts, 'Threshold Concepts in Legal Education' (2006) 26(2) *Directions: Journal of Educational Studies* 2; Wendy Larcombe and Ian Malkin, 'The JD First Year Experience: Design Issues and Strategies' (2011) 21 *Legal Education Review* 1.

34 See, eg, Rachael Field and Sally Kift, 'Addressing the High Levels of Psychological Distress in Law Students through Intentional Assessment and Feedback Design in the First Year Law Curriculum' (2010) 1(1) *International Journal of the First Year in Higher Education* 65.

35 See, eg, Watson and Field, above n 1; Helen Stallman, 'A Qualitative Evaluation of Perceptions of the Role of Competition in the Success and Distress of Law Students' (2012) 31 *Higher Education Research & Development* 891; Dominic Fitzsimmons, Simon Kozlina and Prue Vines, 'Optimising the First Year Experience in Law: The Law Peer Tutor Program at the University of New South Wales' (2006) 16 *Legal Education Review* 99; Larcombe and Malkin, above n 33.

36 See, eg, Kath Hall, Molly Townes O'Brien and Stephen Tang, 'Developing a Professional Identity in Law Schools: A View from Australia' (2010) 4 *Phoenix Law Review* 21; Nick James and Rachael Field, *The New Lawyer* (John Wiley, 2013) (see especially ch 12, 'Being Committed to Justice').

37 See, eg, Anna Huggins, 'The Threshold Learning Outcome on Self-Management for the Bachelor of Laws Degree: A Proposed Focus for Teaching Strategies in the First Year Law Curriculum' (2011) 2(2) *International Journal of the First Year in Higher Education* 23; Judith Marychurch, 'Good Practice Guide: Threshold Learning Outcome 6: Self-Management' (Working Paper, Australian Learning and Teaching Council, 30 September 2011) <http://www.tjmf.org.au/wp-content/uploads/2011/10/Marychurch_Good_Practice_Guide_TLO6.pdf>.

psychological distress has not yet been empirically tested. They may not, however, address *all* the factors contributing to law student distress.

While SDT and its conceptualisation of autonomy support provides a powerful account of the environmental factors that may contribute to observed declines in law student wellbeing, its theorisation of relevant dispositional factors is less developed. Research into the 'lawyer's personality' or the specific dispositional and personality attributes found in people attracted to legal study and practice may provide insight into additional factors contributing to poor mental health in the legal profession and law schools.[38] Susan Daicoff's work is particularly noteworthy in this context. Her comprehensive review published in 1997 of extant research on personality attributes of those attracted to law identified that law students often lack firm career plans – they more often enter law school as a way of continuing their academic interests and from a desire for intellectual stimulation rather than from a desire to enter a service profession, to help others or to address social issues.[39] Moreover, law students are commonly 'Thinking' rather than 'Feeling' types on the Myers–Briggs scale;[40] first-born or only children;[41] and they commonly present as socially confident, leadership-oriented, competitive and ebullient.[42]

Studies have consistently shown that law students and lawyers are also more likely to be motivated by achievement rather than altruism.[43] Subsequent to Daicoff's review, a Canadian study found that law students differed significantly from medical students on measures of driven behaviour, achievement ethic and relaxation potential – that is, when compared with medical students, law students were found to have a significantly lower capacity for healthy diversion from work, a higher investment in 'constant tangible accomplishment',[44] and a strong drive for 'new achievement rather than consolidating and enjoying previous accomplishments.'[45] This supports Daicoff's supposition that law students' strong achievement-orientation may underpin their workaholism and perfectionism – maladaptive strategies designed to meet unrealistic needs for continual accomplishment.[46] Increasing levels of paranoia and concern about comparisons with others (interpersonal sensitivity) in law students may also be associated with the problems that arise from an achievement-orientation in an environment in which most law students

38 Note that these accounts do not disturb, but can contribute to, the SDT model represented in Figure 1 above, by providing insight into relevant 'personality factors'.

39 Susan Daicoff, 'Lawyer, Know Thyself: A Review of Empirical Research on Attorney Attributes Bearing on Professionalism' (1997) 46 *The American University Law Review* 1337, 1358–9.

40 Ibid 1372.

41 Ibid 1368.

42 Ibid 1372.

43 Ibid 1373.

44 Karin F Helmers et al, 'Stress and Depressed Mood in Medical Students, Law Students, and Graduate Students at McGill University' (1997) 72 *Academic Medicine* 708, 709.

45 Ibid.

46 Daicoff, above n 39, 1418–19.

will in fact be 'average'.[47] As Krieger notes, 'law students often manifest extreme concern over how they may appear to or compare with others'[48] such that their actions and choices are often driven by maladaptive 'performance-esteem' (perfectionism) or 'other-esteem' (comparisons with others) rather than motivations that might found 'genuine self-esteem'.[49]

Finally, in considering the factors that might be associated with law student mental wellbeing, it is important to take note of recent research identifying high and perhaps increasing levels of psychological distress among university student populations generally,[50] and the noted correlation between students' psychological distress and perceived financial stress (rather than actual debt levels).[51] Uncertain employment prospects have also been identified as a likely contributor explaining elevated stress levels among university students in Hong Kong.[52] In the current economic environment in Australia, with increasing numbers of law graduates seeking to enter the legal services marketplace each year, further research is needed to ascertain whether worries about future employment prospects and current financial stresses are significantly contributing to law student distress.[53]

In summary, then, the research literature suggests that elevated levels of psychological distress amongst law students may be associated with: 'environmental' factors in law schools – course design, competitive culture, lack of autonomy support and so on; the distinct personality attributes of those attracted to study and practice law; and general stressors that particularly affect young people, including financial stress and uncertain job prospects.

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47 Ibid 1377, 1418.

48 Krieger, above n 9, 13.

49 Ibid.

50 See, eg, Ozgur Erdur-Baker et al, 'Nature and Severity of College Students' Psychological Concerns: A Comparison of Clinical and Nonclinical National Samples' (2006) 37 *Professional Psychology: Research and Practice* 317; Bernice Andrews and John M Wilding, 'The Relation of Depression and Anxiety to Life-Stress and Achievements in Students' (2004) 95 *British Journal of Psychology* 509; Helen M Stallman, 'Psychological Distress in University Students: A Comparison with General Population Data' (2010) 45 *Australian Psychologist* 249.

51 See, eg, Daniel Eisenberg et al, 'Prevalence and Correlates of Depression, Anxiety and Suicidality among University Students' (2007) 77 *American Journal of Orthopsychiatry* 534; Sarah Ross, Jennifer Cleland and Mary Joan Macleod, 'Stress, Debt and Undergraduate Medical Student Performance' (2006) 40 *Medical Education* 584; Andrews and Wilding, above n 50; David Said, Kypros Kypri and Jenny Bowman, 'Risk Factors for Mental Disorder Among University Students in Australia: Findings From a Web-Based Cross-Sectional Survey' (2013) 48 *Social Psychiatry and Psychiatric Epidemiology* 935; Stallman, above n 50.

52 Josephine G W S Wong et al, 'Web-Based Survey of Depression, Anxiety and Stress in First-Year Tertiary Education Students in Hong Kong' (2006) 40 *Australian and New Zealand Journal of Psychiatry* 777. It can be noted that the DASS anxiety scores recorded by students in this survey were even higher than those reported in the present study: at 778.

53 Note, however, that Krieger was sceptical of this factor: Krieger, above n 9, 6. He notes that law student distress has been consistently high even in times of strong economic growth and low unemployment.

III METHODS

A Participants and Design

The present study aimed to test empirically whether the variables suggested by the literature – environmental factors, personality or demographic characteristics and general stressors – were associated with elevated levels of psychological distress in a sample of Australian law students. The study employed a cross-sectional web-based survey of students currently enrolled in admission-to-practice law programs at MLS, an established and highly respected Australian law school. Ethics approval was granted by the relevant human research ethics committee, and the survey was administered in weeks two to four of second semester, 30 July – 17 August 2012.[54] This timing meant that even first-year law students at MLS would have generally completed at least four compulsory law subjects/units.[55] The timing also meant that the administration of the survey did not coincide with summative assessment tasks. Eligible students were invited to participate through advertising in student newsletters, and two emails from the MLS Dean invited participation and provided a hyperlink to the survey website. As an incentive, participants could elect to enter a prize draw to be eligible to win one of 10 $150 book vouchers. Information about counselling and support services available to students experiencing psychological distress was provided on the survey website and in all publicity materials. To ensure that participation in the survey did not itself contribute to distress, no survey items were compulsory, other than the consent question.[56]

Three hundred and twenty-one students commenced the survey and completed all questions for at least one of the DASS-21 scales (described below) and at least 75 per cent of the survey questions overall. This sample represented 46 per cent of eligible MLS students. As in similar surveys, the proportion of women among respondents (66 per cent) was significantly higher (p <0.001) than that of the study population (53 per cent).[57] In other respects, the MLS population was well proportionally represented by the survey

54 The University of Melbourne, Human Research Ethics Committee Project no 1238139. Again, we would like to acknowledge and thank Professor Carolyn Evans, Professor Ian Malkin, Ms Kate Van Hooft, Mr George Kontis and Mr Patrick Easton for their generous assistance with the administration of the survey.

55 MLS has not offered entry to its heritage Bachelor of Laws ('LLB') program since 2008, so all LLB participants in the survey were in their final year of study and classified for the purposes of analysis as 'third year or later'. All first- and second-year law students in the study were Juris Doctor ('JD') students. JD students comprised 93 per cent of the survey sample and LLB participants seven per cent – consistent with the respective 2012 enrollments in the two MLS programs. There were no significant differences in the DASS-21 scores of LLB and JD students and no significant differences in the DASS-21 scores of respondents according to year level. Hence, no distinctions are made between JD and LLB students in the results reported in this article.

56 That is, the website allowed respondents to skip a question if they did not want to answer it.

57 For example, in the study reported in Wong et al, above n 52, 63 per cent of the respondents were female; in the study reported by Stallman, above n 50, 65 per cent of respondents were female; in the study reported by Said, Kypri and Bowman, above n 51, 66 per cent of respondents were female.

participants, based on MLS enrolment data. The demographic characteristics of the participants are presented in Table 1.

Table 1: Demographic characteristics of survey participants

Demographic characteristic	Count *N* = 321	% of valid responses
Gender		
Female	203	65
Male	107	35
Missing data	11	
Age		
19-24	233	74
25 years and older	80	26
Missing data	8	
Nationality		
Australian	288	93
International	22	7
Missing data	11	
Fee type		
Commonwealth Supported Place	165	53
Full fee	146	47
Missing data	10	
Year level		
1st year	163	52
2nd year	91	29
3rd or more	59	19
Missing data	8	
Living situation		
University college	16	5
With domestic partner	34	11
With parent/s	122	39
Sharing with friends/flatmates	110	35
Living alone	31	10
Missing data	8	

Average hours spent studying per week		
<5	11	4
5–9	50	16
10–14	81	26
15–19	81	26
20+	91	29
Missing data	7	
Average hours in paid employment per week		
<5	104	33
5–9	89	28
10–14	73	23
15–19	34	11
20+	14	4
Missing data	7	
Average hours caring for family per week		
<5	241	77
5–9	41	13
10–14	14	5
15–19	5	2
20+	10	3
Missing data	10	

B The 2012 Wellbeing Survey

An online survey was considered the best means of encouraging student participation in a wellbeing study as it would ensure anonymity and voluntary participation. Survey items were developed based on the literature review discussed above, consultations with stakeholders at MLS, and the results of the 2011 MLS Wellbeing Survey. The 2012 survey comprised demographic questions; two measures of psychological wellbeing; questions about common causes of law student stress, including motivations for study, financial stress and high self-expectations; and questions about protective course-related factors such as perceived teacher autonomy-support, perceived competence in threshold skills and peer engagement.

Demographic questions asked for participants' gender, age, current living situation, fee-type (Commonwealth Supported Place or full-fee), nationality (Australian, international), program (JD, LLB), year level, and average hours per week spent studying, in paid work and caring for family members.

Psychological wellbeing measures comprised the DASS-21[58] and Ryff's Psychological Wellbeing Scales ('PWBS').[59] The DASS-21 consists of three sub-scales assessing depressive, anxiety and stress symptoms respectively. It was chosen over the K10 because of its capacity to discriminate effectively between these three states of psychological distress, as well as the availability of Australian normative data.[60] As the DASS-21 only assesses negative psychological symptoms, the Ryff's PWBS were administered to gather a more comprehensive snapshot of student wellbeing. The Ryff's PWBS measures six elements of positive mental wellbeing that are known to be negatively correlated with depression, anxiety and stress. It is a well-established scale that can provide insight into factors that might protect against psychological distress in particular environments.

Common causes of law student stress were investigated by questions assessing students' reasons for studying law and their sense of career direction; worry about job prospects and current financial stress; and high self expectations. These variables were grouped as 'participant-related factors' as they explore students' individual motivations, perceptions and expectations (cf demographic factors).

Six items investigated students' reasons for studying law using a five-point response scale from 'not at all true of me' to 'extremely true'. Five of these items reproduced those used by Sheldon and Krieger in their research with US law students to investigate intrinsic and extrinsic motivations, and a sixth item reflecting amotivation was developed in consultation with these researchers.[61] These items enabled an 'intrinsic motivation score' to be calculated, reflecting the extent to which students were studying law because of its intrinsic interest or perceived value. (Scores for the two 'internal' reasons were summed and scores on the four 'external' reasons were subtracted to obtain a total intrinsic motivation score).[62] Thus, a low intrinsic motivation score would mean that a student was studying law primarily in order to please others or avoid a sense of guilt, to obtain external rewards in due course, or because they could see no better options. Alongside this measure, the survey included a three-item career

58 S H Lovibond and P F Lovibond, *Manual for the Depression Anxiety Stress Scales* (Psychology Foundation of Australia, 2nd ed, 1995).

59 Carol D Ryff and Corey Lee M Keyes, 'The Structure of Psychological Well-Being Revisited' (1995) 69 *Journal of Personality and Social Psychology* 719.

60 On the construct validity of the three scales included in the DASS-21, see Julie D Henry and John R Crawford, 'The Short-Form Version of the Depression Anxiety Stress Scales (DASS-21): Construct Validity and Normative Data in a Large Non-clinical Sample' (2005) 44 *British Journal of Clinical Psychology* 227; Martin M Antony et al, 'Psychometric Properties of the 42-Item and 21-Item Versions of the Depression Anxiety Stress Scales in Clinical Groups and a Community Sample' (1998) 10 *Psychological Assessment* 176. For normative data for a non-clinical sample of the general Australian population, see John Crawford et al, 'Percentile Norms and Accompanying Interval Estimates from an Australian General Adult Population Sample for Self-Report Mood Scales (BAI, BDI, CRSD, CES-D, DASS, DASS-21, STAI-X, STAI-Y, SRDS, and SRAS)' (2011) 46 *Australian Psychologist* 3.

61 The authors again note their gratitude to Professors Krieger and Sheldon for their generosity and assistance with developing some of the survey items and scales.

62 This replicated the procedure used by Sheldon and Krieger, 'Changes in Motivation', above n 8, 269.

direction scale assessing whether students knew what type of career they wanted to undertake and with what type of employer. A single item was included asking students whether they expected to practice law after graduating (level of agreement on a five-point scale).

Worry about job prospects and current financial stress were measured by level of agreement on a five-point scale with the statements: 'I worry about my future employment and job prospects' and 'My financial situation is a significant source of stress'.

High self-expectations were identified by law students in the 2011 MLS wellbeing survey as the most common source of stress. This factor was investigated in 2012 through the inclusion of 11 items that asked respondents about self-imposed standards (perfectionism) – always wanting to do one's best – and worry about comparisons with others.[63] A typical item on the perfectionism scale was: 'I try to do everything as well as possible' and a typical item on the worry about comparisons scale was: 'I spend too much time worrying about what people think of me'.

Course-related factors that may exacerbate or protect against psychological distress were investigated through questions assessing perceived teacher and faculty autonomy support; course satisfaction; peer engagement; whether students were comprehending and coping with the course material; whether they were present and prepared for classes; their perceived competence in threshold skills; and satisfaction with academic results in law to date. A minimum of three items assessed each course-related factor and the scales had good to strong reliability coefficients (reported in Appendix A). The teacher and faculty autonomy support scales were a modified version of Black and Deci's Learning Climate Questionnaire as applied by Sheldon and Krieger in their research with US law students.[64]

C Methods of Analysis

This study aimed to investigate factors associated with elevated levels of psychological distress in a sample of Australian law students. The DASS-21 was used to measure respondents' experience of the symptoms of three distinct forms of distress: depression, anxiety and stress. The *Manual for the Depression Anxiety Stress Scales*, prepared by the scale developers through tests with non-clinical samples, stipulates cut-off scores for each of the scales to classify results

63 Ten of the items were drawn from the Black Dog Institute's questionnaire, which assessed 'perfectionism' and 'anxious worrying': Black Dog Institute, *Temperament and Personality Questionnaire* (8 May 2012) <http://www.blackdoginstitute.org.au/public/research/researchtools.cfm#TPQ>. Perfectionism and worry about comparisons were identified as more specific sources of stress for law students through a literature review (see Part II) and consultation with the Manager of Counselling and Psychological Services at the University of Melbourne. These items asked students to rate on a four-point scale the extent to which statements were generally 'true of you', with response options ranging from 'not at all true' to 'very true'.

64 Sheldon and Krieger, 'Negative Effects of Legal Education', above n 10, 888.

on a continuum from 'normal' to 'extremely severe' symptom levels.[65] We used these cut-off scores to classify DASS-21 raw scores as 'normal', 'mild', 'moderate', 'severe' or 'extremely severe' for each of the depression, anxiety and stress scales.

Consistent with earlier studies,[66] 'elevated' psychological distress was defined in this study as a score in the moderate to extremely severe range ('moderate+') on any of the three DASS-21 scales. In studies with general adult populations, this range included fewer than 13 per cent of respondents.[67] Moreover, moderate and higher levels of psychological distress are likely to impact on a person's daily activities and functioning so that interventions to address symptoms at this level are indicated.[68] Supplementary analyses were conducted on the responses of participants with severe to extremely severe ('severe+') DASS-21 symptom levels as law schools are particularly concerned with understanding and addressing the factors associated with such high levels of psychological distress among their students. In studies with general adult populations, this range included fewer than six per cent of respondents.[69]

As outlined above, three groups of explanatory variables were investigated: 'demographic' variables (including age, gender, living situation, and time commitments); 'participant-related variables' (potential risk factors such as high perfectionism or financial stress); and 'course-related variables' (potentially protective factors such as high perceived teacher/faculty autonomy support or peer engagement). Statistical analyses investigated whether each of these variables had a statistically significant association[70] with elevated levels of psychological distress (univariate analyses). The strength of associations was measured by ascertaining the Odds Ratio ('OR') – in this study the OR calculates 'the odds' of a respondent who is experiencing an elevated level of psychological distress returning a positive response for a particular explanatory variable. Variables that were found to have a significant association with elevated distress levels were then included in a multivariate analysis to identify which variables maintained a strong, independent association with elevated depressive, anxiety or stress symptoms when the other explanatory variables were taken into account. More detailed information on the statistical analyses undertaken is provided in Appendix A.

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65 Lovibond and Lovibond, above n 58.

66 See, eg, Townes O'Brien, Tang and Hall, above n 1; Nuran Bayram and Nazan Bilgel, 'The Prevalence and Socio-demographic Correlations of Depression, Anxiety and Stress among a Group of University Students' (2008) 43 *Social Psychiatry and Epidemiology* 667.

67 John R Crawford and Julie D Henry, 'The Depression Anxiety Stress Scales (DASS): Normative Data and Latent Structure in a Large Non-clinical Sample' (2003) 42 *British Journal of Clinical Psychology* 111. See also Crawford et al, above n 59.

68 See Townes O'Brien, Tang and Hall, above n 1, 165–6.

69 See Crawford and Henry, above n 67.

70 As is conventional, statistical significance was defined as a probability of 95 per cent or greater (or $p < 0.05$) that the observed association was not owing to chance.

IV LEVELS OF MENTAL DISTRESS AND WELLBEING

A DASS-21 Findings

One hundred and fifty participants in the survey reported experiencing moderate+ symptoms on at least one of the scales: depression, anxiety or stress. Anxiety symptoms were most common with 33 per cent of respondents recording scores in the moderate+ range on this scale. Moderate+ stress symptoms were reported by 30 per cent of respondents and moderate+ depressive symptoms by 26 per cent of respondents. Table 2 compares the respondents' mean DASS-21 scores with those of a non-clinical sample from the general adult Australian population. It confirms that the law students in our survey were significantly more likely than members of the general population to report elevated symptoms of depression, anxiety and stress.

Table 2: MLS participants' mean scores on DASS-21 depression, anxiety and stress scales compared with those of a general Australian adult sample

	Australian adult sample* N=497	**Law student sample N=316**	**Anova statistic *p* value**
Depression			
Mean	2.6	4.6	$p < 0.001$
SD	3.9	4.0	
Anxiety			
Mean	1.7	3.7	$p < 0.001$
SD	2.9	3.8	
Stress			
Mean	4.0	7.2	$p < 0.001$
SD	4.2	4.6	

*John Crawford et al, 'Percentile Norms and Accompanying Interval Estimates from an Australian General Adult Population Sample for Self-Report Mood Scales (BAI, BDI, CRSD, CES-D, DASS, DASS-21, STAI-X, STAI-Y, SRDS, and SRAS)' (2011) 46 *Australian Psychologist* 3.

The co-presentation of elevated distress symptoms was investigated for the 305 respondents who answered all questions for all three DASS-21 scales. Fifty-five per cent (169/305) of these students were in the normal-mild range on all three scales. For students in the moderate+ range on any scale, 34 per cent (46/136) recorded elevated distress on only one scale, while 66 per cent (90/136) experienced at least two of the three types of distress. Of participants recording elevated levels for two forms of distress, anxiety and stress were the most common co-presentation of symptoms, accounting for more cases than the combined number of depression and anxiety and depression and stress cases. Twenty-nine per cent (39/136) of the respondents reported moderate+ symptoms of distress on all three scales.

Of concern, 22 per cent (68/305) of the sample were classified as experiencing severe+ symptoms of psychological distress on one or more of the DASS-21 scales. It is noteworthy that these respondents appeared more likely to experience a distinct state or form of distress compared with the students reporting moderate levels of distress. Fifty-six per cent of respondents with DASS-21 levels in the severe+ range reported symptoms specific to only one form of distress (38/68), indicating that it is important to address the different forms or states of distress when planning interventions. Fifteen per cent of severe+ respondents (10/68) reported severe+ symptoms on all three scales.

B Ryff's PWBS

As discussed earlier, the Ryff's PWBS measures positive wellbeing in relation to six dimensions: personal growth; environmental mastery; positive relationships with others; self-acceptance; purpose in life; and sense of autonomy.[71] High scores on these scales are associated with a state of wellbeing or wellness that is considered protective against psychological distress.

Respondents' scores on the Ryff's PWBS were correlated with scores on the DASS-21 scales (Appendix B). We found statistically significant negative correlations between depression, anxiety and stress symptoms on the DASS-21 scales and environmental mastery, positive relations with others and self-acceptance on the Ryff's PWBS. In other words, as depression or anxiety or stress increased, environmental mastery, positive relations with others and self-acceptance decreased and vice versa. DASS-21 depression ratings were strongly significantly related to all Ryff's PWBS categories, although personal growth and purpose were less related to DASS-21 levels than the other Ryff's PWBS categories. Environmental mastery and self-acceptance were most strongly negatively associated with DASS-21 depression levels. There was also a strong negative relation between DASS-21 anxiety and stress ratings and positive relations with others. Personal growth and purpose scale scores were not significantly associated with anxiety and stress levels.

This analysis suggests that the three areas of positive psychological functioning where law student wellbeing is likely undermined currently are:

- Environmental mastery – low scores indicate the person has difficulty managing everyday affairs and lacks a sense of control over the external world.
- Self-acceptance – low scores indicate the person feels dissatisfied with himself or herself and wishes to be different than what/who he or she is.
- Positive relations with others – low scores indicate the person has few close, trusting relationships with others; finds it difficult to be warm, open, and concerned about others; and is not willing to make compromises to sustain important ties with others.

71 Note that the concept of autonomy as applied in the Ryff's PWBS subscale is not identical to the SDT concept of autonomy described above.

Ryff's PWBS results indicate that efforts to improve law student mental health would be well advised to target these areas. More information is needed, however, to understand what environmental mastery and self-acceptance might mean, and how they might be improved, in a law school context. The participant and course-related variables reported in Parts VI–VIII below are of assistance in this respect.

V DEMOGRAPHIC VARIABLES ASSOCIATED WITH ELEVATED DISTRESS

The survey asked about participants' age, gender, living situation, fee type, nationality, year level, program and weekly time commitments. Of interest, neither age nor gender was independently associated with symptoms of psychological distress. As found in previous surveys, there were also no statistically significant differences in the levels of psychological distress experienced by Australian and international students;[72] and no significant differences in psychological distress based on program type (JD, LLB) and year level within program, confirming results of an earlier study at MLS.[73] Frequency tables on the proportion of participants with elevated symptoms of depression, anxiety and stress stratified by the main demographic characteristics are provided in Appendices C1, D1 and E1, respectively.

The only significant associations between psychological distress and demographic characteristics were related to participants' commitments to paid work or family care. Students undertaking paid work for 15 or more hours per week were significantly more likely to experience moderate+ anxiety (OR = 2.1, $CI_{.95}$ = [1.1-4.0], p = .03). However, there was not a significant association between hours in paid work and severe+ anxiety, nor between hours in paid work and depression or stress. By contrast, commitments to family care were significantly associated with elevated levels of all forms of distress: depression, anxiety and stress (Table 3).

Twenty-three per cent of the sample (70/311) indicated that they spent five or more hours per week caring for family members. ORs shown in Table 3 indicate that respondents experiencing severe+ depression were 3.5 times more likely to report commitments to family care than students who were not in this depression category. This indicates a very strong association between family care and very high levels of depression – in other words, family care increases the risk of being in the severe+ depression group. A strong association is also seen between family care and both moderate+ and severe+ anxiety. There is also an increased risk of moderate+ stress in those students spending five or more hours per week caring for family members.

72 See, eg, Said, Kypri and Bowman, above n 51; Stallman, above n 50, 252.

73 See Larcombe et al, above n 1.

Table 3: Odds ratios for elevated DASS-21 distress levels by family care of five or more hours per week

	Moderate+ symptoms: Odds Ratio and 95% Confidence Intervals	*p* value	Severe+ symptoms: Odds Ratio and 95% Confidence Intervals	*p* value
Depression				
Caring for family five or more hours per week				
No	1	0.09	**1**	**<0.01**
Yes	1.7 [1.0–3.1]		**3.5 [1.6–7.8]**	
Anxiety				
Caring for family five or more hours per week				
No	**1**	**<0.01**	**1**	
Yes	**2.8 [1.6–4.8]**		**2.4 [1.2–4.8]**	**0.02**
Stress				
Caring for family five or more hours per week				
No	**1**	**0.02**	1	0.08
Yes	**2.0 [1.1–3.5]**		1.9 [0.9–3.9]	
Note: Statistically significant results, $p < 0.05$, are presented in bold type.				

The survey did not ask participants to specify whether the family members they were caring for were children or older relatives, but when we stratified this group by living situation, respondents who undertook five or more hours a week of family care who were living with a domestic partner scored significantly lower on both the DASS-21 depression and anxiety scales than respondents who were living with parents and caring for family members five or more hours per week (depression mean scores 6.4 versus 9.7, $p = 0.04$ and anxiety mean scores 7.3 versus 10.2, $p < 0.01$). Therefore we could extrapolate that caring for older family members may account for the higher risk ratio for depression and anxiety in the group with family care commitments.

VI PARTICIPANT AND COURSE-RELATED VARIABLES ASSOCIATED WITH DEPRESSIVE SYMPTOMS

A Participant-Related Variables and Depression

The associations between elevated symptoms of depression and participant-related factors were examined. As explained above, these survey items asked whether participants perceived that they were affected by common causes of stress including lack of motivation for study, financial and career worries, or high self-expectations. The frequency data are provided in Appendix C2 and crude ORs are displayed in Table 4. As Table 4 shows, of the seven factors investigated, a high perfectionism score was the only factor *not* significantly associated with elevated levels of depressive symptoms.

Table 4: Associations of participant-related variables and depression symptoms – univariate analysis

	Moderate+ Depression symptoms: Odds Ratio and 95% Confidence Intervals	***p* value**	**Severe+ Depression symptoms:** Odds Ratio and 95% Confidence Intervals	***p* value**
Intrinsic motivation score				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**4.9 [2.8–8.7]**		**7.5 [3.3–17.1]**	
Career direction rating				
Average–high	**1**	**<0.01**	1	0.30
Low**	**3.0 [1.7–5.3]**		1.5 [0.6–3.6]	
Expect to practice law				
Agree	**1**	**<0.01**	1	0.07
Not agree	**3.4 [2.0–6.0]**		2.2 [1.0–4.9]	
Worry about job prospects				
Not at all true or Slightly true	**1**	**<0.01**	**1**	**0.02**
Moderately true or Very true	**2.5 [1.4–4.3]**		**3.1 [1.2–7.9]**	
Financial stress				
Not at all true–Moderately true	**1**	**<0.01**	1	0.10
Very true	**3.1 [1.9–5.1]**		2.0 [0.9–4.3]	
Perfectionism rating				
Average–low	1	0.66	1	0.82
High*	0.8 [0.5–1.5]		0.8 [0.3–2.1]	
Worry about comparisons				
Average–low	**1**	**<0.01**	**1**	**<0.01**
High*	**3.6 [2.1–6.2]**		**6.0 [2.6–13.8]**	

**represents bottom quartile of participants from related survey score
* represents top quartile of participants from related survey score
Note: Statistically significant results are presented in bold type.

Intrinsic motivation, an aggregate score derived from the students' reasons for studying law, is seen to be strongly associated with elevated depression symptoms, with more than half of those students in the bottom quartile for intrinsic motivation experiencing moderate+ depressive symptoms. ORs show that respondents experiencing severe+ depression were 7.5 times more likely, and those experiencing moderate+ depression 4.9 times more likely, to record a low intrinsic motivation score. Given this finding, we further analysed the components that contributed to this variable (Appendix F). A very strong risk factor for depression, particularly severe+ depression, was any level of agreement that a participant was studying law because '*I would feel guilty, ashamed or anxious if I weren't. That is, one reason I'm in law school now is that I feel I "should" do this course, even though I'm not sure I want to*'. Respondents who selected any of the four response options from 'slightly true' to 'extremely true' (that is, anything other than 'not at all true') were at particularly high risk of experiencing severe+ depression (OR = 9.0, CI_{95} = [3.7-22.2], p <0.001, Appendix F).

With respect to the other participant-related variables analysed, there was an extremely strong univariate association between moderate+ depression and a high score on the 'worry about comparisons' scale, and this association was even greater for severe+ depression. Worry about job prospects was also significantly associated with both moderate+ and severe+ depression. Financial stress, lack of career direction, and non-agreement with 'expect to practice law' were all strongly associated with moderate+ depression.

B Course-Related Variables and Depression

The associations between elevated symptoms of depression and course-related variables were examined. As explained above, the research literature suggests that these variables, or aspects of law school experience, are likely to support, or undermine, student mental wellbeing. The frequency data are provided in Appendix C3 and ORs are displayed in Table 5. As the data show, all seven variables were significantly associated with moderate+ depression symptoms, and six of the seven were significantly associated with severe+ depression symptoms.

Table 5: Associations of course-related variables and depressive symptoms – univariate analysis

	Moderate+ Depression symptoms: Odds Ratio and 95% Confidence Intervals	***p* value**	**Severe+ Depression symptoms:** Odds Ratio and 95% Confidence Intervals	***p* value**
Teacher and faculty Support				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**3.7 [2.1–6.4]**		**8.3 [3.5–19.2]**	

Course satisfaction				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**5.2 [3.0–9.2]**		**5.1 [2.3–11.6]**	
Peer engagement				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**3.4 [2.0–5.8]**		**4.4 [2.0–9.9]**	
Comprehending and coping				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**3.3 [1.9–5.9]**		**4.2 [1.9–9.2]**	
Prepared and present				
Average–high	**1**	**0.01**	1	0.83
Low**	**2.1 [1.2–3.5]**		1.1 [0.5–2.6]	
Perceived competence				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**3.6 [2.1–6.1]**		**5.5 [2.4–12.4]**	
Results satisfaction				
Average–high	**1**	**0.03**	**1**	**0.01**
Low**	**1.9 [1.1–3.4]**		**2.8 [1.3–6.2]**	
represents bottom quartile of participants from related survey score **Note: Statistically significant results are presented in bold type.				

The strongest association for severe+ depressive symptoms was with perceived teacher/faculty autonomy support: students experiencing severe+ depressive symptoms were more than eight times as likely to feel unsupported by their law teachers and the faculty as a whole. These students are also more than five times as likely to report low levels of satisfaction with their law course, and low perceived competence in their threshold skills. Low levels of peer engagement, perceived low ability to comprehend and cope with the course materials, and low results satisfaction were also significantly associated with severe+ depression symptoms.

The strongest association for moderate+ depressive symptoms was with low course satisfaction, followed by low perceived teacher/faculty support, low perceived competence, low peer engagement and low perceived ability to comprehend and cope with the course materials. A low self-rating of preparedness for class and low results satisfaction were also significantly associated with moderate+ depressive symptoms.

C Multivariate Analysis for Variables Associated with Depressive Symptoms

A multivariate analysis of the factors associated with elevated depressive symptoms was performed as described in Appendix A. As expectation to practice

law and career direction were found to be extremely highly correlated, career direction was removed to improve the health of the model. For moderate+ depression, 12 variables were entered: intrinsic motivation score, expectation to practice law, worry about job prospects, financial stress, worry about comparisons, teacher/faculty support, course satisfaction, peer engagement, comprehending and coping, prepared and present, perceived competence, and satisfaction with results. As shown in Table 6, adjusted odds ratios ('AOR') were calculated and, after controlling for other variables, the factors found to be independently related to moderate+ depression were low course satisfaction (*AOR* = 2.4), low intrinsic motivation score (*AOR* = 2.3), and high worry about comparisons (*AOR* = 2.0).

The multivariate analysis for severe+ depression included 10 variables: caring for family five or more hours per week; intrinsic motivation score; worry about job prospects; worry about comparisons; teacher/faculty support; course satisfaction; peer engagement; comprehending and coping; perceived competence; and satisfaction with results. As shown in Table 6, after adjustment for other variables, low perceived teacher/faculty autonomy support (*AOR* = 3.2) remained significantly associated with severe+ depression, while low intrinsic motivation approached borderline significance (*AOR* = 3.0).

Table 6: Variables independently associated with depression symptoms after multivariate analysis

	Moderate+ Depression Symptoms		**Severe+ Depression Symptoms**	
	Adjusted Odds Ratio and 95% Confidence Intervals	*p* value	Adjusted Odds Ratio and 95% Confidence Intervals	*p* value
Intrinsic motivation score low	**2.3 [1.1-4.9]**	**0.04**	3.0 [1.0-9.3]	0.06
Worry about comparisons high	**2.0 [1.0-4.2]**	**0.05**	-	-
Teacher/faculty support low	-	-	**3.2 [1.1-9.3]**	**0.03**
Course satisfaction low	**2.4 [1.0-5.6]**	**0.05**	-	-

VII PARTICIPANT AND COURSE-RELATED VARIABLES ASSOCIATED WITH ANXIETY SYMPTOMS

A Participant-Related Variables and Anxiety

The associations between elevated symptoms of anxiety and participant-related factors are shown in Table 7 (frequency data are provided in Appendix D2). Five variables showed a significant association with either moderate+ anxiety or severe+ anxiety symptoms. As with depressive symptoms, a high perfectionism rating was *not* statistically associated with elevated levels of anxiety. Non-agreement with 'expect to practice law' was associated with severe+ anxiety symptoms, but did not reach significance for moderate+ anxiety

symptoms. By contrast, a low intrinsic motivation score was significantly associated with moderate+ anxiety, but, unlike depression, not severe+ symptoms of anxiety.

The strongest univariate association for anxiety was with high levels of worry about comparisons with others. Students with elevated anxiety symptoms were more than three times as likely to record a high score on the 'worry about comparisons' scale. Concerns about job prospects and financial stress were also strongly associated with both moderate+ and severe+ anxiety levels.

Table 7: Associations of participant-related variables and elevated anxiety symptoms – univariate analysis

	Moderate+ Anxiety Symptoms: Odds Ratio and 95% Confidence Intervals	***p* value**	**Severe+ Anxiety Symptoms:** Odds Ratio and 95% Confidence Intervals	***p* value**
Intrinsic motivation score				
Average–high	**1**	**0.04**	1	0.18
Low**	**1.8 [1.1–3.1]**		1.7 [0.8–3.4]	
Career direction rating				
Average–high	**1**	**0.04**	**1**	**0.05**
Low**	**1.8 [1.0–3.1]**		**2.1 [1.1–4.3]**	
Expect to practise law				
Agree	1	0.26	**1**	**<0.01**
Not agree	1.4 [0.8–2.4]		**2.8 [1.5–5.5]**	
Worry about job prospects				
Not at all true or Slightly true	**1**	**<0.01**	**1**	**<0.01**
Moderately true or Very true	**2.5 [1.5–4.2]**		**2.9 [1.4–6.1]**	
Financial stress				
Not at all true–Moderately true	**1**	**<0.01**	**1**	**0.04**
Very true	**2.8 [1.7–4.5]**		**2.0 [1.1–3.8]**	
Perfectionism rating				
Average–low	1	0.59	1	0.46
High*	1.2 [0.7–2.0]		1.3 [0.6–2.7]	
Worry about comparisons				
Average–low	**1**	**<0.01**	**1**	**<0.01**
High*	**3.1 [1.8–5.1]**		**3.5 [1.8–6.7]**	

**represents bottom quartile of participants from related survey score
* represents top quartile of participants from related survey score
Note: Statistically significant results are presented in bold type.

B Course-Related Variables and Anxiety

The associations between symptoms of anxiety and course-related factors are shown in Table 8 (frequency data are provided in Appendix D3). All course related variables except 'prepared and present for classes' and 'satisfaction with results' were significantly associated with both moderate+ and severe+ anxiety symptoms.

The strongest associations for anxiety were with 'low peer engagement' and 'low perceived teacher/faculty autonomy support', which were strongly associated with both moderate+ and severe+ anxiety symptoms. Low peer engagement was particularly strongly associated with moderate+ anxiety while low ratings of teacher/faculty autonomy support were particularly strongly associated with severe+ anxiety. Respondents with elevated anxiety symptoms were also more than twice as likely to report low course satisfaction. A low level of comprehending and coping with the course material was strongly associated with severe+ anxiety symptoms. Perceived competence was related to severe+ anxiety but no significant association was seen with moderate+ symptoms of anxiety.

Table 8: Associations of course-related variables and anxiety symptoms – univariate analysis

	Moderate+ Anxiety Odds Ratio and 95% Confidence Intervals	***p* value**	**Severe+ Anxiety** Odds Ratio and 95% Confidence Intervals	***p* value**
Teacher and faculty support				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**2.9 [1.7–4.9]**		**4.2 [2.1–8.3]**	
Course satisfaction				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**2.4 [1.4–4.1]**		**2.9 [1.5–5.8]**	
Peer engagement				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**4.4 [2.6–7.3]**		**2.8 [1.4–5.3]**	
Comprehending and coping				
Average–high	**1**	**0.02**	**1**	**0.01**
Low**	**1.9 [1.1–3.3]**		**2.6 [1.3–5.2]**	
Prepared and present				
Average–high	1	0.79	1	0.46
Low**	0.9 [0.5–1.6]		1.3 [0.7–2.7]	
Perceived competence				
Average–high	1	0.10	**1**	**0.05**
Low**	1.5 [0.9–2.6]		**2.0 [1.0–3.8]**	

Results satisfaction				
Average–high	1	0.09	1	0.18
Low**	1.6 [1.0–2.8]		1.6 [0.6–3.3]	
represents bottom quartile of participants from related survey score **Note: Statistically significant results are presented in bold type.				

C Multivariate Analysis for Variables Associated with Anxiety

A multivariate analysis of the variables significantly associated with elevated anxiety symptoms was performed as described in Appendix A. For moderate+ anxiety, 11 variables were entered: in paid work 15 hours or more per week; caring for family member/s five or more hours per week; intrinsic motivation score; career direction;[74] worry about job prospects; financial stress; worry about comparisons; teacher/faculty support; course satisfaction; peer engagement; and comprehending and coping. After controlling for other variables, the factors found to be independently related to moderate+ anxiety symptoms were low peer engagement, family care, and financial stress (Table 9).

The multivariate analysis for severe+ anxiety had 10 variables: caring for family member/s five or more hours per week; expectation to practice law;[75] worry about job prospects; financial stress; worry about comparisons; teacher/faculty support; course satisfaction; peer engagement; comprehending and coping; and perceived competence. After adjustment for other variables, non-agreement with 'expect to practice law' and low perceived teacher/faculty autonomy support remained strongly independently associated with severe+ anxiety (Table 9).

Table 9: Variables independently associated with anxiety symptoms after multivariate analysis (non-significant results not shown)

	Moderate+ Anxiety Symptoms		**Severe+ Anxiety Symptoms**	
	Adjusted Odds Ratio and 95% Confidence Intervals	*p* value	Adjusted Odds Ratio and 95% Confidence Intervals	*p* value
Family care five or more hours per week	**2.1 [1.1–4.1]**	**0.02**	-	-
Expect to practise law – not agree	-	-	**3.1 [1.3–7.1]**	**<0.01**
Financial stress	**2.0 [1.1–3.6]**	**0.02**	-	-
Teacher/faculty support low	-	-	**2.7 [1.1–6.4]**	**0.02**
Peer engagement low	**2.3 [1.2–4.5]**	**0.02**	-	-

74 As expectation to practice law was not significantly associated with moderate+ anxiety, career direction was kept in the model for this analysis.

75 As expectation to practice law and career direction were both significant on univariate analysis and extremely highly correlated, career direction was removed from the model.

VIII PARTICIPANT AND COURSE-RELATED VARIABLES ASSOCIATED WITH STRESS SYMPTOMS

A Participant-Related Variables and Stress

The associations between elevated symptoms of stress and participant-related variables are shown in Table 10 (frequency data are provided in Appendix E2). Interestingly, lack of career direction and non-agreement with 'expect to practice law' were not significantly associated with elevated levels of stress. All other variables were significantly associated with stress. Worry about comparisons, worry about job prospects, and financial stress were all strongly associated with both moderate+ and severe+ stress symptoms. In contrast with depression and anxiety, perfectionism *was* significantly associated with symptoms of stress on univariate analysis, particularly severe+ stress (OR = 2.7, CI_{95} = [1.4-5.4], p = <.01).

Table 10: Associations of participant-related variables and stress symptoms – univariate analysis

	Moderate+ Stress Symptoms: Odds Ratio and 95% Confidence Intervals	***p* value**	**Severe+ Stress Symptoms:** Odds Ratio and 95% Confidence Intervals	***p* value**
Intrinsic motivation score				
Average–high	**1**	**0.01**	**1**	**0.05**
Low**	**2.1 [1.2–3.6]**		**2.0 [1.0–4.1]**	
Career direction rating				
Average–high	1	0.10	1	1.00
Low**	1.6 [0.9–2.9]		1.0 [0.4–2.2]	
Expect to practise law				
Agree	1	0.06	1	0.34
Not agree	1.7 [0.9–2.9]		1.4 [0.7–2.9]	
Worry about job prospects				
Not at all true or Slightly true	**1**	**<0.01**	**1**	**<0.01**
Moderately true or Very true	**3.3 [1.9–5.6]**		**3.8 [1.7–8.5]**	
Financial stress				
Not at all true–Moderately true	**1**	**<0.01**	**1**	**<0.01**
Very true	**3.1 [1.9–5.1]**		**2.9 [1.5–5.7]**	
Perfectionism rating				
Average–low	**1**	**0.04**	**1**	**<0.01**
High*	**1.8 [1.0–3.0]**		**2.7 [1.4–5.4]**	
Worry about comparisons				
Average–low	**1**	**<0.01**	**1**	**<0.01**
High*	**3.2 [1.9–5.4]**		**4.1 [2.1–7.9]**	

**represents bottom quartile of participants from related survey score
* represents top quartile of participants from related survey score
Note: Statistically significant results are presented in bold type.

B Course-Related Variables and Stress

The associations between elevated symptoms of stress and course-related variables are shown in Table 11 (frequency data are provided in Appendix E3). Results satisfaction and being prepared and present for classes were not significantly associated with elevated stress levels, and low course satisfaction was only significantly associated with moderate+ stress. The strongest association for elevated stress was with teacher/faculty support, with highly stressed students more than 3.5 times as likely to record a low rating of perceived autonomy support. Low scores on peer engagement and comprehending and coping were also strongly associated with both moderate+ and severe+ stress. Perceived competence was also significantly associated with elevated stress symptoms.

Table 11: Associations of course-related variables and stress symptoms – univariate analysis

	Moderate+ Stress symptoms: Odds Ratio and 95% Confidence Intervals	***p* value**	**Severe+ Stress symptoms:** Odds Ratio and 95% Confidence Intervals	***p* value**
Teacher and faculty support				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**3.7 [2.2–6.4]**		**3.6 [1.8–7.0]**	
Course satisfaction				
Average–high	**1**	**<0.01**	1	0.13
Low**	**2.5 [1.5–4.3]**		1.8 [0.9–3.5]	
Peer engagement				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**3.4 [2.0–5.7]**		**2.8 [1.5–5.5]**	
Comprehending and coping				
Average–high	**1**	**<0.01**	**1**	**<0.01**
Low**	**3.9 [2.2–6.9]**		**2.9 [1.5–5.8]**	
Prepared and present				
Average–high	1	1.00	1	0.71
Low**	1.0		0.8 [0.4–1.8]	
Perceived competence				
Average–high	**1**	**<0.01**	**1**	**0.02**
Low**	**2.3 [1.4–3.9]**		**2.3 [1.2–4.4]**	
Results satisfaction				
Average–high	1	0.20	1	0.34
Low**	1.4 [0.8–2.5]		1.4 [0.7–2.9]	

**represents bottom quartile of participants from related survey score
Notes: Statistically significant results are presented in bold type.

C Multivariate Analysis for Variables Associated with Stress

Eleven variables were entered into a multivariate logistic regression model for moderate+ stress: caring for family member/s for five or more hours per week, intrinsic motivation score, worry about job prospects, financial stress, perfectionism, worry about comparisons, teacher/faculty support, course satisfaction, peer engagement, comprehending and coping, and perceived competence. After controlling for other variables, the factors found to be independently associated with moderate+ stress were worry about job prospects (*AOR* = 2.3), financial stress (*AOR* = 2.0), and low peer engagement (*AOR* = 2.1) (Table 12).

The multivariate analysis for severe+ stress had nine variables entered: intrinsic motivation score, worry about job prospects, financial stress, perfectionism, worry about comparisons, teacher/faculty support, peer engagement, comprehending and coping, and perceived competence. Perfectionism (*AOR* = 2.7) remained statistically associated with severe+ stress after adjustment for other variables and worry about comparisons (*AOR* = 2.3) achieved borderline significance (Table 12). The association between severe+ stress and worry about job prospects approached borderline significance (*AOR* = 2.6).

Table 12: Variables independently associated with stress symptoms after multivariate analysis

	Moderate+ Stress Symptoms		**Severe+ Stress Symptoms**	
	Adjusted Odds Ratio and 95% Confidence Intervals	*p* value	Adjusted Odds Ratio and 95% Confidence Intervals	*p* value
Worry about job prospects	**2.3 [1.2–4.6]**	**0.01**	2.6 [1.0–7.1]	0.06
Financial stress	**2.0 [1.1–3.6]**	**0.03**	-	-
Perfectionism	-	-	**2.7 [1.2–5.8]**	**0.02**
Worry about comparisons	-	-	**2.3 [1.0–5.4]**	**0.05**
Peer engagement low	**2.1 [1.0–4.1]**	**0.04**	-	-

IX DISCUSSION

The present study investigated factors associated with elevated levels of psychological distress among a sample of Australian law students. While there is now a growing body of evidence documenting the prevalence of distress among law students, there has been relatively little empirical investigation of the participant and course-related factors that may be contributing to students' distress. Moreover, to date, empirical studies have rarely tested the strength of associations between explanatory variables and elevated levels of distress when a range of variables is taken into account (multivariate analysis). Without such analyses, our understanding of the factors contributing to law students' levels of psychological distress is limited.

Our focus in this article was on reporting variables statistically associated with moderate+ and severe+ levels of distress. While moderate+ symptom levels were described as 'elevated', the subset of respondents experiencing severe+ symptom levels was independently analysed as it is particularly urgent that factors associated with such high levels of distress are identified and redressed.

Demographic, participant-related and course-related variables were investigated. It is noteworthy that few demographic differences distinguished those with elevated distress levels from those without.[76] On univariate analysis, for example, gender, age, nationality, law program and year level in the program were not significantly associated with either moderate+ or severe+ forms of distress. Indeed, the only 'demographic' variables that showed a significant association with elevated distress levels were commitments to paid work of 15 or more hours per week or to family care for five or more hours per week. By contrast, *all* of the participant-related and course-related variables included in the study showed statistically significant associations on univariate analysis with one or more forms of distress at either moderate+ or severe+ levels. Given that most studies of university student wellbeing to date have focussed on demographic variables rather than course-related factors,[77] this finding provides important direction for further research designed to identify student groups who may be at higher risk of experiencing psychological distress.

Another important finding from the present study was that different variables were associated with different *forms* of psychological distress, indicating that a 'one size fits all' approach to student mental wellbeing is unlikely to be effective. For example, high perfectionism was strongly independently associated with severe+ stress, yet it was not significantly associated with elevated depression or anxiety symptoms even on univariate analysis. Similarly, low perceived teacher/faculty autonomy support was strongly associated with severe+ depression symptoms and anxiety symptoms but not stress symptoms. In this respect, the DASS-21 proved to be a useful instrument not only for measuring respondents' levels of psychological distress but also for distinguishing between elevated depressive, anxiety and stress symptoms. Our findings suggest that the different forms of distress and their associated variables need to be kept in mind when designing responses and services to improve law student wellbeing.

The differences between factors associated with moderate+ distress and those associated with severe+ distress are also informative. Interestingly, the variables that were found to be significantly associated on multivariate analysis with each form of severe+ distress were not significantly associated on multivariate analysis with moderate+ levels of that particular form of distress.[78] This may be

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76 This is consistent with previous studies: see, eg, Benjamin et al, above n 8, 246; Larcombe et al, above n 1.

77 See, eg, Stallman above n 50; Said, Kypri and Bowman, above n 51; Bayram and Bilgel, above n 66.

78 Only low intrinsic motivation (associated with depression) and worry about job prospects (associated with stress) approached statistical significance for severe+ distress, while being strongly associated with moderate+ distress.

due to the fact that co-presentation of two or three forms of distress was more common in the moderate+ range; when moderate distress was excluded from analysis, respondents were more likely to report severe+ distress on one scale only – that is, for a particular form of distress. The finding suggests, however, that severe+ levels of distress have distinct triggers or risk associations. For this reason, the factors associated with severe+ levels of distress and those associated with moderate+ levels of distress are discussed separately in the next sections.

A Factors Associated with Severe+ Levels of Distress

As shown in Table 13, only four variables were independently associated with severe+ symptoms of the different forms of distress after other variables had been taken into account. Notably, low teacher/faculty autonomy support was strongly independently associated with both severe+ depression and anxiety. Not agreeing that you expected to practice law was also associated with severe+ anxiety, while perfectionism and worry about comparisons (both forms of high self-imposed standards) were associated with severe+ stress.

Table 13: Variables independently associated with severe+ distress by form of distress

Variable	Severe+ Distress Symptoms: Form/s of Distress
Teacher/faculty support low	Depression + Anxiety
Expect to practice law – not agree	Anxiety
Perfectionism high	Stress
Worry about comparisons high	Stress

Our results indicate that severe+ psychological distress in the form of depression or anxiety would be best addressed by initiatives designed to improve student perceptions of teacher/faculty autonomy support as described within SDT. That is, as outlined above, by: teachers and faculty members demonstrating understanding of students' perspectives and experiences; providing meaningful choices that enable students to pursue emerging interests and express core values; and justifying when lack of choice is necessary so that students may internalise the reasoning, thereby reducing the perception of external 'controls' and unnecessary restrictions. Low perceived teacher/faculty support scores mean that these students feel controlled, misunderstood and/or undersupported by both their teachers and the faculty generally.[79] The SDT research literature provides additional guidance on teacher training methods and teaching practices that promote student autonomy, with positive results for learning as well as

79 Respondents generally rated teachers as more autonomy supportive than the faculty as a whole, but perceptions of teacher-support were more strongly associated with psychological distress than perceptions of faculty-support.

wellbeing.[80] However, more research that trials and evaluates autonomy-supportive methods developed specifically for law teaching would be extremely useful. In addition to curriculum innovations and teaching methods that support students' autonomy, access to individual course advising, academic advising and career counselling may assist students experiencing severe+ depressive or anxiety symptoms to identify the meaningful choices available to them and also to help them feel that their teachers and the faculty understand their perspective.

Non-agreement with the proposition 'I expect to practice law after graduating' was also strongly independently associated with severe+ anxiety. This factor may be associated with anxiety because students who are not expecting to enter legal practice are unsure about their career prospects and options. Hence, access to individual careers counselling may be of assistance for severely anxious students. Class-based examples that demonstrate applications of the skills and competencies acquired through study in law in a range of fields and contexts may also benefit these students. Distinct course options and experiential learning opportunities designed specifically for students who do not expect to enter legal practice may also benefit this group. However, more research on this point would be valuable: as lack of expectation to practice law is so clearly associated with high levels of anxiety, more insight regarding what this variable represents would help to determine how to redress or prevent this aspect of law student distress.

Students experiencing severe+ stress were significantly more likely to record high scores for perfectionism and/or worry about comparisons. It was of interest that perfectionism came through so strongly on the multivariate analysis for stress, given that it showed no significant associations with elevated depressive or anxiety symptoms, even on univariate analysis.[81] Worry about comparisons was also strongly associated with severe+ stress indicating that self-imposed high expectations – based on either an absolute or a relative standard – are a particularly important factor to consider when responding to severe+ stress. Workshops on managing perfectionism or high self-expectations, individual

80 See especially Anna Huggins, 'Autonomy Supportive Curriculum Design: A Salient Factor in Promoting Law Students' Wellbeing' (2012) 35 *University of New South Wales Law Journal* 683. See also Filak and Sheldon, above n 21; Aaron E Black and Edward L Deci, 'The Effects of Instructors' Autonomy Support and Students' Autonomous Motivation on Learning Organic Chemistry: A Self-Determination Theory Perspective' (2000) 84 *Science Education* 740; Geoffrey C Williams and Edward L Deci, 'Internalization of Biopsychosocial Values by Medical Students: A Test of Self-determination Theory' (1996) 70 *Journal of Personality and Social Psychology* 767. See generally the publications on the SDT website: <http://www.selfdeterminationtheory.org/browse-publications>.

81 Supporting this result – that is, that perfectionism is specifically related to stress, but not to other forms of psychological distress – was the finding that participants with high perfectionism scores scored significantly better than other students on five of the six Ryff's PWBS subscales (data not shown). In other words, aside from their stress levels, students with high perfectionism scores were psychologically healthy.

counselling and online resources[82] to assist students to understand and moderate unreasonable self-expectations are thus likely to be of most value in reducing severe+ levels of stress experienced by law students.

B Factors Associated with Moderate+ Levels of Distress

As shown in Table 14, seven variables were independently associated with moderate+ symptoms of the different forms of distress after other variables had been taken into account. Our findings indicate that moderate+ psychological distress could be addressed by measures to improve: low peer engagement; worry about comparisons; financial stress; worry about job prospects; family care commitments; low course satisfaction; and low intrinsic motivation for study in law. The fact that these factors were independently associated with elevated distress on multivariate analyses does not demonstrate causality, but does indicate strong relationships between these variables and elevated psychological distress. Hence, these findings can usefully inform the design of interventions and programs intended to reduce and prevent elevated psychological distress.

Table 14: Variables independently associated with moderate+ distress by form of distress

Variable	Moderate+ Distress Symptoms: Form/s of Associated Distress
Family care five or more hours per week	Anxiety
Intrinsic motivation score low	Depression
Worry about job prospects high	Stress
Financial stress high	Anxiety + Stress
Worry about comparisons high	Depression
Course satisfaction low	Depression
Peer engagement low	Anxiety + Stress

The range of variables associated with moderate+ levels of psychological distress indicate that, in addition to academic faculty members, student societies and student service providers (such as financial aid and careers services) have an important role to play in improving law student mental wellbeing – for example, by providing information and advice on career options and financial management. Strong relationships and clear referral processes among faculty members and student services professionals will also be an important element of measures to effectively address moderate+ student distress.

82 Web-based cognitive-behavioral programs for perfectionism have been found to be effective in reducing psychological distress in university students: see Natasha Radhu et al, 'Evaluating a Web-Based Cognitive-Behavioral Therapy for Maladaptive Perfectionism in University Students' (2012) 60 *Journal of American College Health* 357; Chantal Arpin-Cribbie, Jane Irvine and Paul Ritvo, 'Web-Based Cognitive-Behavioral Therapy for Perfectionism: A Randomized Controlled Trial' (2012) 22 *Psychotherapy Research* 194.

Further research is needed to better understand the sources of financial stress impacting upon students' stress and anxiety levels. However, it can be noted that it does not appear to be debt levels per se that are associated with elevated distress so much as *perceived* levels of financial stress.[83] Financial planning and advice on budgeting; textbook exchange services; scholarships and access to loan facilities may be of assistance. It would also be important to ensure that key learning resources and opportunities (such as intern/externships) are accessible free of charge for students experiencing financial stress. Regular career planning advice during law school and even access to the university's career services after graduation may help to alleviate student stress about future employment prospects. Low levels of peer engagement were also significantly associated with moderate+ levels of both stress and anxiety and it would be worth exploring in further studies whether perceived financial stress prevents students from engaging as closely with their law school peers as they might do otherwise. In the meantime, law student societies and staff with responsibility for co-curricular programs would be well advised to ensure that their activities are accessible to students experiencing financial stress.

Specific peer engagement strategies designed for students with family care responsibilities – such as a student society subgroup or network – may also be valuable in addressing moderate+ anxiety symptoms.[84] Caring for family member/s five or more hours per week was the only demographic variable significantly associated on multivariate analysis with elevated distress.[85] Further research is needed to ascertain whether it is caring for children or for adults that increases the risk of elevated anxiety symptoms and there is some indication in our study that it is the latter. Investigation of the connections between family care responsibilities and financial stress would also be useful. In the meantime, targeted support, peer engagement opportunities and increased study flexibility for students with family care responsibilities may be of benefit in reducing moderate+ anxiety symptoms.

As shown in Table 14, low levels of intrinsic motivation for study in law were significantly associated with moderate+ levels of depression. In SDT terms, low levels of intrinsic motivation undermine mental wellbeing because the person is acting primarily to gain approval from others or to avoid a negative feeling or emotion.[86] These are not energising or psychologically nourishing motivations because they do not enable the person to pursue their values and interests. In this sense, while the decision to study law might be 'self-chosen' for such students, it is not 'self-concordant' – it will not provide the psychological

83 See references about financial stress and psychological distress: above n 51.

84 As those with family care responsibilities are also a small proportion of enrolled law students, these students may feel that they have little in common with most of their peers – that is, there may be a range of factors contributing to their lower levels of peer engagement.

85 This factor was strongly associated with each of the forms of distress on univariate analysis, and remained significantly associated with moderate+ anxiety when other variables were accounted for.

86 Sheldon et al, 'Applying SDT', above n 19, 362–3.

nourishment of self-determined and self-determining action.[87] Again, individualised course advising and personal counselling may be of assistance for students experiencing moderate+ depressive symptoms; exploration of their true interests as well as options both within the course and outside of it may assist students to re-identify their interests and goals, which would in turn improve motivation for study in law. While our results cannot predict causality, SDT would posit that low levels of intrinsic motivation are a result of controlling social environments (that disengage people from their core values and developing interests). If this is the case, then measures to improve perceived autonomy support would also assist to address the low levels of intrinsic motivation experienced by students with moderate+ depressive symptoms.

Finally, moderate+ depressive symptoms were also significantly associated with both worry about comparisons and low course satisfaction, after other variables were taken into account. In one sense, the low levels of course satisfaction are understandable, given that these students are lacking motivation for study in law. However, our results indicate that these factors are independently associated with depressive symptoms and it would be worth investigating further which aspects of their law course are unsatisfying for students experiencing depression. It may be, for example, that experiencing depressive symptoms makes certain aspects of the course particularly difficult or onerous. The association between worry about comparisons and moderate+ depressive symptoms also warrants further investigation – for example, students experiencing depressive symptoms may be additionally worried that others appear to be enjoying their law course more, or completing its requirements more easily. Conversely, students with a tendency to worry about others' opinions of them and their performance may become increasingly distressed when they find themselves lacking interest in the course or otherwise struggling with it (perceived competence was also particularly low for students experiencing depressive symptoms on univariate analysis). Targeted academic skills support for underperforming students may be beneficial, as may general advice for all students at key points during the first year about the need to moderate performance and achievement expectations in the law school environment. Access to counselling services and workshops to assist students with high levels of interpersonal sensitivity (worry about others' perceptions) may also be helpful for law students experiencing moderate+ depression.

C Limitations of the Study

While the findings of this survey can be regarded as providing highly informative guidance for the development of effective responses and appropriate services to address the prevalence and needs of students experiencing mental health difficulties in law schools, the limitations of the study must be borne in mind. As with any cross-sectional exploratory survey, there are limitations to the design of the present study and the picture that it affords of law student distress.

87 Sheldon, 'Self-Concordance', above n 19, 77–9.

In particular, associations do not reveal causality. For example, we found a strong independent association between severe+ anxiety and non-agreement that you expect to practice law – it may be that not expecting to practice law causes elevated anxiety among students; alternatively, it may be that severe anxiety inhibits students from agreeing that they expect to practice law. Consequently, our findings about the factors associated with law student distress require further investigation, ideally in a longitudinal survey.

Our survey also bears the general limitations affecting voluntary surveys, particularly the possibility of participation bias. The gender-bias in this survey was previously noted. Further to this, it is possible that non-participating students may have differed from those who participated in the survey – for example, non-participants may have been less psychologically distressed (and hence less interested in a wellbeing survey) or more distressed (making participation more onerous). Measurement bias resulting from the self-reporting of psychological symptoms may also influence our survey results. For example, it is not known whether law students might over- or under-report symptoms of psychological distress. These limitations affect all voluntary surveys that capture a 'slice in time' snapshot of respondents' mental wellbeing, however comparative studies with non-law students and young people not involved in higher education would be useful.

X CONCLUSION

Law schools are now actively working to address law student distress. Over the past five years in particular, the number of curricular and co-curricular initiatives to promote resilience, 'vitality', self-management, reflection, engagement and positive professional identities has blossomed. It is not yet clear whether such initiatives are effective in reducing the distress levels of law students.[88] As Dammeyer and Nunez observed in 1999, understanding the degree and nature of law student distress is the critical first step without which 'systemic changes and specific therapeutic interventions … may be only partially effective. Conducting the necessary research will help avoid implementing potentially costly changes that ultimately prove ineffective'.[89] More than a decade later, we suggest that law-related psychological distress is still inadequately described. The research in the US by Krieger and Sheldon remains the exception, providing invaluable insight into the changes in motivations and values that negatively

88 It may never be possible to accurately measure the impact of such initiatives, as the background stressors affecting both law schools and law students are not static. Indeed, in the current economic climate, it might be a significant achievement if law schools do not record significant *increases* in law student psychological distress in the next few years.

89 Dammeyer and Nunez, above n 11, 72.

impact law students.[90] However, the applicability of those findings to Australian law schools had not been directly tested before the present study.

This study sought to investigate the various factors that the research literature suggests are associated with law student distress, and develop a model that could test their relative strengths and associations. In the current constrained international economic environment, which is impacting significantly on both higher education and legal professional services in Australia, we thought it important to include survey items that investigated worry about finances and job prospects as well as perceived autonomy support, motivations, expectations and personality orientations. We also wanted to explore factors that might prove to be protective of mental wellbeing in a law school context: course satisfaction, strong peer engagement, comprehending and coping, results satisfaction, and perceived competence in threshold skills. Putting all of these factors into the 'mix' proved valuable in enabling our study to identify the subtle differences in the factors associated with elevated depressive, anxiety and stress symptoms respectively, and also with the different levels of distress. This is important information, indicating that responses and interventions tailored for the different forms and levels of distress assessed through the DASS-21 are likely to be most effective.

Our findings present strong support for Sheldon and Krieger's explanation of law student distress based on SDT and, in particular, the importance to law student wellbeing of perceived autonomy support and intrinsic motivation. While ours was not a longitudinal study, we found a strong independent association between severe+ symptoms of depression and anxiety and students' perceptions of the law school and their teachers as controlling, unnecessarily restrictive and as not affording reasonable choices and alternatives to students. SDT would predict that intrinsic motivations would be undermined in such an environment and, again, this thesis is supported by our finding that moderate+ depressive symptoms were significantly associated with low levels of intrinsic motivation. In addition, our research findings suggest that the current financial and economic pressures affecting tertiary students warrant consideration in efforts to improve law student wellbeing. Financial stress (self-perceived), worry about job prospects, and family care responsibilities are strongly associated with moderate+ symptoms of stress or anxiety. Other distinct risk factors identified in this study included not agreeing that you expect to practice law, low peer engagement, and extremely high self-expectations (measured against an ideal or others' perceptions).

These findings offer direction to law schools for designing effective wellbeing interventions. In particular, as discussed above, they indicate that training for both academic and professional staff that promotes autonomy supportive teaching, curriculum design and service delivery may assist to reduce law students' levels of psychological distress. A range of concurrent professional services for students will also be beneficial: in addition to the need for

90 Sheldon and Krieger, 'Changes in Motivation', above n 8; Sheldon and Krieger, 'Negative Effects of Legal Education', above n 10.

counselling services, our findings indicate that high quality career services and financial advice services may assist to reduce students' distress levels. Course flexibility and measures to improve peer engagement, particularly for those students with family care responsibilities or perceived financial stress, may also contribute to wellbeing. Academic counselling is indicated for those who, whatever their original reasons for wanting to study law, now have low levels of intrinsic motivation. These students are also likely to report low course satisfaction, so there are benefits to law schools as well as to students from developing opportunities and appropriate language for law teachers to talk freely with students about their motivations, goals and values in law.

Notwithstanding the limitations of the study design, the findings from the present study make an important contribution to the developing evidence base on factors associated with law student distress. Understanding such factors is essential for the development of effective responses and appropriate services to address the prevalence and needs of students experiencing mental health difficulties in law schools. Our findings also serve to identify important topics for further research across different law school contexts, and provide a source of comparative data for subsequent empirical studies of student mental wellbeing in legal education and higher education generally. In this way, it is hoped that the findings from our study will help to ensure efforts to improve student wellbeing are likely to be effective and of benefit to those in most need.

XI APPENDICES

Appendix A Statistical Analysis

Data were analysed using SPSS (version 21). DASS-21 raw scores for each of the scales were categorised as normal, mild, moderate, severe and extremely severe based on the cut-off scores provided in the DASS manual.[91] The primary analysis compared the responses of students recording moderate to extremely severe symptoms of depression, anxiety or stress with responses of those with normal to mild DASS scores. Supplementary analyses were conducted comparing responses of participants with severe to extremely severe DASS-21 levels and those of participants with normal to moderate symptoms.

Eleven exploratory study variables were comprised of a composite score derived from three to eight survey items.[92] Scores for each variable were categorised – for example, into low or high quartiles, or agreement/non-agreement – based on relative frequencies of responses in the study population. Cronbach's coefficient alphas were calculated for each variable: all scales

91 Lovibond and Lovibond, above n 58.

92 In addition to the DASS-21 and the Ryff's PWBS, the survey included subscales for: perfectionism; worry about comparisons; results satisfaction; perceived competence; intrinsic motivation; career direction; course satisfaction; peer engagement; comprehending and coping; prepared and present; and teacher/faculty support.

recorded good to excellent internal reliability.[93] All ordinal variables in the survey were similarly collapsed into categorical variables to represent a high or low quartile of participant data for that variable. Proportions and correlations between categorical variables were examined using Chi square tests or Fisher's exact where appropriate. Crude odds ratios with 95 per cent confidence intervals were calculated to examine univariate associations between student distress and demographic, participant-related and course-related factors. Logistic regression was used to determine adjusted estimates of associations for symptoms of depression, anxiety and stress. All variables that were found on univariate analysis to be significantly associated with elevated symptoms – significant association defined as $p \leq 0.05$ – were entered into a multivariate logistic regression model to explore the respective contributions of each variable once other factors had been adjusted for. Regression model fit indices were ascertained from the Hosmer–Lemeshow test of goodness of fit. Absence of multicollinearity was ascertained from a correlation matrix, as well as inspection of the changes between regression coefficients in different models and standard errors in the model. A summary stepwise forward Logistic Regression model for each analysis was also performed to confirm independent variables were the best predictors for outcome (data not shown).

Appendix B
Strength of Associations between DASS-21 Scores and Ryff's PWBS

	Personal Growth	Environmental Mastery	Positive Relationships	Self-acceptance	Purpose	Autonomy
DASS-21 Moderate+ Depression Symptoms	-.277**	-.691**	-.433**	-.600**	-.294**	-.200**
DASS-21 Moderate+ Anxiety Symptoms	-0.11	-.518**	-.314**	-.368**	-0.07	-.224**
DASS-21 Moderate+ Stress Symptoms	0.02	-.534**	-.320**	-.387**	0.03	-.245**
** Correlation is significant at the 0.01 level (2-tailed)						

93 Cronbach's alpha were: perfectionism 0.92; worry about comparisons 0.80; results satisfaction 0.79; perceived competence 0.78; career direction 0.69; course satisfaction 0.77; peer engagement 0.72; coping and comprehending 0.68; prepared and present 0.60; teacher/faculty support 0.83

Appendix C
Factors Associated with Elevated Depressive Symptoms

Table C1: Proportion of participants with elevated depressive symptoms by main demographic characteristics

	Moderate+ Depression Symptoms	Severe+ Depression Symptoms
Gender		
Female	28% (55/199)	10% (19/199)
Male	25% (26/105)	8% (8/105)
Age		
Less than 25 years	29% (65/228)	9% (21/228)
25 years and older	20% (16/79)	8% (6/79)
Living Situation		
Uni college	38% (6/16)	19% (3/16)
With domestic partner	9% (3/33)	3% (1/33)
With parents	30% (36/119)	12% (14/119)
Sharing with friends	25% (27/108)	6% (6/108)
Alone	32% (10/31)	13% (4/31)
Fee type		
Commonwealth Supported Place	26% (42/162)	6% (10/162)
Full fee	28% (40/143)	13% (18/143)
On average how many hours per week do you spend studying outside of class time?		
Less than five	55% (6/11)	27% (3/11)
5–9	29% (14/49)	10% (5/49)
10–14	23% (18/79)	10% (8/79)
15–19	23% (19/81)	6% (5/81)
20 hours or more	28% (25/88)	8% (7/88)
On average how many hours per week do you work in paid employment?		
Less than 5	28% (29/102)	8% (8/102)
5–9	26% (23/87)	6% (5/87)
10–14	25% (18/72)	11% (8/72)
15–19	21% (7/34)	18% (6/34)
20 hours or more	38% (5/13)	8% (1/13)
On average how many hours per week do you spend caring for family members?		
Less than 5	24% (57/237)	6% (15/237)
5–9	35% (14/40)	18% (7/40)
10–14	31% (4/13)	23% (3/13)
15–19	80% (4/5)	40% (2/5)
20 hours or more	20% (2/10)	10% (1/10)

Table C2: Proportion of participants with elevated depressive symptoms by participant-related variables

	Moderate+ Depression Symptoms	Severe+ Depression Symptoms
Intrinsic motivation score		
Average–high	18% (43/239)	4% (10/239)
Low **	52% (38/73)	25% (18/73)
Career direction rating		
Average–high	21% (52/244)	8% (20/244)
Low**	45% (30/67)	12% (8/67)
Expect to practise law		
Agree	20% (47/236)	7% (17/236)
Not agree	46% (35/76)	14% (11/76)
Worry about job prospects		
Not at all true–Slightly true	11% (7/65)	0% (0/65)
Moderately true–Very true	30% (75/250)	11% (28/250)
Financial stress		
Not at all true	11% (7/61)	0% (0/61)
Slightly true–Very true	30% (75/254)	11% (28/254)
Perfectionism rating		
High*	23% (19/83)	7% (6/83)
Average–low	26% (59/224)	9% (20/224)
Worry about comparisons		
High*	44% (41/93)	20% (19/93)
Average–low	18% (39/219)	4% (9/219)
**represents bottom quartile of participants from related survey score * represents top quartile of participants from related survey score		

Table C3: Proportion of participants with elevated depression symptoms by course-related variables

	Moderate+ Depression Symptoms	Severe+ Depression Symptoms
Teacher and faculty support		
Average–high	19% (44/228)	4% (9/228)
Low**	47% (35/75)	25% (19/75)
Course satisfaction		
Average–high	17% (40/229)	0% (1/229)
Low**	53% (41/78)	21% (16/78)
Peer engagement		
Average–high	19% (42/221)	5% (11/221)
Low**	44% (40/90)	19% (17/90)
Comprehending and coping		
Average–high	21% (50/243)	6% (14/243)
Low**	46% (32/69)	20% (14/69)

Prepared and present		
Average–high	22% (50/226)	9% (20/226)
Low**	37% (31/84)	10% (8/84)
Perceived Competence		
Average–high	19% (42/223)	4% (10/223)
Low**	45% (40/88)	20% (18/88)
Results Satisfaction		
Average–high	23% (53/230)	7% (15/230)
Low**	37% (29/79)	16% (13/79)
**represents bottom quartile of participants from related survey score		

Appendix D
Factors Associated with Elevated Anxiety Symptoms

Table D1: Proportion of participants with elevated anxiety symptoms by main demographic characteristics

	Moderate+ Anxiety Symptoms	Severe+ Anxiety Symptoms
Gender		
Female	37% (73/200)	16% (31/200)
Male	26% (28/106)	11% (12/106)
Age		
Up to 24 years	34% (80/232)	16% (37/232)
Over 24 years	27% (21/77)	8% (6/77)
Living situation		
Uni college	50% (8/16)	13% (2/16)
With domestic partner	27% (9/33)	9% (3/33)
With parents	36% (43/120)	18% (21/120)
Sharing with friends	32% (35/110)	15% (16/110)
Alone	23% (7/30)	7% (2/30)
Fee type		
CSP	35% (58/164)	15% (24/164)
Full fee	31% (44/143)	14% (20/143)
On average how many hours per week studying outside of class time?		
Less than five	64% (7/11)	36% (4/11)
5–9	31% (15/49)	16% (8/49)
10–14	26% (21/80)	13% (10/80)
15–19	31% (25/81)	9% (7/81)
20 hours or more	38% (34/89)	17% (15/89)
On average how many hours per week do you work in paid employment?		
Less than five	26% (27/104)	11% (11/104)
5–9	30% (26/87)	14% (12/87)
10–14	37% (27/73)	16% (12/73)
15–19	47% (15/32)	19% (6/32)
20 hours or more	50% (7/14)	21% (3/14)

On average how many hours per week do you spend caring for family members?		
Less than five	28% (66/239)	11% (27/239)
5–9	45% (18/40)	18% (7/40)
10–14	79% (11/14)	50% (7/14)
15–19	40% (2/5)	20% (1/5)
20 hours or more	44% (4/9)	11% (1/9)

Table D2: Proportion of participants with elevated anxiety symptoms by participant-related variables

	Moderate+ Anxiety Symptoms	**Severe+ Anxiety Symptoms**
Intrinsic motivation score		
Average–high	29% (71/241)	12% (30/241)
Low **	43% (31/72)	19% (14/72)
Career direction rating		
Average–high	30% (73/245)	12% (29/245)
Low**	43% (29/67)	22% (15/67)
Expect to practise law		
Agree	31% (73/237)	11% (25/237)
Not agree	38% (29/76)	25% (19/76)
Worry about job prospects		
Not at all true–Slightly true	19% (12/64)	5% (3/64)
Moderately true–Very true	36% (91/250)	16% (41/250)
Financial stress		
Not at all true	16% (10/62)	6% (4/62)
Slightly true–Very true	37% (93/254)	16% (40/254)
Perfectionism rating		
High*	35% (29/83)	16% (13/83)
Average–low	32% (71/225)	12% (28/225)
Worry about comparisons		
High*	51% (47/93)	26% (24/93)
Average–low	25% (55/220)	9% (20/220)
**represents bottom quartile of participants from related survey score * represents top quartile of participants from related survey score		

Table D3: Proportion of participants with elevated anxiety symptoms analysis by course-related variables

	Moderate+ Anxiety Symptoms	Severe+ Anxiety Symptoms
Teacher and faculty support		
Average–high	27% (61/227)	9% (20/227)
Low**	51% (39/76)	29% (22/76)
Course satisfaction		
Average–high	28% (64/230)	10% (23/230)
Low**	48% (37/77)	25% (19/77)
Peer engagement		
Average–high	23% (51/221)	10% (22/221)
Low**	57% (51/90)	23% (21/90)
Comprehending and coping		
Average–high	30% (72/243)	11% (27/243)
Low**	45% (31/69)	25% (17/69)
Prepared and present		
Average–high	33% (76/227)	13% (30/227)
Low**	31% (26/83)	17% (14/83)
Perceived competence		
Average–high	30% (67/224)	12% (26/224)
Low**	40% (35/88)	20% (18/88)
Results satisfaction		
Average–high	29% (68/232)	12% (28/232)
Low**	40% (31/77)	18% (14/77)
**represents bottom quartile of participants from related survey score		

Appendix E
Factors Associated with Elevated Stress Symptoms

Table E1: Proportion of participants with elevated stress symptoms by demographic characteristics

	Moderate+ Stress Symptoms	Severe+ Stress Symptoms
Gender		
Female	33% (65/199)	15% (30/199)
Male	25% (26/106)	10% (11/106)
Age		
Up to 24 years	29% (67/230)	15% (34/230)
Over 24 years	31% (24/78)	9% (7/78)
Living situation		
Uni college	40% (6/15)	27% (4/15)
With domestic partner	24% (8/34)	12% (4/34)
With parents	31% (38/121)	16% (19/121)
Sharing with friends	28% (30/108)	10% (11/108)
Alone	33% (10/30)	13% (4/30)

Fee type		
CSP	27% (45/164)	14% (23/164)
Full fee	33% (47/142)	13% (19/142)
On average how many hours per week studying outside of class time?		
Less than five	55% (6/11)	36% (4/11)
5–9	26% (13/50)	14% (7/50)
10–14	24% (19/80)	10% (8/80)
15–19	24% (19/79)	9% (7/79)
20 hours or more	39% (35/89)	18% (16/89)
On average how many hours per week do you work in paid employment?		
Less than five	23% (23/102)	13% (13/102)
5–9	32% (28/88)	11% (10/88)
10–14	31% (22/71)	14% (10/71)
15–19	38% (13/34)	24% (8/34)
20 hours or more	43% (6/14)	7% (1/14)
On average how many hours per week do you spend caring for family members?		
Less than five	27% (63/237)	12% (28/237)
5–9	38% (15/40)	15% (6/40)
10–14	50% (7/14)	29% (4/14)
15–19	60% (3/5)	20% (1/5)
20 hours or more	40% (4/10)	30% (3/10)

Table E2: Proportion of participants with elevated stress symptoms analysis by participant-related variables

	Moderate+ Stress Symptoms	**Severe+ Stress Symptoms**
Intrinsic motivation score		
Average–high	26% (63/240)	11% (27/240)
Low **	42% (31/73)	21% (15/73)
Career direction rating		
Average–high	27% (67/244)	14% (33/244)
Low**	38% (26/68)	13% (9/68)
Expect to practise law		
Agree	27% (63/235)	12% (29/235)
Not agree	38% (30/78)	17% (13/78)
Worry about job prospects		
Not at all true–Slightly true	17% (11/64)	6% (4/64)
Moderately true–Very true	33% (83/252)	15% (38/252)
Financial stress		
Not at all true	10% (6/62)	3% (2/62)
Slightly true–Very true	37% (93/254)	14% (35/254)
Perfectionism rating		
High*	39% (32/83)	22% (18/83)
Average–low	26% (59/226)	9% (21/226)

Worry about comparisons		
High*	48% (44/91)	26% (24/91)
Average–low	23% (50/222)	7% (16/222)
**represents bottom quartile of participants from related survey score * represents top quartile of participants from related survey score		

Table E3: Proportion of participants with elevated stress symptoms analysis by course-related variables

	Moderate+ Stress Symptoms	Severe+ Stress Symptoms
Teacher and faculty support		
Average–high	22% (50/226)	9% (20/226)
Low**	51% (40/78)	26% (20/78)
Course satisfaction		
Average–high	25% (57/229)	12% (27/229)
Low**	46% (36/79)	19% (15/79)
Peer engagement		
Average–high	22% (49/220)	10% (21/220)
Low**	49% (45/91)	23% (21/91)
Comprehending and coping		
Average–high	23% (57/244)	10% (25/244)
Low**	54% (37/68)	25% (17/68)
Prepared and present		
Average–high	30% (68/227)	14% (32/227)
Low**	30% (25/83)	12% (10/83)
Perceived competence		
Average–high	24% (54/221)	10% (23/221)
Low**	43% (39/91)	21% (19/91)
Results Satisfaction		
Average–high	28% (64/230)	12% (28/230)
Low**	35% (28/79)	16% (13/79)
**represents bottom quartile of participants from related survey score		

Appendix F
Odds Ratios for Reasons for Studying Law and Elevated Depressive Symptoms

	Moderate+ Depression Symptoms: Odds Ratio	*p* value	Severe+ Depression Symptoms: Odds Ratio	*p* value
I am in law school now because I would feel guilty, ashamed or anxious if I weren't. That is, one reason I'm in law school now is that I feel I 'should' do this course, even though I'm not sure I want to.				
Not at all **Slightly true–Extremely true**	**1** **5.1 [3.0-8.8]**	**<0.01**	**1** **9.0 [3.7-22.2]**	**<0.01**
I am in law school now because I can't see any better options at this time. That is, one reason I'm in law school now is because I satisfied the entry requirements, and the other work/study options available to me are not more attractive.				
Not at all **Slightly true–Extremely true**	**1** **2.6 [1.3-3.9]**	**<0.01**	**1** **3.6 [1.3-9.9]**	**<0.01**
I am in law school now because someone else wants me to be, or thinks I should be. That is, one reason I'm in law school now is the urgings or desires of others (such as family, friends, or mentors).				
Not at all **Slightly true–Extremely true**	**1** **2.9 [1.7-4.8]**	**<0.01**	1 2.2 [1.0-4.7]	0.06
I am in law school now because of the rewards (such as the high income, luxuries, or status) that it may produce. That is, one reason I'm in law school now is because I expect to obtain later advantage or compensation as a result.				
Not at all **Slightly true–Extremely true**	1 1.0 [0.6-1.9]	1.00	1 1.7 [0.6-5.0]	0.47
I am in law school now because of the enjoyment or stimulation that the law provides me. That is, one reason I'm in law school now is because I find it really interesting to study law.				
Extremely true **Not at all–Very true**	1 1.4 [0.8-2.5]	0.26	1 1.3 [0.5-3.1]	0.67
I am in law school now because I really believe that it's an important thing to do. That is, one reason I'm in law school now is because I believe it is valuable and useful to understand law.				
Extremely true **Not at all-Very true**	1 0.8 [0.4-1.4]	0.46	1 1.1 [0.4-2.5]	0.82
Note: Statistically significant results are presented in bold type.				