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How Personality Traits and Affective States Influence a Student's Outlook on Life after University; A Correlational Study

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ABSTRACT

This correlational study examined the relationships between Personality, Optimism, Hope and Anxiety in relation to a student's outlook on life after University. The aim of the present study was derived from previous studies suggesting how positive affective states such as optimism and hope have important psychological benefits which can also predict a more favourable future. Hypotheses were created in order to make assumptions about the potential findings and they were all met with the exception of one. There were 214 respondents acquired through convenience sampling and they completed an 81-item questionnaire comprised of five separate scales corresponding to the five measures of the study. The main findings showed that on average, respondents were optimistic and hopeful but were also moderately anxious. The optimism and hope measures were most strongly correlated to a positive outlook on life and significant correlations between all of the independent variables were found, showing multicollinearity. Upon multiple regression analysis, it was found that Hope (Agency) was the largest predicting variable whereas Anxiety was not found to be a significant predictor. Adequate suggestions for future research were made in relation to the methodological issues raised along the way and derived from findings of previous studies.

KEY WORDS

PERSONALITY	OPTIMISM	HOPE	ANXIETY	STUDENT	OUTLOOK	CORRELATION

INTRODUCTION

Optimism and Hope are key elements to positive psychological functioning (Segerstrom et al., 1998; Montgomery et al., 2003) and are shown to help people be more adaptive to negative or stressful situations (Scheier and Carver, 1987; Solberg Nes et al., 2009). The concepts of Optimism and Hope have stimulated a great deal of research in recent years, finding that these human strengths can improve well-being and act as a buffer against psychological disorders like anxiety and depression. (Seligman and Csikszentmihalyi, 2000; Kwon, 2000; Chang, 2003).

Background of Variables

Personality is a 'socially revealed hierarchical integration of the innate dispositions and habit reaction tendencies of the individual' (Gibb, 1940:253), traits are assumed to be cross-situationally stable tendencies to repeat patterns of behaviour in response to similar situations over a lifetime (Johnson, 1997). Researchers have successfully analysed the domain of personality, concluding they are dispositional and can be adequately measured using five superordinate constructs (Digman, 1990). The five-factor model consists of Extraversion (sociability, outgoing), Neuroticism (lack of emotional stability, impulsiveness), Conscientiousness (performance, dependability), Agreeableness (cooperative, likeable) and Openness (intellectual curiosity, active imagination) (Goldberg, 1990; Judge et al., 1999; McCrae and Costa, 1997).

Optimism can be defined by two competing sources; one is Scheier and Carver's (1985) definition of Optimism and Pessimism as generalised, cross-situational positive and negative outcome expectancies (Chang et al., 1997) and those who encompass moderate to high levels of Optimism generally believe that their future will be prosperous and favourable. Scheier and Carver view these constructs as future-orientated and that they are dispositional polar opposite cognitive-affective traits, on a unidimensional continuum. In contrast, Dember et al. (1989) defines Optimism and Pessimism more broadly as positive and negative outlooks on life, encompassing them as present perceptions and views the constructs as polar opposites of one single trait and in a state-like way, based upon daily events and situations. Overall, Optimism refers to a positive outlook upon events and the future, whether it is dispositional or not.

Hope reflects an increased sense of mental enthusiasm and pathing routes to reach goals, it has been defined by Snyder et al. (1991:571) as a human strength manifested in a 'derived sense of successful (a) agency (goal-directed determination) and (b) pathways planning of ways to meet goals)', in simpler terms, it is the perceived ability to motivate oneself towards desired goals (Snyder, 2002). Stotland (1969:2) simply described hope as 'an expectation greater than zero of achieving a goal.' Alarcon et al. (2013) explains that hope reflects two related but distinct sub-dimensions, Snyder et al. (1991) also adding that neither agency nor pathways alone is sufficient to produce high levels of hope, suggesting that a person would need moderate levels of both to be truly hopeful. Hope has routes throughout Psychology, Philosophy, Religion and Literature (Aronson, 1999; Magaletta and Oliver, 1999)

The hope construct has been shown to bear resemblance to optimism, both being positive outcome expectancies that help people engage in coordinated,

adaptive responses to the challenges and opportunities they face in everyday life (Bailis and Chipperfield, 2012). However, it has been clarified that Hope is a related but independent construct (Arnau et al., 2006). Snyder (1995:356) proposed that hope is a cognitive process in relation to how people think about and make way for positive goals whereas optimism is 'basically an excuse-like strategy where people distance themselves from negative outcomes.' Optimism and Hope can be supported by Bandura's (1982, 1994) Self-Efficacy positive psychological model, defined by one's beliefs surrounding their capabilities, competence and performance or chances of successfully accomplishing a task and producing favourable outcomes. This model plays a vital role in life, as it determines one's thoughts, feelings and behaviour in relation to beliefs about oneself (Bandura et al., 1997). Werner (2000) proposed that as higher levels of optimism and hope creates better coping mechanisms and strategies, the increased coping reservoir builds resilience and increases self-efficacy.

Anxiety is one of the most common psychological disorders in the world (Hammand, 2016) and is becoming an increasingly recognised problem in university students (Barratt, 2000; Office for National Statistics, 2018). Anxiety is defined by a feeling of worry and unease about uncertain outcomes (NHS, 2018), it is reflected in a person's fears regarding their future (Schmid et al., 2011). The Psychological Foundation of Australia (2013) listed symptoms associated with Anxiety as being apprehensive, pounding of the heart and worry in relation to performance. Although short-term anxiety is a natural emotional response that can help improve alertness and drive performance, long-term it is debilitating and leads to many disadvantages (Bleakley, 2013; Huberty, 2009). Those with an anxiety disorder report reduced life satisfaction than those without the disorder (Barrera and Norton, 2009). High rates of depression, anxiety and stress carry major implications among university students not only on educational achievement but psychological comorbidity (Bayram and Bilgel, 2008).

Increasingly, obtaining a university degree is seen as the key to success (Thurber and Walton, 2012). Students enrol at university in order to have brighter professional career prospects, therefore the dependent variable for the present study is a student's outlook on life after graduating from university. The term 'outlook' in this study refers to how a person views their future prospects whether its positive or negative using the Employment Hope Scale (EHS-14; Hong and Choi, 2013).

Previous Research

A large amount of empirical research has discovered that students with high levels of optimism, hope and social support can attribute to their academic success (Chemers et al., 2001; Juntunen and Wettersten, 2006; Katz, 2002; Rogerson-Revell, 2007; Snyder et al., 1997), more adaptive coping methods (Affleck and Tennen, 1996; Irving et al., 1998) and reduced likelihood of development of psychological disorders. In relation to the dependent variable; Outlook on Life, evidence shows that levels of optimism, pessimism and hope can significantly improve overall life satisfaction (Cohen and Wills, 1985; Diener and Diener, 1995) and influence a person's overall outlook on life (Carver and Scheier, 2014). Optimists tend to trust that their future will be favourable whereas pessimists tend to dwell on the negative aspects of their life, believing bad things will happen and 'behave in ways that allow them to prepare for worst' (Forgeard and Seligman, 2012:108). An

increasing number of studies have found hope to serve as a motivational factor to help initiate and sustain action towards goals and has been linked to greater health, happiness, perseverance and adjustment, both physically and psychologically (Peterson, 2000). Snyder et al. (1991) found that students with higher hope utilised more active and approach-related coping methods, viewing stressors as challenges as opposed to threats thus having the ability to overcome negative feelings by constructing effective solutions. On the contrary, Chang (1998) found that students low in hope related to self-criticism and social withdrawal.

Undergraduate students have to make important decisions that affect their long-term futures in regard to career and in making such decisions, students require social support from friends, family and faculty (Stevic and Ward, 2008). During this transition, evidence suggests that students are especially susceptible to depression, anxiety and stress, in particular comorbidity of depression and anxiety (Adewuya et al., 2006; Beiter et al., 2015; Nerdrum et al., 2006; Stanley and Manthorpe, 2001). The Office for National Statistics (2018) have stated that a growing body of research has found that mental health problems are increasing among students in higher education institutions. Students need to develop ways to cope with the psychological changes connected to the development of an autonomous personal life (Bayram and Bilgel, 2008).

Methodological Issues

Mainstream Psychological research and theory concentrates on issues such as mental disorders and abnormalities rather than the execution of response patterns, acquired knowledge or positive psychology (Bandura, 1982). Seligman (1998:29) launched the positive psychology movement, proposing that positive emotions should be given a greater emphasis, calling for 'massive research on human strength and virtue.' Furthermore, in spite of the worldwide prevalence of Anxiety, it does not receive as much recognition as other major disorders as it is not as visible despite it being just as disabling (Bystritsky et al., 2013). In spite of the fact that problems surrounding students and mental health have generated some public concern in recent years, it still represents a neglected public health problem and holds implications for campus health services and policy-making (Poch et al., 2004; Stewart-Bowen et al., 2000). Due to this, students need to develop intervention methods and ways in which will help them cope with the psychological changes connected to the development of an autonomous personal life and reduce the likelihood of developing mental health problems (Bayram and Bilgel, 2008; Gjerde, 1993).

Chang et al. (1994) argued that the area of research surrounding Optimism and Pessimism suffers from no generally accepted definitions and also the dimensionality of the constructs. Marshall et al. (1992) believed that Optimism was a blend of the Personality traits Extraversion and Neuroticism, and as mentioned before Scheier and Carver (1985) measures Optimism and Pessimism as opposites of one trait. However, later work has since challenged this and tended to support the view that Optimism to be distinct of those traits (Alarcon et al., 2013; Kam and Meyers, 2012). Dember et al. (1989) scrapped the view of Optimism and Pessimism as traits altogether and believed the constructs were state-like and independent from each other. Chang et al. (1997) replicated the earlier study by Chang et al. (1994) to challenge the dominant views on Optimism and Pessimism from Scheier and Carver

(1985) and Dember et al. (1989) to construct a bidimensional measure called the Extended Life orientation test (ELOT). ELOT consisted of items from both Scheier and Carver's (1985) Life Orientation Test (LOT) and Dember's (1989) Optimism/Pessimism Scale (OPS) that best the definition of optimism and pessimism as partially independent constructs (Fischer and Leitenberg, 1986; Mroczek et al., 1993). For the purpose of overcoming some of these issues, the present study uses Chang et al. (1997)'s ELOT scale.

Carver and Scheier (2014) suggest that being optimistic also has its drawbacks, explaining that those who adapt a less optimistic outlook usually feel better about the negative outcomes and setbacks they experience. Sweeny et al. (2006) supports this by explaining that by lowering expectations and anticipating bad news, people can feel elated when their outcome exceeds expectations, allowing people to prepare for and ultimately avoid potential disappointment. Bleakley (2013) as mentioned, also stated that Anxiety is not always a negative experience but that it can also drive people to perform better and be more alert and aware of their surroundings.

The present study

With these experimental difficulties in mind, the rationale behind the present study is derived from the lack of research regarding the use of optimism and hope together in addition to negative affect (Anxiety). There is also a lack of research regarding the importance of students' mental health and how positive psychology can create more positive, prosperous futures by combating mental health problems and reducing the likelihood of them developing in future. The present study instead aims to gain a further insight into how positive affective states such as Optimism and Hope can reflect upon a student's Personality and positively predict a positive Outlook on Life, with the detrimental effect of Anxiety in mind. There have not been studies conducted previously that have looked at the same specific group of variables nor used the exact same scales together therefore this study will provide a unique approach to today's students regarding positive and negative effects on Outlook on Life using a correlational design.

A qualitative approach would not have been appropriate for this mode of research due to the aim of the study. This study aims to investigate certain correlations and relationships between a set of different variables, only a quantitative study can provide the numbers possible for these correlations to be found. Qualitative research is too subjective and cannot be statistically representable of large populations (Anderson, 2010).

Hypotheses

H1: Optimism and Hope will be significantly, positively correlated with each other.

H2: Optimism and Hope will be significantly, positively correlated with a positive Outlook on Life (DV).

H3: Optimism and Hope will be significant predictors of a positive Outlook on Life (DV).

H4: Anxiety will be significantly negatively correlated with both Optimism and Hope.

H5: Anxiety will be significantly and negatively correlated with a positive Outlook on Life (DV).

H6: Anxiety will be a significant, negative predictor of a positive Outlook on Life (DV).

METHOD

Design

This study employed a non-experimental, correlational design in the form of multiple regression analysis to investigate the relationships between positive and negative affective states reflect upon a student's personality and influence and predict a hopeful Outlook on Life after University. The independent variables are 'Personality', 'Optimism', 'Hope' and 'Anxiety', the dependent variable is 'Employment Hope', hereafter referred to as 'Outlook on Life'.

Participants

The respondents used in this study were recruited through convenience sampling, N = 214, (74% Female, 25% Male, 1% Other, *M* age = 21.81, *SD* = 4.36) (See Appendix 1). Exclusion criteria indicated participants were required to be over 18 years old and be a current student. In regard to sample size, Cohen (1992) recommended that the minimum number of respondents needed for research was 67, thus the sample size for this study is more than adequate.

Materials

The Big Five Inventory – 2 Extra-Short Form (BFI-2-XS; Soto and John, 2017; Appendix 2). This 15-item self-report is a shortened version of the original 44-item BFI (John and Srivastava, 1999) measured personality. It contained statements that assessed five domains Extraversion, Neuroticism, Agreeableness, Conscientiousness and Openness. Questions are both positively and negatively worded to minimise acquiescent responding (Jackson and Messick, 1958). Respondents were given statements to describe oneself such as 'tends to be quiet' or 'Has difficulty getting started on tasks' and asked to answer using a 5-point likert scale 1: 'Strongly disagree' to 5: 'Strongly agree'. Soto and John (2017) found this scale to have test-retest reliability of α =.76 in a university sample (range = .69-.83).

The Extended Life Orientation Test (ELOT; Chang et al., 1997. Appendix 3). Chang et al. (1997) devised a bidimensional scale made up of 8 items from Dember's (1989) 56-item OPS scale and 7 items from Scheier and Carver's (1985) 12-item Life Orientation Test plus 5 filler items to create a 20-item scale that most accurately measured optimism and pessimism as positive and negative outcome expectancies. The original likert scale used was 1: 'Definitely False' to 4: 'Definitely True', however the researcher added a middle option 3: 'Neither true nor false' to keep it consistent with the other scales. Respondents were given statements such as 'In uncertain times, I usually expect the best' and 'I am always optimistic about the future' to measure levels of optimism and pessimism. 5 filler questions such as 'It is easy for me to relax' were included in order to maintain engagement and in some cases may be used to stop the respondent guessing what the questionnaire is about if the researcher were to choose to keep the identity of the survey anonymous. Test-retest reliability was approximately α =.70 (range = .50-.91).

Future Scale/Adult Hope Scale (AHS; Synder et al., 1991. Appendix 4). The future scale is a 12-item questionnaire measuring one's levels of hope. Of the 12 items, 4 measure agency, 4 measure pathways and 4 are filler items to control response bias. The original scale used an 8-point likert scale ranging from 'Definitely False' to 'Definitely True' however, the researcher used a similar but shorter 5-point likert scale ranging from 'Definitely false' to 'Definitely true' with a middle option 'Neither true nor false'. This was preferable as it still gave respondents the options necessary and to maintain flow within the overall questionnaire. Questions are both positively and negatively worded to maintain respondent attention, statements include 'I usually find myself worrying about something' and 'I meet the goals I set myself'. Snyder et al. (1991) show that the scale is internally consistent, with alpha coefficient α =.79 (range = .74 – .84) for the scale as a whole, for agency subscale it ranged from .71 to .76 and pathways .63 to .80.

Depression, Anxiety and Stress Scale (DASS-21; Lovibond and Lovibond, 1995. Appendix 5). The DASS-21 is a 21-item scale measuring severity of the core symptoms of depression, anxiety and stress over the prior week. There are 7 questions measuring each component and they are in a mixed arrangement thus reducing response bias. The questionnaire asks respondents to answer statements in regard to what extent they had experienced a certain feeling or experience in the past week, such as 'I found myself getting agitated' and 'I felt that I was using a lot of nervous energy'. Respondents were given a 4-point likert scale ranging from 1: 'Did not apply to me at all' to 4: 'Applied to me very much, or most of the time'. Answers are scored and added together to get an idea of the level of negative feelings the respondent had. This self-administered instrument has well-established psychometric properties, showing very high internal consistency (α =.88) (Tran et al., 2013).

The Short Employment Hope Scale (EHS-14; Hong and Choi, 2013. Appendix 6). This 14-item scale was chosen to measure respondents' outlook on life after university. It is used to measure a person's hope levels towards employment which is found to be relevant in regard to measuring how a student may feel towards their future due to main goal of attending university is to have the ability to be successfully employed afterwards. Hong et al. (2009) found that there were 2 components of the EHS; psychological empowerment and process of moving toward future goals, capturing the agency and pathways components of Hope (Snyder et al., 1991). The original scale uses a slider scale from 1-10 on how much they agree on each statement, 0 being 'strongly disagree' to 5 being 'neutral' and all the way to 10 'strongly agree'. This scale was changed to use a 5-point likert scale, 1: 'Strongly disagree' – 5: 'Strongly agree' to maintain consistency. Statements were included such as 'I feel energised when I think about future achievement with my job', the word 'job' was changed to 'degree' to better suit the target audience. Internal consistency for EHS was extremely high overall (α = .94); pathways and empowerment subscales also revealed high internal consistency (α = .93, .90, respectively).

Procedure

The series of scales were combined to create one 81-item questionnaire (excl. basic demographics. Appendix 7) which was constructed on Qualtrics. Potential respondents were discovered through the distribution of a Qualtrics URL,

published on the Manchester Metropolitan University Psychology Participation Pool, privately messaged to known students and shared on social media websites such as Facebook, Twitter, Instagram and Reddit. The URL for the study redirected respondents to the questionnaire supported by Qualtrics and they were first presented with the participation sheet that comprised of information regarding the nature of the study, participation requirements and confidentiality of their data. Consent was explained also in the participation information sheet and they would have had to understood and consented to the study prior to participation. Respondents were made aware of the aims of the study before beginning and no deception occurred throughout. Although this study does not at any point place respondents at risk, some questions could have been perceived as triggering therefore counselling services were listed at the end of the information sheet if any distress was encountered as a result of participation.

Once respondents consented to the study, they were asked to provide some basic demographics such as their age, preferred gender and Faculty. Respondents were also given the opportunity to withdraw from the study provided that they created a 6-digit unique identifier which would be used to identify their data if they were to choose to withdraw after participation. Since providing a unique code was optional, respondents were made aware that if they chose to not provide a unique code, that it would be impossible for the research team to identify and remove their data as their responses were anonymous. Following completion, participations were debriefed and thanked for their contribution. (See Appendices 8 and 9 for Participation Information Sheet and Consent Form).

Ethical Considerations

The researcher applied for Ethics Approval via EthOS in order to gain approval to conduct the present study, it was signed by the researcher, supervisor and administration (see Appendix 10 and 11 for Insurance Checklist and EthOS Approval). The application of Ethics adheres to the British Psychological Society Code of Human Research Ethics (BPS, 2014) as well as complying with Manchester Metropolitan University's Academic Ethical Framework and their Guideline's for Good Research Practice. All data was kept anonymous due to the non-use of personal information, all anonymous data was saved on a password secured computer in an encrypted file, the data has only been viewed by the research team.

RESULTS

Data Preparation

At the time of data collection there were 258 responses exported from Qualtrics to Microsoft Excel which enabled the researcher to tidy the mass of raw data, organise the separate scales and discard 44 incomplete responses to have a total of 214 complete, valid responses. Data was then transferred to IBM SPSS version 25.0 in order to reverse items that were false-keyed, then analyses such as reliability analysis, descriptive statistics, correlation coefficients and multiple linear forward regressions were performed in relation to research aim and hypotheses.

Reliability Analysis and Descriptive Statistics

Scale internal reliability analysis was conducted to determine reliability of measures prior to analysis and descriptive statistics was produced accordingly.

Table 1: Descriptive Statistics, Scoring and Correlations with Dependent Variable.

| | | | Measure | | | | | | | |
| | | Total | | | | | Scale | | | Correlation |
Measures	α	Mean	SD	Min	Max	Mean	SD	Min	Max	with Life
Personality BFI										
Extraversion	0.74	8.71	2.97	3.00	15.00	2.90	0.99	1.00	5.00	.42**
Agreeableness	0.59	10.80	2.59	3.00	15.00	3.60	0.86	1.00	5.00	.24**
Consciousness	0.63	9.36	2.60	4.00	15.00	3.12	0.87	1.33	5.00	.38**
Neuroticism	0.80	10.67	3.08	3.00	15.00	3.56	1.03	1.00	5.00	-.40**
Openness	0.55	10.75	2.33	5.00	15.00	3.58	0.78	1.67	5.00	.13*
Outlook Expectancies										
Optimism	0.82	20.05	4.45	7.00	29.00	3.34	0.74	1.17	4.83	.61**
Pessimism	0.91	25.98	7.64	10.00	45.00	2.89	0.85	1.11	5.00	-.57**
Hope Agency	0.77	14.00	3.14	4.00	20.00	3.50	0.79	1.00	5.00	.70**
Hope Pathway	0.73	14.46	2.68	4.00	20.00	3.62	0.67	1.00	5.00	.56**
Negative Feelings										
Stress	0.85	16.52	4.97	7.00	28.00	2.36	0.71	1.00	4.00	-.23**
Anxiety	0.87	14.51	5.19	7.00	28.00	2.07	0.74	1.00	4.00	-.21**
Depression	0.92	15.61	6.03	7.00	28.00	2.23	0.86	1.00	4.00	-.54**
Employability Hope										
Life	0.94	54.44	11.44	19.00	70.00	3.89	0.82	1.36	5.00	

Note. ** = Correlation is significant at the 0.01 level. * = Correlation is significant at 0.05 level (both 1-tailed).
N = 214 in all cases

Table 1 shows how respondents, on average scored on each subscale and the correlation between each subscale and the dependent variable; Outlook on Life (DV). Internal consistencies for the scales ranged from poor (.55) to excellent (.94) (George and Mallery, 2003).

Personality – BFI
Measures for the Personality Scale (BFI) were less consistently reliable than the others, ranging from α = .55 to .80. 'Agreeableness', 'Conscientiousness' and 'Openness' in particular had questionable reliability ranging from α = .55 to .63, not reaching the widely desired threshold of .70 (George and Mallery, 2003), first recommended by Nunnally (1973). Extraversion and Neuroticism were the most reliable variables, α = .74, .80 respectively. Mean scoring showed where respondents on average scored on the 5-point likert scale provided; 1 = 'Strongly Disagree' – 5 = 'Strongly Agree'. Extraversion, Neuroticism and Conscientiousness were most strongly correlated with DV (.42, -.40 and .38 respectively). Agreeableness and Openness were much weaker (.24 and .13). All personality

measures were significant at the *p* .01 level with the exception of Openness, which was significant at the *p* .05 level.

Outlook Expectancies – Optimism, Pessimism and Hope

Optimism and Pessimism showed very good reliability, α = .82 and .91 respectively. Hope also had desirable reliability, α = .77 (agency), .73 (pathways). 'These scales maintained adequate internal consistency reliabilities as assessed with the widely accepted .70 coefficient alpha standard' (Spector et al., 2002:458, George and Mallery, 2003). Overall, respondents were on average more optimistic and hopeful than pessimistic as the positive expectancies passed the midway point of the 5-point likert scale, leaning more towards 'Agree'. All of the outcome expectancies were significantly correlated with DV, Hope Agency in particular was the strongest (.70) followed by Optimism (.61). All outcome expectancies were highly significant, *p* <.001.

Negative Feelings (DASS)

Depression, Anxiety and Stress were among some of the most reliable measures in this study, they all had excellent reliability (α =.92, .87, .85 respectively). Respondents on average stayed around the midway point on the scoring for this 4-point likert scale. The likert scale used for this scale was different to the others; 1= 'Did not apply to me at all', 2 = 'Applied to me to some degree or some of the time' and so on, indicating that on average, respondents moderately experienced these negative feelings, Stress in particular. As this scale is negatively worded and negatively scored it was negatively correlated with the DV. Depression was the strongest correlation from the DASS-21 scale $r(214) = -.54$, Stress and Anxiety were fairly weak correlations $r(214) = -.23$ and $-.21$ respectively.

Outlook on Life (EHS)

The Employment Hope Scale (Hong and Choi, 2013) was the most reliable measure in this study α = .94 and was highly significant at the *p*<.001 level. Respondents on average scored positively on this scale meaning they were more hopeful of their career prospects than unhopeful.

Table 2. Correlations amongst Outcome Expectancies and Negative Feelings

	1	2	3	4	5	6	7
1. Optimism							
2. Pathways	.55**						
3. Agency	.60**	.65**					
4. Pessimism	-.78**	-.56**	-.54**				
5. Stress	-.45**	-.20**	-.27**	.49**			
6. Anxiety	-.33**	-.17**	-.13*	.40**	.75**		
7. Depression	-.60**	-.61**	-.48**	.65**	.62**	.55**	

**. Correlation is significant at the 0.01 level. *. Correlation is significant at the 0.05 level (both 1-tailed).

Table 2 displays the correlations between the independent variables with the exception of Personality due to it being used predominantly for reflection rather than

a significant predicting variable. It shows that there is a strong, significant negative correlation between Optimism and Pessimism, *r*(214) -.78, *p* <.001. There was also a strong, significant positive correlation between Stress and Anxiety *r*(214) .75, *p* <.001 which was expected. These Correlations show multicollinearity in the independent variables. All correlations between variables were highly significant at the *p* <.001 level with the exception of the correlation between Anxiety and Agency, which was found to be significant at the *p* .05 level.

Multiple Regression

Prior to performing multiple regression, correlations were found between many of the independent variables showing multicollinearity (Table 2) and the dependent variable (Table 1). Multiple regression is a statistical, versatile technique used to predict a score on one variable (dependent) based upon the scores on multiple other variables (independent) (Cohen and Cohen, 1983; Hair et al., 1998). In this study, the scores of each independent variable scale were looked at to explore how much they explained the score on Outlook on Life. Forward method of regression was preferred as it is tractable, and it shows the significant variables in order of how much they predicted the dependent variable. In accordance with the calculation provided by Green (1991), the minimum number of participants required for multiple regression for the present study was 109 (104 + number of scales).

Table 3a. Linear Regression Coefficients and Predicting Value of Personality.

Personality		Adj. R²	B	B (SE)	*t*	β
Step 1	*(Constant)*	.17	40.44	2.21	18.31	
	Extraversion		1.69	0.24	6.7	.42**
Step 2	*(Constant)*	.24	55.14	3.9	14.07	
	Extraversion		1.22	0.25	4.94	0.32**
	Neuroticism		-1.06	0.24	-4.46	-0.29**
Step 3	*(Constant)*	.28	45.83	4.69	9.77	
	Extraversion		1.01	0.25	4.08	0.26**
	Neuroticism		-0.86	0.24	-3.61	-0.23**
	Conscientiousness		0.96	0.28	3.43	0.22**
Step 4	*(Constant)*	.30	39.68	5.35	7.42	
	Extraversion		1	0.25	4.1	0.26**
	Neuroticism		-0.81	0.24	-3.4	-0.22**
	Conscientiousness		0.86	0.28	3.08	0.2**
	Agreeableness		0.61	0.26	2.31	0.14*

Note. ** = Correlation is significant at the 0.01 level. * = Correlation is significant at 0.05 level (both 1-tailed).
Dependent Variable (Tables 3a-5b): Outlook on Life

Table 3b. Change Statistics of Personality with Dependent Variable

	Change Statistics	

Model	R² Change	F Change	Sig.
Extraversion	0.18	44.88	<.001
Neuroticism	0.07	19.87	<.001
Conscientiousness	0.04	11.78	.001
Agreeableness	0.02	5.33	.022

Tables 3a and 3b display multiple regression analysis of the personality scale (BFI-2-XS) with the dependent variable (EHS-14). The tables shows that Extraversion is the variable that predicts Outlook on Life (DV) in this particular scale, $F(1, 212) = 44.88$, $p <.001$. The adjusted R² shows that Extraversion accounted for 17% of the variance on its own, however as more significant variables were added to this forward method, it increased to 24% with Neuroticism, R² change = .07, $F (2, 211)$ Change = 19.87, $p <.001$. Step 3 shows that Conscientiousness increases variance to 28%, R² change = .04, F(3, 210) Change = 11.78, p = .001 and finally, Step 4 shows the last significant variable for BFI, Agreeableness contributes 2% of variance, R² change: .02, F(4, 209) Change = 5.33, p = .022. The fifth personality trait, Openness was excluded from this analysis as it did not significantly contribute variance nor predicted the dependent variable.

Table 4a. Linear Regression Coefficients and Predicting Value of Outlook Expectancies

Outcome Expectancies		Adj. R²	B	B (SE)	t	β
Step 1	(Constant)	.49	18.55	2.55	7.28	
	Agency		2.56	0.18	14.45	0.7**
Step 2	(Constant)	.56	11.31	2.7	4.2	
	Agency		1.94	0.2	9.74	0.53**
	Optimism		0.8	0.14	5.68	0.31**

Note. ** = Correlation is significant at the 0.01 level. * = Correlation is significant at 0.05 level (both 1-tailed).

Table 4b. Change Statistics of Outlook Expectancies

	Change Statistics		
Model	R² Change	F Change	Sig.
a. Agency	0.5	208.65	<.001
b. Optimism	0.07	32.31	<.001

Tables 4a and 4b show the Multiple regression analysis for the Outcome Expectancies scales; ELOT and Future Scale. In these tables, it is clearly seen that Hope – Agency is the largest contributing predictor of the DV. Agency contributes 49% of the variance alone, $F(1, 212)$ Change = 208.65, $p <.001$. Optimism merely added 7% in comparison, R² change = .07, $F(2, 211)$ Change= 32.31, $p <.001$. Although it was seen before that Hope Pathways and Pessimism were strongly significantly correlated with the DV (Table 1), in this regression analysis they were excluded due to not being significant predictors of Outlook on Life.

Table 5a. Linear Regression Coefficients and Predicting Value of Negative Feelings

Negative Feelings		Adj. R²	B	B (SE)	t	β
Step 1	*(Constant)*	.29	70.49	1.83	38.46	
	Depression		-1.03	0.11	-9.38	-.54**
Step 2	*(Constant)*	.30	67.21	2.32	29.04	
	Depression		-1.22	0.14	-8.86	.64**
	Stress		0.38	0.17	2.28	.17*

Note. ** = Correlation is significant at the 0.01 level. * = Correlation is significant at 0.05 level (both 1-tailed).

Table 5b. Change Statistics of Negative Feelings

	Change Statistics		
Model	R² Change	F Change	Sig.
a. Depression	0.29	87.97	<.001
b. Stress	0.02	5.21	.023

Tables 5a and 5b display the multiple regression analysis for the DASS-21 Scale with the dependent variable. Depression was seen to be the most significant negatively predicting variable, adding 29% of the variance alone $F(1, 212)$ Change = 87.97, p <.001. The variance increased to 30% with the addition of Stress R² change = .02, $F(2, 211)$ Change = 5.21, p = .023. Surprisingly, Anxiety was excluded from analysis due to not being a significantly predictor of Outlook on Life despite being significantly correlated (Table 1).

Overall, the results indicated substantial differences regarding the correlations between independent and dependent variable and the predicting value of them. Hope – Agency was found to be the strongest positive predictor and Depression was the strongest negative predictor of a positive outlook on life after university across the 214 respondents. Surprisingly, despite H5 assuming Anxiety will be strongly, significantly negatively correlated with outlook, the correlation was small, and it was found to be an insignificant predictor of the dependent variable (H6) therefore was automatically excluded from analysis.

DISCUSSION

Key findings

The present study examined the relationship between one's personality, optimism, hope and anxiety, looking at how they influence one's outlook on life. In relation to the hypotheses, the present study supported hypotheses 1, 2 and 3 in relation to the outcome expectancies: there was a significant, positive relationship between Optimism and Hope (H1), they were also both significantly positively correlated to (H2) and predicted (H3) the dependent variable. Findings also supported hypothesis 4 and 5 in relation to Anxiety: Anxiety was significantly and negatively correlated to both positive outcome expectancies Optimism and Hope (H4) and it was significantly, negatively correlated with a positive outlook on life (H5), although the correlation was smaller than initially expected. However, findings failed to accept hypothesis 6, finding that Anxiety was not a significant predictor of the dependent variable (H6).

The relationships found are supported by previous research that proposed that Optimism and Hope were related constructs (Arnau et al., 2006; Bailis and Chipperfield, 2012) and that higher rates of these constructs improve overall life satisfaction and are strongly associated with a positive outlook of the future (Carver and Scheier, 2014; Cohen and Wills, 1985; Diener and Diener, 1995). In contrast, the present study found that Anxiety is negatively correlated with a positive outlook on life, supported by Barrera and Norton (2009) who state that Anxiety has a negative effect of life satisfaction and those with anxiety disorders report a worse quality of life. The present study found that mean scoring for the DASS-21 showed that on average, the 214 respondents had mild-moderate rates of Depression, Anxiety and Stress (table 1), supporting literature expressing that students in particular were especially susceptible to these feelings (Adewuya et al., 2006; Barratt, 2000; Beiter et al;., 2015; Nerdrum et al., 2006; Stanley and Manthorpe, 2001).

Strengths of present study

The number of responses required to perform multiple regression was met and more: the number needed for the present study was 109 and the number of responses for the present study was 214 (Green, 1991).This study also provided a unique insight into the effect of positive and negative affects influence a student's outlook on life after university using an employment hope scale, due to the main goal of attending university is to be able to have a prosperous, professional career in the future. The present study also was not restricted to students studying in the UK, a handful of the students were from overseas and across the world due to the impact of social media and the internet.

The present study overcame some previous problems with the definitions and dimensionality of several scales such as the measure of Personality and Optimism. This study used a highly reliable and widely used 'Big Five Inventory' to measure personality as here have been issues surrounding what could be considered a trait before the mass majority of researchers came to accept a five-factor model. Moreover, there were problems concerning the definitions and dimensionality of Optimism and Pessimism that this study attempted to overcome. Due to two conflicting, highly criticised views on these positive and negative constructs provided by Scheier and Carver (1985) who viewed optimism and pessimism as two opposites of a single trait on a unidimensional continuum whereas Dember et al. (1989) didn't view them as traits at all, they were viewed as state-like and independent from one another. The present study attempted to overcome this by using the Extended Life Orientation test (ELOT; Chang et al., 1997) which was created by combining the most reliable measures from both the Life Orientation Test (Scheier and Carver, 1985) and the Optimism/Pessimism Scale (Dember et al., 1989) to create a bidimensional scale viewing optimism and pessimism as partially independent constructs.

Criticisms of present study

Although the present study surpassed Cohen's (1992) recommendation of 67 participants, a larger number would have provided a larger effect size (Cohen, 1990). According to Pedhazur and Schelkin (1991), the general rule of thumb is 50 respondents per factor, the present study had five factors (scales) therefore it did not reach the recommended figure of 250 respondents for this study. However, survey researchers have found that in a number of social science disciplines, there has

been a gradual reduction in survey participation, making it more difficult to reach higher number of respondents (Brick and Williams, 2013; National Research Council, 2013). Another criticism would be the hope-orientated scales: The Future Scale and EHS-14 both measure one's hope using agency and pathways subscales which would explain the significant correlation found between the two. The EHS also does not have much previous research utilising it, therefore the researcher could have used a different scale/dependent variable that would have had more theoretical grounding.

Sweeny et al. (2006) stated that the majority of research published in relation to exploring shifts from future outlooks came from Western Cultures and although the need for positive outcome expectancies is most likely universal, the results are likely to vary cross-culturally. Although a strength of this study was that responses were not restricted to one geographical area, there was still not enough respondents from other significant parts of the world to show cultural differences. With this in mind, it would be an interesting proposal for future studies to replicate the present study or conduct a similar study in different parts of the world to look at potential cultural differences with a much larger sample size. Another criticism worth noting is that the researcher missed out an item on the ELOT scale; it is a filler item therefore does not disrupt the results of the study but is human error which would need to be avoided in the future (see Appendix 3).

Suggestions for future research

Reflecting upon the present study and considering that the outcome expectancies and negative feelings aren't entirely dispositional (Chang, 1994; Change et al., 1997; Dember et al., 1989), it would be interesting to have a longitudinal version of this study that measured the levels of optimism, hope and anxiety on a group of students across different year groups. Sweeny et al. (2006) proposed that final year students tended to shelve their positive outcome expectancies and become increasingly anxious as the proximity of graduation grows nearer, they found no significant difference in first and second year students. An interesting addition to this that could produce interesting results would be if the study included positive psychological interventions for respondents whom scored high on pessimism, depression, anxiety and stress and low on optimism and hope in the first stage of the study. Positive psychological interventions are seen to be effective in reducing depressive symptoms and relieving anxiety and stress (Sin and Lyubomirsky, 2009), therefore by doing this it could positively increase their outlook on life in the future and compare the results over time in comparison to control groups.

Reflecting upon Bayram and Bilgel's (2008) study mentioned in the introduction, they found that there were statistically significant differences in depression, anxiety and stress scores among students of different courses. Scores were higher amongst those who studied in a social and political science background in comparison to those studying basic sciences, and engineering. Gender differences were also discovered in levels of depression, anxiety and stress, stating that stress and anxiety scores were higher among females. On the contrary, Sympson (1999) did not find gender differences. The present study did look at the Faculty of respondents, however due to approximately 33% of respondents being in a Psychological background and the other two thirds were entirely mixed with no other significant majority, this was excluded from analysis. In addition to this, the

present study also had data concerning the gender of respondents, however, did not choose to explore gender differences in levels of depression, anxiety or stress nor the positive outcome expectancies, Optimism and Hope at this present time.

As it was mentioned before that Anxiety does not always need to be a negative experience and that it can be beneficial in raising alertness and increasing performance short-term (Bleakley, 2013). Reflecting upon this and the findings in the present study of respondents being moderately anxious, it would be an interesting concept to use the levels of anxiety and stress of respondents in conjunction with the Yerkes-Dodson Law (Yerkes and Dodson, 1908). The Yerkes-Dodson law refers to how certain balance of arousal levels (anxiety) is related to optimal performance and motivation to achieve, suggesting that having too low or too high levels of anxiety is detrimental to performance but somewhere a balance is optimal (Teigen, 1994). Comparing students' levels of anxiety in relation to this law and academic achievement would provide a better understanding of how anxiety can be beneficial to a certain extent and also the factors needed for achievement.

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