An Investigation into the Relationship between Trait Resilience and Subjective Well-Being, through Social Connectedness and Social Support.

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ABSTRACT

A lack of previous literature on the interactions between social connectedness, resilience, social support and subjective well-being (SWB), inspired the present study. The aim was to investigate whether trait resilient individuals, have higher levels of SWB, and if these higher levels are affected by similarly greater perceived social support and social connectedness. 149 participants were recruited through social media and the university participation pool, including 118 females and 31 males of a range of employment statuses. Online questionnaires were completed through Qualtrics. The questionnaire measures included the Ego-Resilience Scale, the Social Connectedness Scale, the Multidimensional Scale of Perceived Social Support, the Satisfaction with Life Scale and the Positive and Negative Affect Schedule. A hierarchical multiple regression was used and found that those high in trait-resilience, experience greater SWB, and this effect is mediated by greater levels of social connectedness. Social support was found not to be a significant predictor of SWB. These findings suggest that social support is not as significant to the relationship as is suggested within previous literature. It also highlights a need for future research to look further into the association with social connectedness, as there is a lack of literature on the topic.

KEY WORDS:	TRAIT RESILIENCE	SOCIAL CONNECTEDNESS	SOCIAL SUPPORT	SUBJECTIVE WELL-BEING	LIFE SATISFACTION

Introduction

Throughout one's life, every person will experience a range of stressful or negative situations, however, some individuals are able to cope and withstand this adversity better than others, by not experiencing negative effects on mental health as a result of it (Herrman et al., 2011). These differences in coping effectiveness can be explained by resilience. Resilience is defined as the ability to overcome adversity or stress within one person's life, using coping mechanisms to maintain positive psychological health (Rutter, 2006). The way that resilience interacts with or can have effects on an individual's life can depend on the context of the situation, and therefore may not be represented in the same way across a whole life span (Herrman et al., 2011). Within resilience, different types also exist, process resilience and trait resilience. Trait resilience takes the view that resilience exists as a personality trait, which helps those with it to cope with hardships in a positive way through adjustment and development (Hu et al., 2015). Whereas process resilience is explained as instead of a trait of an individual, resilience exists as a resource people use to get through tough times, with the individual's personality making resilience more or less likely (Richards, 2015). Resilience, therefore, is a factor in how an individual copes with life's challenges, and can provide multiple benefits for an individual.

Previous research has looked into the effects of how having resilience as a trait can benefit individuals. Protective factors are factors that help to change an individual's response to a negative event, in order to avoid negative outcomes (Rutter, 1985). Multiple pieces of research have explained that resilience exists as a protective factor for a range of outcomes (Arnup and Bowles, 2016; Clements-Nolle and Waddington, 2019; Izydorczyk et al., 2018). One example is resilience acting as a protective factor within the teaching profession, helping teachers to cope better with the stressors of the job and furthermore reduce the likelihood they will want to leave the profession (Arnup and Bowles, 2016). Clements-Nolle and Waddington (2019) found that resilience also strongly protects against psychological distress, following exposure to negative experiences during childhood. Similarly, a link has been found between resilience and psychological health, where those with higher levels of resilience experienced less mental disorder symptoms following a negative or stressful life event (Hjemdal et al., 2006). These pieces of research suggest that resilience acts as a protective factor, as it is highlighted that those who are more resilient, cope better with adverse situations, and therefore experience less of the negative impact of them compared to those with low resilience.

Further to acting as a protective factor of psychological health, a large body of research also exists on the relationship between resilience and subjective well-being (SWB). SWB involves an individual's own perceptions of their life and refers to one experiencing positive emotions and low levels of negative emotions, as well as a high level of life satisfaction (Diener et al., 2002). This link expands on resilience acting as a protective factor for psychological health, by also linking positive emotions and life satisfaction into the relationship. Mak et al. (2011) describes how those with higher levels of resilience reported significantly more positive emotions and levels of life satisfaction, whilst simultaneously reporting lower levels of depression. The combination of these findings is also known as SWB. Similarly, Kirmani et al. (2015) discovered a significant positive relationship between resilience and SWB. This was explained to be due to those who are high in resilience being

more successful at efficiently facing adversities, therefore increasing how happy they feel with their life and consequently increasing their SWB (Kirmani et al., 2015). These two examples of studies suggest a strong relationship between those who are trait resilient and improved SWB. However, a similarly large number of studies suggest that other factors are involved in the promotion of this relationship, such as cultural orientation and self-esteem (Utsey et al., 2008; Stumblingbear-Riddle and Romans, 2012). Further to this, Mak et al. (2011) reported that the relationship between resilience and well-being was mediated by positive views of the individual, their world, and their future. Similarly, Utsey et al. (2008) discovered that optimism also significantly interacted with the relationship. These pieces of research suggest that although a relationship does exist between resilience and SWB, other mechanisms may also be playing a role, which need to be considered. Overall, resilience appears to act as a protective factor for SWB, in that those who are more resilient are also associated with having greater SWB.

The Broaden-and-Build Theory of Positive Emotions explains that resilience can be built through the experiencing of positive emotions and the use of social and psychological resources, which enhance an individual's well-being (Fredrickson, 2001). One social resource that people use for coping is social support (Chao, 2011). Social support is not always clearly defined within the literature, however, it is generally referred to as the act of using social relationships and networks as resources to provide support for coping with both day-to-day life and in crisis situations (House et al., 1988; Lin and Ensel, 1989). Having high levels of social support has also been linked to increases in well-being. One study on homeless individuals found that reduced social support was associated with reduced well-being, and oppositely when social support increased, well-being did respectively (Johnstone et al., 2015). In addition, a similar result was found within a school environment, where social support consisting of support from both classmates and teachers, was significantly correlated with SWB (Tian et al., 2015). This supports the Broaden-and-Build Theory of Positive Emotions, as the research highlights how having increased social resources also leads to improved well-being.

As social support is a coping mechanism it has also been suggested to be involved in the relationship between SWB and resilience. Social support has been previously found to be positively correlated with both resilience and SWB, in a range of different samples (Khan and Husain, 2010; Brailovskaia et al., 2017; Satici, 2016). In another piece of literature, social support and SWB contributed to 34% of the variance in resilience, implying further that the three are related (Stumblingbear-Riddle and Romans, 2012). Alternatively, this piece of literature suggests an opposite effect, in which social support and SWB act upon resilience, instead of the more predominantly reported opposite way around (Mak et al., 2011; Khan and Husain, 2010). The Broaden-and-Build Theory of Positive Emotions is again supported, as it is shown how having and using social resources can help to improve well-being. A review of these previous pieces of literature suggest that resilience, social support and SWB are all related, however the strength of the relationship has been contradicted. Kahn and Husain (2010) explain that although a correlation was found between social support, resilience and SWB, it was not a strong correlation. Additionally, Malkoç and Yalçin (2015) state that the relationship between resilience and well-being was only partially mediated by social support. Contradictions on the strength of the relationships suggests that other variables may also be involved.

The involvement of social support in the relationship between resilience and SWB is commonly supported. On the other hand, whilst some individuals have large social networks and receive large amounts of social support, other individuals can be surrounded by those offering social support and still feel that they are not socially connected (Ashida and Heaney, 2008; Richards, 2015). Social connectedness refers to one individual's own sense of belonging, and how in touch they feel with their social world (Lee and Robbins, 1998). These connections include relationships with friends and family, along with acquaintances and being members of different communities (Lee and Robbins, 1998). Although social connectedness is sometimes considered in the same way as social support within the literature, there are differences between the two. Connidis and Davies (1990) consider that having someone as a companion automatically doubles as a form of support, however social connectedness does not regard only the quantity of relationships but instead the individual's view of these relationships and their social world in general (Lee and Robbins, 1998). This allows someone to feel a lack of connectedness whilst simultaneously feeling supported or oppositely a lack of support whilst still being connected with others. A longitudinal study carried out by Jose et al. (2012) found that social connectedness was positively associated with well-being in adolescents, and that some of the most important aspects of connectedness involve family and school. Yoon et al. (2008) similarly explained that social connectedness acts as a mediator for SWB, specifically for acculturation, the process of adjusting to a new culture. This further emphasises social connectedness can be beneficial for improving SWB during stressful situations.

As social connectedness also acts as a facilitator for SWB, in a similar way to that of social support, it can be hypothesised that it would interact with resilience, again in a similar way. Previous research, looking into the interaction between social connectedness and resilience is lacking, however a couple of studies have begun to suggest an association. DiFulvio (2011) explains that in interviews carried out within the study, participants spoke about exercising resilience through being socially connected. It was also discovered, during a large study of adolescents in school, that connectedness, including parental, family and school connectedness, was a protective factor for emotional health, and was positively associated with resilience (Resnick et al., 1997). The two pieces of research indicate that a relationship may exist between those who are resilient and those who feel socially connected, where both interact and provide benefits to the individual. On the other hand, another piece of research found that within the homeless population, resilience was negatively correlated with connectedness, meaning that those with higher levels of resilience reported lower levels of connectedness, a finding that goes against the previous studies mentioned (Rew et al., 2001). Although this study was small and limited to one location and population, the results still contradict the little research on this topic and leave a gap for questions regarding the nature of the relationship. It also signifies that the research is not able to provide a definitive explanation of the relationship, as it is unknown if resilience leads to increased social connectedness, or if one increases at the expense of another. Suggestions in previous studies reveal that a relationship could exist between social connectedness and resilience, however, the lack of literature support makes it difficult to determine for sure.

Therefore, the present study attempts to further explain, and partially fill the previously mentioned gap in the literature. Some individual connections have been made and heavily researched in the past, such as those between resilience and SWB and SWB alongside social support. Whereas other relationships that are implied through previous literature lack supportive research. For example, the relationship between social connectedness and resilience is under researched. Furthermore, previous findings provide a contradictory review of the effects of the variables, such as social connectedness. It is highlighted that many studies of how social connectedness and social support interact with health, both psychological and physical, have been conducted; however, any research studying the two variables together is rare (Asante and Castillo, 2018). The present study investigates the interaction of the two variables, in a way that is lacking within previous literature. Similarly, research looking into the four factors, social support, social connectedness, resilience and SWB as a whole, is also lacking. Similarly missing, is the research going beyond whether or not a relationship exists, and exploring the way in which the variables interact with each other. Therefore, the present study aims to investigate whether individuals who are trait resilient possess higher subjective well-being, and if this is due to increased feelings of social support and feeling more socially connected. The following hypotheses for the current study were created following the considerations from above:

1. Higher trait resilience will predict greater subjective well-being.
2. Higher trait resilience will associate with greater social connectedness and greater levels of social support.
3. Greater social connectedness and use of social support will predict increased levels of subjective well-being among the sample.

Method
Design
The research design used in this project is a non-experimental correlational design. The current study was cross-sectional as it studied the participants at the present moment in time. The predictor variables were trait resilience, social connectedness, and perceived social support. The criterion variable was subjective well-being.

Sample
In total, 149 participants were recruited for this research. An ideal minimum sample of 98 participants had been calculated using Green's (1991) criteria and this was exceeded in order to provide an optimal opportunity for results. There were 31 males and 118 females who took part with ages ranging from 18-80, and a mean age of 33.7. Participants also had a range of employment statuses, the majority being students (64), followed by employed full time (34), employed part-time (24), self-employed (16), retired (6), unable to work (3), and unemployed (2). Participants were collected through opportunity sampling using the Manchester Metropolitan University Psychology Participation Pool. This involves current students taking part in studies in exchange for participation points, which allow them to upload their own studies to the pool in the future. Additionally, participants were collected through social media, specifically Facebook, to obtain a wider variety of ages and occupations (Appendix 11).

Materials

Data was collected through self-report using a questionnaire that was presented to participants online. Measures for resilience, perceived social support and social connectedness were used, alongside two questionnaires to measure SWB. These separately measured life satisfaction, and positive and negative affect.

The Ego Resilience Scale (Block and Kremen, 1996) (Appendix 6) is a self-report questionnaire, consisting of fourteen statements. Participants were instructed to indicate to what extent each statement applies to them. The scale ranged from 'Does not apply at all' (1) to 'Applies very strongly' (4), and measures an individual's' level of trait resilience. Scores for each item are totalled up, and are interpreted as higher scores indicating higher trait resilience. The reported reliability for the Ego Resilience Scale is satisfactory (α = .76) (Block and Kremen, 1996). The reliability of the scale when used in Denovan and Macaskill (2017) was also high, α = .89.

The Satisfaction with Life Scale (Diener et al., 1985) (Appendix 7) was also used. The self-report questionnaire consists of five statements and participants were asked to rate the extent to which they agree or disagree. The scale ranges from 'strongly disagree' (1) to 'strongly agree' (7) and the statements aim to assess the 'satisfaction with the respondent's life as a whole' (Pavot and Diener, 1993:1). The scores from each item are summed up, with higher scores signifying that an individual is more satisfied with their life. The scale has high established reliability with a result of α = .87, and is valid, with items accounting for 66% of the variance (Diener et al., 1985).

The Social Connectedness Scale (Lee and Robbins, 1995) (Appendix 8) is a self-report questionnaire. It involves eight statements that participants rated according to how strongly they agree or disagree. The scale ranged from 'strongly agree' (1) to 'strongly disagree' (6). Scores on the scale are added to create a total, where higher scores signify a stronger sense of social connectedness. The Social Connectedness Scale had a high established reliability of α = .91 and was also valid, as decided by a panel of judges (Lee and Robbins, 1995).

The Multidimensional Scale of Perceived Social Support (Zimet et al., 1988) (Appendix 9) is also a self-report questionnaire. It measures the extent to which an individual feels that they are socially supported by friends, family, and a significant other (Zimet et al., 1988). The questionnaire consists of 12 statements and asks participants to rate how they feel about each one. The scale ranges from 'very strongly disagree' (1) to 'very strongly agree' (7). The total score on the scale is calculated, with higher values indicating a higher level of perceived social support. The established reliability of the scale, measured using Cronbach's alpha, was high (α = .88), and the scale has strong validity (Zimet et al., 1988).

The final measure used in this project was The Positive and Negative Affect Schedule (Watson et al., 1988) (Appendix 10). This self-report questionnaire involved twenty descriptive words describing feelings and emotions. Participants were asked to indicate the extent to which they had felt that way over the past week. The scale ranged from 'very slightly or not at all' (1) to 'extremely' (5). The questions with positive words (1, 3, 5, 9, 10, 12, 14, 16, 17, and 19) were totalled alongside the questions with negative words (2, 4, 6, 7, 8, 11, 13, 15, 18, and 20) to create the positive affect and negative affect scores respectively. The established reliability for the scale was high with α = .87, for both positive and negative affect, and it has also

been reported that the scale is high in factor, item and external validity (Watson et al. 1988).

Ethical Considerations

Prior to data collection, the Manchester Metropolitan University (MMU) Psychology Department ethics committee reviewed a proposal of the current study and ethical approval was obtained (Appendix 1 and 2). Informed consent was obtained from all participants, through providing participant information sheets (Appendix 4) and a consent form (Appendix 3) on the first page of the online questionnaire. Participants remained anonymous as they created a unique ID code, using the day of the month they were born, the last two letters of their home postcode, and the last two numbers of their phone number. This allowed participants to maintain anonymity whilst also maintaining the ability to withdraw their data if they wished to do so. A debrief was also provided to participants on completion of the study (Appendix 5).

Procedure

Participants accessed the questionnaire online, through an anonymous Qualtrics link, either on the MMU Participation Pool or through social media. Participants were asked to read the participant information sheet and agree to take part by clicking the 'continue' option on the questionnaire. Following the agreement to take part, participants were presented with basic demographic questions, asking for age, gender, and employment status. The five questionnaires were then presented one by one on screen and following completion participants were asked to create their unique ID code. Finally, all participants were fully debriefed.

Results

Analysis Plan

Data was analysed using SPSS, carrying out hierarchical regressions on the data. A Hierarchical regression was used to determine the contribution of both resilience alone, as well as resilience alongside the other study variables, social connectedness and social support, to the effect on SWB. This method was selected as it previously was suggested that it is a suitable analysis for investigating moderating effects of variables (Frazier et al., 2004).

Reliability Analysis

Firstly, internal consistency analyses were carried out on all six of the measures used in the research, using Cronbach's Alpha. The reliability analysis results were high for all measures. For positive affect the reliability was $\alpha = .89$, for negative affect the reliability was $\alpha = .85$ and for life satisfaction, $\alpha = .87$. The reliability was high for resilience, social support, and social connectedness also. The reliability scores were $\alpha = .82$, $\alpha = .93$, and $\alpha = .94$, respectively.

Descriptive Statistics

Means and standard deviations were calculated for all of the study variables and are presented in Table 1 below.

Table 1.

Descriptive Statistics including Means and Standard Deviations (SD) for all Study Variables. (N = 149)

Variable	*M*	*SD*
Life Satisfaction	22.60	6.83
Positive Affect	30.69	7.66
Negative Affect	21.03	7.34
Resilience	39.97	6.36
Social Support	66.10	14.18
Social Connectedness	34.78	9.51

In order to analyse the data, a Pearson Correlation was used to calculate the correlations between all the study variables (Table 2). From Table 2 it can be seen that there was a medium positive correlation between life satisfaction and resilience $r(147) = .23$, $p = .002$, and between life satisfaction and social support, $r(147) = .34$, $p < .001$. A strong positive correlation was also found between life satisfaction and social connectedness, $r(147) = .48$, $p < .001$. A weak positive correlation was found between positive affect and social support, $r(147) = .16$, $p = .027$. A medium positive correlation was found between positive affect and social connectedness, $r(147) = .39$, $p < .001$, and a strong positive correlation was found between positive affect and resilience, $r(147) = .49$, $p < .001$. From Table 2 it can also be seen that there was a medium negative correlation between negative affect and resilience, $r(147) = -.30$, $p < .001$, as well as between negative affect and social support, $r(147) = -.28$, $p < .001$. A strong negative correlation was found between negative affect and social connectedness, $r(147) = -.51$, $p < .001$.

A strong positive correlation was found between positive affect and life satisfaction, $r(147) = .44$, $p < .001$. Oppositely, a strong negative correlation was found between life satisfaction and negative affect, $r(147) = -.50$, $p < .001$. Similarly, a strong negative correlation was found between positive affect and negative affect, $r(147) = -.41$, $p < .001$.

Table 2.

Correlations between all study variables.

Variable	Life Satisfaction	Positive Affect	Negative Affect	Resilience	Social Support	Social Connectedness
Life Satisfaction		.44**	-.50**	.23**	.34**	.48**
Positive Affect			-.41**	.49**	.16*	.39**
Negative Affect				-.30**	-.28**	-.51**
Resilience					.25*	.31**
Social Support						.42**
Social Connectedness						

Note. * indicates *p* < .05; ** indicates *p* < .001.

Regression Analysis

In order to investigate the relationship between SWB and the predictor variables, resilience, social connectedness and social support, three hierarchical multiple regressions were carried out. These regressions investigated the relationship between the predictor variables and life satisfaction, positive affect and negative affect; the three factors which when put together make up SWB. Each regression was carried out in two stages, where resilience was entered first in step 1, followed by social support and social connectedness, which were entered in step 2.

Prior to completing the hierarchical regression analyses, checks were performed to ensure the data was suitable for the regressions. Firstly, the regressions were checked for outliers and none were found for life satisfaction (Std. Residual Min = -3.10, Std. Residual Max = 2.27), positive affect (Std. Residual Min = -2.85, Std. Residual Max = 2.34), or negative affect (Std. Residual Min = -2.12, Std. Residual Max = 3.09). The assumption of no multicollinearity was also met for life satisfaction (Resilience, Tolerance = .89, VIF = 1.13; Social Support, Tolerance = .81, VIF = 1.24; Social connectedness, Tolerance = .78, VIF = 1.27), positive affect (Resilience, Tolerance = .89, VIF = 1.13; Social Support, Tolerance = .81, VIF = 1.24; Social connectedness, Tolerance = .78, VIF = 1.29), and negative affect (Resilience, Tolerance = .89, VIF = 1.13; Social support, Tolerance = .81, VIF = 1.24; Social connectedness, Tolerance = .78, VIF = 1.29). Thirdly, the assumption of independent errors was met for life satisfaction (Durbin-Watson = 1.88), positive affect (Durbin-Watson = 2.09), and negative affect (Durbin-Watson = 1.99). Finally, the assumption of linearity and homoscedasticity was met for all three regressions as indicated by the scatterplots of standardised residuals (Appendix 12).

The first regression looked at whether the predictor variables interacted with life satisfaction (Table 3). Resilience alone accounted for 5.4% of the variation in life satisfaction, and significantly contributed to the regression model $F(1,147) = 8.46$, $p < .01$. It was also found that resilience significantly predicted life satisfaction, $\beta = .23$, $t(147) = 3.61$, $p = .004$. The second stage involved the addition of social support and social connectedness, which significantly contribute to the regression model, $F(3,145) = 16.82$, $p < .001$. In the second step of the hierarchical regression, once social support and social connectedness were entered into the formula, resilience became insignificant $\beta = .07$, $t(145) = .96$, $p = .34$, and social connectedness significantly predicted life satisfaction, $\beta = .39$, $t(145) = 4.84$, $p < .001$. Social support did not significantly predict life satisfaction, $\beta = .16$, $t(145) = 1.94$, $p = .05$. According to the R Square Change, the addition of social support and social connectedness to the model, accounts for an additional 20.4% of the variation in life satisfaction and this change was significant, $\Delta R^2 = .24$, $p < .001$.

Table 3.
Hierarchical regression analysis for life satisfaction.

	B	SE B	β	t
Block 1 (adj R^2 = .05, p < .05)				
Resilience	.25	.09	.23	3.61**

	B	SE B	β	t
Block 2 (adj R^2 = .26, p < .001; ΔR^2 = .24, p < .001)				
Resilience	.08	.08	.07	.96
Social Support	.08	.04	.16	1.94
Social Connectedness	.28	.06	.39	4.84**

Note. * indicates p < .05; ** indicates p < .001.

The second hierarchical regression investigated positive affect (Table 4). Alone, resilience accounted for 24.2% of the variance in positive affect and contributes significantly to the regression, $F(1,147) = 46.84$, p < .001. Social support and social connectedness being added to the model also contributed significantly, $F(3,145) = 21.68$, p < .001. Again, resilience alone was a significant predictor of positive affect, β = .49, $t(145) = 6.84$, p < .001. This time, in stage two, when social support and social connectedness were added, resilience remained significant, β = .42, $t(145) = 5.71$, p < .001, and social connectedness was also a significant predictor, β = .29, $t(145) = 3.74$, p < .001. Social support was not a significant predictor of positive affect, β = .04, $t(145) = -.91$, p = .36. Adding social support and social connectedness to the model, accounted for an additional 6.8% of the variance, which was significant, ΔR^2 = .07, p = .001.

Table 4.
Hierarchical regression analysis for positive affect.

	B	SE B	β	t
Block 1 (adj R^2 = .24, p < .001)				
Resilience	.59	.09	.49	6.84**
Block 2 (adj R^2 = .30, p = .001; ΔR^2 = .07, p = .001)				
Resilience	.50	.09	.42	5.71**
Social Support	-.04	.04	.04	-.91
Social Connectedness	.24	.06	.29	3.74**

Note. * indicates p < .05; ** indicates p < .001.

The third Hierarchical regression investigated negative affect (Table 5). Resilience alone accounted for 8.8% of the variance in negative affect and significantly contributed to the regression, $F(1,147) = 14.16$, p < .001. In stage two, social support and social connectedness also contributed significantly, $F(3,145) = 19.00$, p < .001. Resilience alone was a significant predictor of negative affect, β = -.30, $t(145) = -3.76$, p < .001. Similarly to the results for life satisfaction, when social support and social connectedness were entered into the model, resilience became insignificant, β = -.15, $t(145) = -1.95$, p = .05. Social connectedness was a significant predictor of negative affect, β = -.44, $t(145) = -5.49$, p < .001, and social support was not, β = -.06, $t(145) = -.75$, p = .45. The addition of social support and social connectedness to the model accounted for an additional 19.4% of the variance, which was significant, ΔR^2 = .19, p < .001.

Table 5.
Hierarchical regression analysis for negative affect.

	B	SE B	β	t
Block 1 (adj R^2 = .08, p < .001)				
Resilience	-.34	.09	-.30	-3.76**
Block 2 (adj R^2 = .27, p < .001; ΔR^2 = .19, p < .001)				
Resilience	-.17	.09	-.15	-1.95
Social Support	-.03	.04	-.06	-0.75
Social Connectedness	-.34	.06	-.44	-5.49**

Note. * indicates p < .05; ** indicates p < .001.

Discussion

The primary aim of this research was to investigate whether those who are trait resilient possess greater subjective well-being, and if this is due to those individuals feeling more socially supported and socially connected. The findings illustrated that resilience was a significant predictor of subjective well-being. Additionally, both social support and social connectedness were positively and significantly associated with trait resilience. Furthermore, the results revealed that social connectedness was a significant predictor of subjective well-being, whilst perceived social support was not.

The first hypothesis in this project was supported, as it was discovered that high trait resilience is a significant predictor of SWB. This was established because trait resilience was a significant predictor for life satisfaction, positive affect and negative affect, the three aspects of SWB. This finding was consistent with previous research that investigated this association, as the majority of literature also explains that higher resilience is linked to greater SWB (Mak et al., 2011; Utsey et al., 2008; Kirmani et al., 2015). One explanation for this is that the relationship is due to those with high levels of trait resilience being able to cope better with stress and adversity, allowing them to also feel happier with their life and consequently increase their SWB (Kirmani et al., 2015). The current findings are consistent with these statements.

The present findings also support the second hypothesis, that social support and social connectedness will be positively associated with trait resilience. This significant positive relationship was also consistent with previous literature linking higher resilience to having greater perceived social support (Khan and Husain, 2010; Malkoç and Yalçin, 2015; Brailovskaia et al., 2017). Previously it had been explained that positive correlations exist between resilience and social support, more specifically as a person is more resilient, they also have higher levels of social support (Satici, 2016). Similarly, support was also found for the link between increased feelings of social connectedness and high trait resilience, although this was not as widely reported in previous literature. Findings did support the likes of Resnick et al. (1997), where it was also reported that a positive association existed between the two, along with DiFulvio (2011) who suggested those who are resilient use social connectedness as a resource. However, the current findings also contradicted some research that suggested the opposite effect, in that a negative correlation existed where as an individual's resilience decreases as did their feelings

of connectedness (Rew et al., 2001). The review of previous research highlighted a gap in the literature, where the relationship between resilience and social connectedness was under-researched. The present study adds to this by providing evidence for a positive relationship between the two.

The third hypothesis in this project was partially supported by the findings. Out of social support and social connectedness, only social connectedness was a significant predictor of SWB. Previous studies such as Jose et al. (2012), also found that social connectedness held a positive association with well-being including connectedness with family members. Similarly, Yoon et al. (2008) highlighted the beneficial effects of social connectedness on well-being, whilst experiencing a stressful life event. Both of these pieces of research are consistent with the current findings. On the other hand, the present study results consistently showed that social support was not a significant predictor of SWB, which instead contradicts a large amount of previous literature. The majority of literature on the topic focuses on the effects of having higher levels of social support and how this is linked to greater well-being (Johnstone et al., 2015; Tian et al., 2015). However, the current research suggests that the focus needs to be shifted elsewhere, as in this case, only social connectedness initiated this positive affect. The literature explaining that social support is used as a mechanism for coping, suggests that the reason that those high in trait resilience have greater SWB, is that they may be making use of their high levels of social support in order to cope with adversity (Chao, 2011). However, the present findings suggest that it may not be the social support that is mediating or increasing SWB but instead, the feelings of connectedness that the individual experiences from those who are providing the support.

Overall, the results of the present study, suggest that social connectedness acts as a mediator for the effects of resilience on SWB. On the regressions for both life satisfaction and negative affect, following the introduction of social connectedness as a variable, resilience as a predictor became insignificant. This suggests the mediating effects of social connectedness. Following a review of previous literature and the findings of the present study, social connectedness appears to act as a social resource, similar to those mentioned in the Broaden and Build Theory. These social resources are more likely when an individual has high levels of resilience, which therefore makes it easier for those people to cope with adversity and obtain a greater SWB. Having increased SWB can provide a range of benefits for an individual, including health benefits, increased income and productivity and improved social behaviours (De Neve et al., 2013). These benefits, among others, highlight a need for the ability to increase one's SWB, where findings such as the results from the present study, are useful in determining what other factors play a role. The results of the present study can be used to promote an individual's well-being by helping them to improve their levels of social connectedness. This could be implemented early, by improving the focus on young people's relationships with their families, schools, and communities, which can help to improve their happiness overall, and further to this their well-being (Jose et al., 2012).

Only on one regression, positive affect, did resilience as a predictor remain significant. However, this can be explained to be down to the previously established link between positive emotions and resilience. Multiple studies have stated that

factors such as positive views of the self and the world, and similarly optimism, are both mediators for the relationship between resilience and SWB (Utsey et al., 2008; Mak et al., 2011). Additionally, the Broaden and Build Theory of Positive Emotions, states that positive emotions interact with and build the resilience of an individual (Fredrickson, 2001). The present study also found a strong positive correlation between resilience and positive affect. Combined, these previous literature findings alongside the current results provide an explanation for the lesser effects of social connectedness on well-being, when investigating positive affect specifically.

Whilst the present study highlighted significant results between resilience, social connectedness, and SWB, some limitations must also be considered. Firstly, the design of this research was cross-sectional, which can present as a problem as it means the variables were only measured at one moment in time. Herrman et al. (2011) explains that the way an individual's resilience interacts with their well-being may change throughout their lifespan and across various situations. By only measuring resilience, well-being and social connectedness at one specific moment in time, the results found may not be applicable to not only the same individuals in different situations, but different individuals as well. Another aspect to consider when interpreting the results of the current project is the uneven distribution of males to females in the sample. The sample of 149 consisted of 118 females and 31 males, and this uneven distribution may be important to consider. Examination of past research reveals a lack of significant differences between the genders for social connectedness (Jose et al., 2012; Lee et al., 2002). However, the way that social connectedness interacts with other factors in one's life can differ between men and women. For example, one study explains how for males, there was a stronger negative correlation between social connectedness and perceived stress than for females (Lee et al., 2002). This suggests that a difference in how social connectedness is used as a resource may exist between males and females, even if social connectedness levels do not differ.

A final factor to consider is the distribution across different occupations of the participants involved in this study. The majority of participants were students (43%) with the next largest group being those who were employed full time (23%). Research has suggested that those with a job have a larger social network, which could result in a higher level of social connectedness compared to those who are without a job, which was only 7% of the present sample (Rüesch et al., 2004). Furthermore, different employment statuses experience and use different levels of social support (Matthews et al., 1999). This highlights a limitation for the present study as the participants were not equally distributed across the range of employment statuses, meaning that the results found may be more generalisable to students or those in full-time employment and less so for those with other employment statuses. Nevertheless, meaningful results were still found from the present research, and the limitations provide an opportunity for the findings to be researched further.

The limitations from the current research highlight some areas for future research. Firstly, as previously discussed, a large gap exists within previous literature on the relationship between social connectedness and resilience. Past research holds a focus on how social support interacts with SWB and resilience. However, the present study found the opposite, in that social support was

insignificant and social connectedness was a significant predictor. Therefore, a shift in the focus of future research would be beneficial, as the current research suggests that social connectedness plays a larger role in why those with high trait resilience have greater SWB, than social support. Similarly, as the current findings are relatively new, further replications and more in depth research would be valuable, to attempt to support what was found in the present study. Another potential for future research is conducting longitudinal research on the variables. Instead of taking a snapshot of how the likes of resilience, social connectedness, social support and SWB interact, studying the way in which they differ through time and across situations would be advantageous. Longitudinal research may provide a more accurate picture of the relationship between the variables, as it would be able to capture a more realistic view, considering that previous studies have suggested that trait resilience and social connectedness are not always constant variables (Herrman et al., 2011; Jose et al., 2012).

In conclusion, the present study investigated and found significant relationships between the predictor variables of resilience, social support, and social connectedness, and the criterion variable of subjective well-being. Consistent with previous research, the current study discovered that trait resilience predicted subjective well-being, and building upon that, that social connectedness mediated this effect. In other words, those who are more trait resilient have a greater subjective well-being and a factor in this is having high levels of social connectedness. Furthermore, the research highlighted that social support may not have as large of an influence on the relationship as previous research has suggested. Instead, the feeling of connectedness an individual gains from their social networks may be more important than any social support they receive. This research also provides practical implications, as the findings can be used to attempt to improve individual's subjective well-being, through looking at their levels of social connectedness. Furthermore, the current study can be built upon by looking further into social connectedness and its relationship with resilience, as well as extending the research to be longitudinal to gain results that are more accurate over time. This will lessen the gap within previous literature and provide valuable insights into the relationships between resilience and well-being, including the way in which social connectedness interacts with both.

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