Gender, emotional intelligence and psychological well-being

The role of gender in the relationship between emotional intelligence and psychological well-being

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ACKNOWLEDGEMENTS

‘Make a joyful noise to the Lord, all the earth! Serve the Lord with gladness! Come into his presence with singing! Know that the Lord, he is God! It is he who made us, and we are his; we are his people, and the sheep of his pasture. Enter his gates with thanksgiving, and his courts with praise! Give thanks to him; bless his name! For the Lord is good; his steadfast love endures forever, and his faithfulness to all generations.’ Psalm 100:1-5

I would like to dedicate this paper to the memory of my beloved friend, Devon February, till the day we meet again in my heart is where I’ll keep you friend.

To my loving and supportive parents and grandparents, It is through your teachings and wisdom that that I have come this far.

My siblings Nicole, Morgan and all my friends stretching from Pretoria, Welkom all the way to Riversdale and Heidelberg, you bring colour to my life. Thank you for all the laughs, the calls and support.

All the other family members and community of Riversdale, it takes a village to raise a child. Thank you for all the prayers and encouraging words

To my supervisors, Prof. Michael Temane and Prof. Marié Wissing thank you for your support, wisdom, knowledge and guidance

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To my Potchefstroom family, I am so blessed to have found you, I am forever grateful for your love, support and wisdom. I have learnt so much from you

And most importantly, all Glory and honour to God for his abundant grace love and strength and who has placed all these wonderful people in my life, your name be exalted.
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SUMMARY

THE ROLE OF GENDER IN THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND PSYCHOLOGICAL WELL-BEING.

Keywords: Emotional intelligence (EI), Psychological Well-being, Gender, Positive affect, Negative affect, Satisfaction with life

The relationship between emotional intelligence (EI) and psychological well-being has been empirically and theoretically elaborated. This suggests that highly emotional intelligent individuals are likely to experience higher psychological well-being if compared to individuals with lower EI (Gallagher & Vella-Brodrick, 2008; Mikolajczak, Nelis, Hansenne, & Quoidbach, 2008; Mavroveli, Petrides, Rieffe, & Baker, 2007; Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007; Zeidner, Matthews, & Roberts, 2009). On the other hand, the role of gender has been found to be influential as well as contradictory in both EI and psychological well-being. Gender has been shown to differentially influence both emotional intelligence and psychological well-being (Castro-Schilo & Kee, 2010; McIntryre, 2010; Schutte, Malouf, Simunek, McKenly & Holland, 2002; Thomsen, Mehlesen, Viidik, Sommerlund & Zachariae, 2005). Therefore, the aim of this study was to explore the role of gender as moderator in the relationship between emotional intelligence and aspects of psychological well-being (positive affect, negative affect and satisfaction with life).

EI was measured with the Emotional Intelligence Scale (Schutte et al., 1998) while psychological well-being was measured with the Satisfation With Life Scale (Diener, Emmons, Larsen & Griffen, 1985) and the Affectometer 2 (Kamman & Flett, 1983). A cross-sectional survey design based on the study by Williams, Wissing, Rothmann and Temane (2009) was implemented after informed consent had been obtained. A sample of 459 participants consisting of both males (n= 59.5%) and females (n=32.9%) with an average age between 25 to 44 years. A 2-step hierarchical regression analysis was conducted to determine, in the first place, the influence of EI on psychological well-being, followed by the interaction between gender and EI.

The findings indicate that gender moderated only the relationship between EI and negative affect. The influence of EI on the two dependent variables, namely positive affect and satisfaction with life, was not moderated by gender. The conclusion is thus made that gender’s
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role as a moderator between EI and psychological well-being is evaluated only between EI’s ability to reduce the perception and experience of negative components on one’s life.

Limitations of the study include the use of a cross-sectional design that lacks continuous monitoring of variables across time. The use of self-report measures indicating only subjective self-report by the participants themselves without other triangulating or collateral information is another limitation. As well as the lack of control for other moderator variables such as age, urban-rural context, and educational attainment that may play a role, but have not been taken into account.

Future research can investigate other possible predicting variables (e.g. interpersonal relationships, social skills, coping and social support) on gender as moderator. These predicting variables can possibly explain additional variance in psychological well-being. The outcomes of the moderating role of gender in the relationship between EI and psychological well-being can be investigated by means of alternative measures that would explore the different levels of functioning along the mental health continuum for males and females alike.
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OPSOMMING

DIE ROL VAN GESLAG IN DIE VEHOUDING TUSSEN EMOSIONELE INTELIGENSIE EN PSIGOLOGISIESE WELSTAND.

Sleutelwoorde: Emosionele intelligensie (EI) psigologiese welstand, Geslag, positiewe affek, negatiewe affek, Lewenstevredenheid.

Die verhouding tussen EI en psigologiese welstand is empiries en teoreties bepaal. Dit dui daarop dat hoogs emosionele intelligente individue geneig is om 'n hoër psigologiese welstand te hê as individue met 'n laer EI (Gallagher & Vella-Brodrick, 2008; Mikolajczak, Nelis, Hans Enne, & Quoidbach, 2008; Mavroveli et al., 2007; Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007; Zeidner, Matthews, & Roberts, 2009). Dit is bewys dat geslag beide 'n invloedryke en teenstrydige rol in EI en psigologiese welstand speel. Dit is reeds bewys dat geslag beide EI en psigologiese welstand differensieël beïnvloed (Castro-Schilo & Kee, 2010; McIntryre, 2010; Thomsen, Meholesan, Viidik, Sommerlund & Zachariae, 2005; Schutte, Malouf, Simunek, McKenly & Holland, 2002). Die doel van hierdie studie was om die rol van geslag te ondersoek as moderator in die verhouding tussen EI en aspekte van psigologiese welstandte ondersoek (positiewe affek op negatiewe affek en lewenstevredenheid).

EI is met die Emosionele Intelligensie Skaal (Schutte et al., 1998) gemeet, terwyl psigologiese welstand met die Lewenstevredenheid skaal gemeet was (Diener et al., 1985) en die Affektometer 2 (Kamman & Flett, 1983) gemeet is. 'n Dwarsdeursnit ontwerp, gebaseer op die studie deur Williams, Wissing, Rothmann en Temane (2009), is geïmplementeer nadat ingeligte toestemming verkry is. 'n Steekproef van 459 deelnemers bestaande uit beide mans (59,5%) en vrouens (32,9%) met 'n gemiddelde ouderdom tussen 25 en 44 is gebruik. 'n Twee stap hiërargiese regressie-analise waar die invloed van EI op psigologiese welstand gedoen is, is eerstens bepaal, gevolg deur die interaksie tussen geslag en EI.

Die bevindinge dui daarop dat geslag slegs die verhouding tussen EI en negatiewe affek modereer. Die invloed van die EI op die twee afhanklike veranderlikes naamlik positiewe affek en lewenstevredenheid was nie deur geslag gemoedere nie. Die gevolgtrekking is dus gemaak dat geslag se rol as 'n moderator tussen EI en psigologiese welstand slegs tussen EI se vermoë om die persepsie en ervaring van negatiewe komponente in 'n individu se lewe te verminder.
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gjeevaluéer is.

Die tekortkominge van die studie is die gebruik van 'n dwarsdeursnit ontwerp waarvolgens
die deurlopende monitering van veranderlikes oor tyd ontbreek. Die gebruik van self-
rappor tering metings dui slegs subjektiewe self verslag deur die deelnemers self aan sonder
ander triangulerende of kollaterale inligting. Die gebrek aan ander moderator veranderlikes soos
ouderdom, stedelike-landelike konteks, en die geleerdheidsvlakke wat 'n rol speel is nie in ag
geneem nie.

Toekomstige navorsing kan ander moontlike voorspelling van veranderlikes (bv.
interpersoonlike verhoudinge, sosiale vaardighede, coping en sosiale ondersteuning) op geslag as
moderator, ondersoek. Hierdie voorspellende veranderlikes kan moontlik addisionele variasie in
psigologiese welstand verduidelik. Die uitkomste van die modererende rol van geslag in die
verhouding tussen EI en psigologiese welstand kan ondersoek word deur middel van alternatiewe
maatreëls deur navorsing rakende die verskillende vlakke van funksionering op die psigologiese
gesondheid kontinuüm vir beide mans en vrouens.
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PREFACE

Article format

The article format, as described in the General Regulation A 13.7 of the North-West University, was chosen for purposes of this mini-dissertation that is part of the requirements for a professional masters degree.

Referencing style and editorial approach for this thesis is in line as prescribed by the Publication Manual (6th edition) of the American Psychological Association.

Selected journal

The target journal for submission of the current manuscript the South African Journal of Psychology.

Letter of consent

The next page holds the consent from the co-authors where permission is provided that the manuscript, “The role of gender in the relationship between emotional intelligence and psychological well-being”, may be submitted for purposes of a mini-dissertation by the first author, Taryn S. Steyn.

Page numbering

For the purposes of this mini-dissertation page numbering will be sequential and numbered from the title page to the last page in the document. At the stage of submission to the South African Journal of Psychology, the page numbering will follow their conventions.
Letter of consent

We, the co-authors, hereby give consent that Taryn S. Steyn may submit the manuscript. The role of gender in the relationship between emotional intelligence and psychological well-being, for purposes of a mini-dissertation as part of a masters degree.

_______________________  _____________________
Prof. Q. M. Temane        Prof. M. P. Wissing
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Instructions to authors

South African Journal of Psychology

Instructions to authors

Submitting a manuscript

SAJP is a peer-reviewed journal publishing empirical, theoretical and review articles on all aspects of psychology. Articles may focus on South African, African or international issues. Manuscripts to be considered for publication should be e-mailed to sajp@up.ac.za. Include a covering letter with your postal address, email address, and phone number. The covering letter should indicate that the manuscript has not been published elsewhere and is not under consideration for publication in another journal. An acknowledgement of receipt will be e-mailed to the author (within seven days, if possible) and the manuscript will be sent for review by three independent reviewers. Incorrectly structured or formatted manuscripts, or manuscripts not edited for language, will not be accepted into the review process.

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Manuscript structure

- The manuscript should be no longer than 20 pages (5,000 words).
- **First page:** The full title of the manuscript, the name(s) of the author(s) together with their affiliations, and the name, address, and e-mail address of the author to whom correspondence should be sent.
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- Authors are requested to pay attention to the proportions of illustrations, tables, and figures, so that they can be accommodated in a single (136mm) column after reduction, without wasting space.

Manuscript format

- The manuscript should be an MS Word document in 12-point Times Roman font with 1.5 line spacing. There should be no font changes, margin changes, hanging indents, or other unnecessarily complex formatting codes.
- The SAJP referencing style should be adhered to. The referencing style of the SAJP is similar to those used by the British Psychological Society and the American Psychological Association. The American Psychological Association (APA, ver. 5) style guidelines and referencing format should be adhered to.
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MANUSCRIPT

THE ROLE OF GENDER IN THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND PSYCHOLOGICAL WELL-BEING.
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The role of gender in the relationship between emotional intelligence and psychological well-being.

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Abstract
The aim of this study was to explore the role of gender as moderator in the relationship between emotional intelligence and aspects of psychological well-being (positive affect, negative affect and satisfaction with life). The Emotional Intelligence Scale (Schutte et al., 1998) was used to measure EI while psychological well-being was measured by the Satisfaction with Life scale (Diener et al., 1985) and the Affectometer 2 (Kamman & Flett, 1983). A secondary analysis was conducted on data from a cross-sectional survey design based on the study by Williams, Wissing, Rothmann and Temane (2009). The study consisted of 459 participants comprising of both males (59.5%) and females (32.9%) with an average of between ages 25 to 44 years. The role played by gender in the relationship between EI and psychological well-being was investigated by means of hierarchical regression analyses. The interaction between gender and emotional intelligence yielded a significant change in negative affect, but not with regard to positive affect and satisfaction with life. The conclusion can thus be made that gender’s role as a moderator between EI and psychological well-being features strongly in EI’s ability to reduce the perception and experience of negative components on one’s life.

Key words: Emotional intelligence, Psychological well-being, Gender, Positive affect, Negative affect, Satisfaction with life.
Gender has been an important basic factor pertaining to differences in psychological aspects such as abilities, personality, lifestyle behaviours and the reaction towards stressful events (Denton, Prus, & Walters, 2004) as well as one of the variables exercising an influence in terms of emotional intelligence (e.g., Brown & Reilly 2008; Mavroveli, Petrides, Rieffe & Bakker, 2007). However, contradictory findings regarding gender differences in psychological well-being have been reported (Gray, 1992). There has, however, been no conclusive evidence that has been presented to support the basis to gender differences in psychological well-being (e.g., Mandell & Pherwani, 2003; Mahon, Yarcheski & Yarcheski, 2005; Petrides & Furnham, 2000). The positive relationship between emotional intelligence (EI) and psychological well-being is clearly supported by empirical evidence in relevant literature (Gallagher & Vella-Brodrick, 2008; Mavroveli et., al 2007; Mikolajczak, Nelis, Hansenne, & Quoidbach, 2008; Schutte, Malouff, Thorsteinsson, Bhullar & Rooke, 2007; Zeidner, Matthews & Roberts, 2009), especially in the case of the high levels of emotional intelligence (Salovey, Bedell, Detweiler,& Mayer, 1999). Implied in gender differences are psychological characteristics that include self-esteem, sense of coherence and mastery, particularly in relation to health (Denton et al., 2004) that could be regarded as moderator variables.

Gender has been shown to differentially influence both emotional intelligence and psychological well-being (McIntryre, 2010; Castro-Schilo & Kee, 2010; Thomsen, Mehlesen, Viidik, Sommerlund & Zachariae, 2005) and thus suggests that it may be a possible moderator variable. This study focuses on gender as a moderating variable in the relationship between emotional intelligence and psychological well-being.

Gender differences: Explanations for gender differences are quite varied, however, it is important to take into account that gender does not operate in isolation in its influence. Gender tends to give a more improved understanding of the relationship of variables (Affi, 2007). Gender differences in exposure to social resources play a significant role in mental and physical health. Sources of these differences include socio-economic experiences that are organised differently for men and women in terms of labour force participation, financial independence and domestic responsibilities (Denton & Walters, 1999). Men and women are expected to think and act differently. These various experiences can be explanatory to why women’s strain due to
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pressures such as discrimination, malnutrition, domestic violence and dependency could be a consequence of their differential sensitivity to events (McDonough & Walters, 2001; WHO, 2000). It has been shown that socio-economic as well as family-related factors moderate the relationship between gender and depression as an index of psychological well-being (Van de Velde, Bracke & Levecque, 2010). Different gender roles are hypothesised to be the reason why perceptions of men and women about their work, family and life in general differ (WHO, 1998) although these are not specifically tested in this study.

From a biomedical perspective gender differences can be explained on the basis of genetics, hormones, anatomy and physiological differences (Kawachi, Kennedy, Gupta & Prothrow-Stith, 1999). In a study where functional magnetic resonance imaging (MRI) was used it was found that men and women use different parts of the brain in reappraising negative emotions (McRae, Ochsner, Mauss, Gabrieli & Gross, 2008). Neural differences could be seen in the amygdala, prefrontal regions and ventral striatal regions (McRae et al., 2008). This led to the conclusion that men have a more automatic emotion regulation than women. However, it should be noted that biology can rarely ever be the sole determinant of a person’s health and well-being as other factors would also certainly influence development. Social determinants such as politics, economics, culture together with gender can exacerbate biological susceptibility (Affi, 2007). Studies have proved that gender differences in health vary by social position. A disadvantaged socio-economic position can be disabling to the extent that it can lead to depression (Chonodoy & Siebert, 2008). In some cultures women occupy a submissive role and have no say in sexual matters and may consequently become biologically susceptible for HIV and other related sexual diseases (Shisana, 2004).

Empirical evidence in various contexts also shows that single and divorced men have higher overall admissions to mental health clinics than single or divorced women, while married women have a higher admission rate than married men (Dennerstein, Astbury & Morse, 1993). Research has also shown that men have more externalising pathology while women have more internalising pathology (Dawson, Goldstein, Moss, Li & Grant, 2010). Women are regarded as being twice as vulnerable as men to depression and anxiety while men are more prone to alcoholism and antisocial behaviour (Dawson et al., 2010). In cases where alcohol abuse is present in women it is usually secondary to the internalising depression (Dawson et al., 2010). Precipitation of mental disorders is thus different in men and women (Postolache et al., 2010).
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with various interactions between gender and seasonality in parasuicides. Men have higher rates of suicide (Postolache et al., 2010), whereas women have higher rates of deliberate self-harm and parasuicides (Hawton, Bergen, Casey & Simkin, 2008). In terms of these differences it is expected that gender differences will be yielded by the study measures for both EI and psychological well-being on the one hand and that gender will moderate the relationship between these two variables.

**EI and well-being:** The relationship between EI and psychological well-being has been well established through empirical studies (Mavroveli, et al., 2007; Mikolajczak et al., 2008) as indicated earlier. In meta-analytic studies EI showed to be a strong predictor of various life outcomes including mental and physical health. People who have a better perception, understanding and managing of emotions (High EI) have a lower risk for the developing maladaptive emotional states like mood and anxiety disorders because of their ability to, repair after a negative mood induction (Schutte et al., 2007). Higher EI has therefore been associated with healthy psychological functioning that includes higher optimism, greater feelings of emotional well-being and low levels of depression (Mikolajczak, Petrides, Coumans & Luminet, 2009; Salovey Mayer, Goldman, Turey & Palfaiet, 1995; Schutte et al., 2002). In the relationship between EI and health, which includes mental-, physical- and psychosomatic health, it was found that people with a high EI will be less likely to experience mental health problems (Petrides, Perez-Gonzalez & Furnham, 2007; Schutte et al., 2007). Consequently, it has been theorised that individuals who are able to regulate and understand their emotions have better experience of emotional health (Kafetsios & Zampetakis, 2007; Lyubomirsky, King & Diener, 2005; Mikolajczak et al., 2009).

According to a study in which the relationship between emotional intelligence and aspects of interpersonal relations explored, it was found that EI showed a high correlation with empathy perspective taking and self-monitoring (Schutte et al., 2001). People with a higher EI thus tend to interact better and are more effective with others. They also have a better understanding of the environmental context and modify self-presentation in response accordingly (Schutte et al., 2001). The study further showed that participants with a high EI showed high social skills that include social interaction and the size of the individual’s social network (Schutte et al., 2001). Higher EI also positively correlated with cooperation. Relationships with others correlated with a high EI. These findings and conclusions confirm that understanding others’ emotions and
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regulating others’ and one’s own emotions contribute to building good relationships (Schutte et al., 2001). EI thus plays a cardinal role in social interactions (Brackett, Rivers, Shiffman, Lerner, & Salovey 2006; Song, Huang, Peng, Law, Wong & Chen, 2010).

The cognitive component of psychological well-being has also theoretically been linked to EI (Gannon, & Ranzijn, 2005; Salovey & Mayer, 1990). In studies to examine EI’s relationship with life satisfaction it was found that positive correlations do exist between the two variables (Austin, Saklofske & Egan, 2005; Gallagher & Vella-Brodrick, 2008; Palmer, Donaldson & Stough, 2002). In some literature sources it was argued that EI overlaps with personality and that it is in fact measuring personality rather than EI. According to Gannon and Ranzijn (2005) and Ciarrochi, Chan and Caputi (2000) EI predicts a unique variance in life satisfaction, and life satisfaction has a positive correlation with high scores of emotional management. Although other dimensions such as perception, understanding and utilisation were not as significant they still relate to the ability to manage emotions, and reveal that EI has a general contribution toward life satisfaction (Gannon & Ranjin, 2005). Other dimensions that also correlated highly with EI are self-acceptance and self-esteem (Carmeli, Yitzhak-Halevy & Weisberg, 2007). These psychosocial factors such as social relationships, greater optimism and satisfaction have been proved contributors of better medical health that leads us to believe that problems related to mood or anxiety often co-morbid with psychosomatic symptoms (Matthews, Zeidner, & Roberts, 2004).

**Conceptual aspects of Emotional intelligence.** Although different models (trait or ability) for the definition of EI exist (Mayer, Salovey & Caruso, 2008) the contribution that EI makes to an individual’s life is universal in matters concerning life satisfaction, self-esteem and self-worth (Martinez-Pons, 1997; Schutte et al., 1998). Salovey and Mayer (1990) define EI in terms of four branches namely the perception, integration, understanding and management of one’s own and others’ emotions (Mayer, Salovey & Caruso, 2000). The definition of EI used in this study is based on a similar conceptualization developed by Schutte et al. (1998). Schutte et al. (1998) view perception, appraisal and expression of emotion as the most basic processes and reflective regulation as a more complex process.

Studies have shown that individuals who can regulate their emotional states, including accurately perceiving, understanding and expressing emotions, are healthier (Salovey et al., 1999). Evidence thus exists to show that emotional competencies improve social skills,
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especially when it comes to understanding and managing others’ emotions during interactions (Lopes, Salovey & Strauss, 2003; Lopes, Bracket, Nezlek, Schutz, Selin & Salovey, 2004; Schutte et al., 2001). Social skills, in turn also contribute to an individual’s well-being. In this study it is expected that individuals high in EI will also exhibit high scores with regard to well-being measures.

*Conceptual aspects of Psychological well-being*: Well-being refers to the optimal psychological experience and functioning of an individual. According to Ryff (1995) well-being is multi-dimensional and includes dimensions such as self-acceptance, personal growth, purpose in life, positive relations with others, environmental mastering (the ability to effectively manage one’s life and surrounding world) and a sense of autonomy. It has also been further defined in terms of two components, i.e. an affective component that consists of positive and negative affect and a cognitive component, namely satisfaction with life that refers to the global judgment of a person’s entire life where specific domains (including health, wealth and relationships) determine the overall judgment (Deci & Ryan, 2008; Pavot & Diener, 1993). Not all domains carry the same importance for all individuals. In this study, psychological well-being is defined in terms of the conceptualisation used by Williams, Wissing, Rothmann and Temane (2009). Psychological wellbeing is conceptualized in terms of satisfaction with life and positive affect balance. This conceptualization is in line with the definitions used by Deci and Ryan (2008).

Based on the foregoing literature review, this study focuses on the role played by gender in the relationship between EI and psychological well-being. The question asked by the study is whether gender could significantly alter the relationship between EI and psychological well-being.

**METHOD**

**Research Design**

In this study a secondary data analysis was utilized and based on data collected during a study conducted by Williams et al (2009). Data were collected in 2005 from among a group of employees in the North West Provincial Government.

A quantitative survey research design was used to explore the relationship between EI and psychological well-being as well as the influence of gender on the two variables EI and
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psychological well-being at one point in time only. There was no manipulation of variables as no randomisation was used (Rosenthal & Rosnow, 2008).

Participants
The sample comprised of 459 participants employed at the time of the survey by the North West Provincial Government. Participation in the study was completely voluntary. The sample consisted of 59.5 % females compared to 32% males. In terms of age, 56% of the sample were between 25-44 years of age, while 5.9% were in the age group 18-24 and 31% in the age group 45 to 55 and above. The category of employment ranged from management (assistant director through to deputy director) (50.7%) to operational (42.9%) (Williams, et al., 2009).

Measures

Emotional Intelligence scale (Schutte et al., 1998). Emotional Intelligence scale is a 33-item self-report scale developed by Schutte et al. (1998) that evaluates the identification, understanding, harnessing and regulation of emotions. These aspects are measured on a Likert scale which ranges from 1 (strongly disagree) to 5 (strongly agree). Items are summarised to give an indication of emotional intelligence. The higher the score in EI, the higher the emotional intelligence. In previous studies, the scale had an internal consistency of 0.78 to 0.90 (Schutte, et al., 1998). This scale gives a good representation of the perception of emotions, the managing of emotions in the self and/or others and the utilisation of emotions that present with the best fit for the four-factor model (Ciarrochi, Chan & Bajgar., 2001). In this study the scale yielded a Cronbach alpha of 0.92. An exploratory factor analysis revealed that for this sample the scale had only 1 factor.

Satisfaction with life scale (SWLS; Diener et al., 1985) is a subjective self-report measure of life satisfaction. The scale consists of 5 questions where participants respond to a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). This scale has a high internal consistency with a Cronbach alpha of 0.87 with a discriminant and convergent validity (Diener et.al., 1985). In this study a Cronbach alpha of 0.79 was yielded for this scale. Exploratory factor analysis yielded 1 factor.

Affectometer-2 Short-form (AFM; Kammann & Flett, 1983): This scale was developed to measure a general sense of well-being or general happiness. Two factors, namely positive affect and negative affect are each measured by 10 items and the difference between their total scores
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yields the affect balance. This affect balance is an index of psychological well-being (Kammann & Flett, 1983). The more positive affect predominates over negative affect, the higher the overall level of well-being (Kammann & Flett, 1983). For purposes of this study the sub-scales for positive and negative affect will be separately used. For the positive affect dimension a Cronbach alpha of 0.81 was yielded and for negative affect a Cronbach alpha of 0.82 was yielded.

Data analysis

Psychometric properties of all the scales were determined in a previous study (see Williams et al., 2009). Secondly, descriptive statistics such as means, were calculated to assess the central tendency of the scales. Tests of the normality of data were also calculated. Differences in terms of comparing the mean scores male and female participants of emotional intelligence measure and psychological well-being were calculated and results of Student t-tests are reported. In preparation for regression analyses and the test of interaction between gender and emotional intelligence, the median of the emotional intelligence measure was established so as to distinguish between high and low levels of emotional intelligence.

To investigate the role played by gender in the relationship between emotional intelligence and psychological well-being, hierarchical regressions analyses were calculated. The hierarchical regressions will be presented in 2 steps with the first step showing the influence of emotional intelligence on psychological well-being and with the possible interaction between gender and emotional intelligence in the second step. The coefficient of determination ($R^2$) will be reported as an index of the degree of influence by the independent variable (EI) on the dependent variable (psychological well-being). Possible interaction effects between EI and gender will be reported in terms of the significance in F change as F indicates the viability of the model.

RESULTS

Descriptive statistics for all study measures are reported in Table 1 with an indication of both central tendency (mean and standard deviation) and dispersion (skewness and kurtoses). The means indicate the level of manifestation of the measured constructs and their degree of dispersion that are given by the standard deviation. For this study the data set was split for males.
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and females for comparisons and to aid further analysis on the role of gender in the relationship between EI and psychological well-being.

<Table 1 approximately here>

The table above shows that participants scored higher on the EI and satisfaction with life as indicated by negatively skewed indices and slightly lower in terms of positive affect and negative affect. The kurtosis of EI is also more platykurtic indicating a wider distribution of scores.

Measures of consistency and intercorrelations for all study measures (emotional intelligence, positive affect, negative affect and satisfaction with life) are reported for the participants in this study in Table 2.

<Table 2 approximately here>

Table 2 shows that all measures had acceptable Cronbach alpha coefficients in the first instance. These Cronbach alphas compare favourably with the guideline of 0.70 suggested by Kline (1999), Clark and Watson (1995) and Streiner (2003) indicating a good reliability. Secondly, all the correlations in the table above are significant and have effect sizes ranging from medium to large effect (Field, 2005). The correlation between emotional intelligence and positive affect had a large effect size while the correlation between EI and negative affect and satisfaction with life had small and medium effect sizes respectively.

To study gender effects, the difference of the means between males and females on the various study measures were calculated to determine whether a significant difference existed, as indicated in the table 3 below.

<Table 3 approximately here>

Table 3 indicates that no significant differences were yielded by the data for emotional intelligence, positive affect, negative affect and satisfaction with life for male and female participants in this study. Effect sizes were not computed as no significant differences between males and females were yielded by the results on the study measures.

To investigate the role played by gender in the relationship between EI and psychological well-being, regression analyses were calculated. EI and gender were entered as two separate
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independent variables in the first step. In the second step, the product term between gender and
EI was entered to test possible interaction effects. In an attempt to test the possibility of any
interaction effects, the centered predictors and moderator were entered first into the regression
equation followed by the interactions in the second step to predict facets of psychological well-
being (positive affect, negative affect and satisfaction with life). The results of the hierarchical
models are presented individually with positive affect, negative affect and satisfaction with life
(in separate tables), where unstandardised and standardised regression coefficients, coefficient of
determination, change in coefficient of determination and significant F-ratio change are
indicated.

Table 4 presents the results of the possible interaction effect of gender and EI on positive
affect as a dependent variable.

<Table 4 approximately here>

As shown in Table 4 gender does not moderate the relationship between emotional
intelligence and positive affect. Therefore the difference in gender does not yield any significant
change in the influence of emotional intelligence on positive affect.

The possible interaction between gender and EI was tested in the model presented in. Table
5 shows that gender moderates the relationship between EI and negative affect.

<Table 5 approximately here>

The table shows that gender moderates the relationship between EI and negative affect as
apparent from a significant F-ratio change of .03. The unstandardised regression coefficients,
coefficients of determination and change in the coefficient of determination are also reported in
the table above. In the first step it can be seen that EI has a negative regression coefficient with
negative affect as expected from a conceptual perspective.

The possible influence of gender on the relationship between EI and satisfaction with life
was tested in the model presented in Table 6.

<Table 6 approximately here>

The table shows that gender does not moderate the relationship between EI and satisfaction with
life. Therefore the difference in gender did not influence any significant change in the influence
of emotional intelligence on satisfaction with life.
The purpose of the study was to investigate the role of gender in the relationship between emotional intelligence and psychological well-being. The findings of the study show that gender moderates the relationship between emotional intelligence and negative affect and no moderation was evident for positive affect and satisfaction with life. Secondly, the descriptive analyses of the study show that all measures used in this study were reliable to use for various analyses in line with the main aim of the study.

According to findings of the study there was no significant interaction between gender and emotional intelligence in predicting two of the three components of psychological well-being. Negative affect was the one component that was significantly predicted by the interaction between gender and EI. This implies that gender moderates the relationship between EI and negative affect. The interaction of gender and emotional intelligence has an effect in predicting the experience of negative affect in psychological well-being. These differences in negative affect could be due to differences in emotion regulatory strategies (Fujita, Diener, & Sanvik, 1991). According to Canary, Emmers-Sommer & Faulkner, (1997) and Wester, Vogel, Pressly & Heesacker, (2002) women encode and decode nonverbal and verbal expressions better while men control the expression of anger and sadness better.

Cultural, social and role patterns are constructed differently for men and women (Crose, Nicholas, Gobble, & Frank, 1992). Women may feel less control over emotions, negative events and more responsible for emotional tone in relationships (Thomsen et al., 2005). If men and women’s differing stress exposure and distress responses are in fact gender-based in gender-related roles and responsibilities, then similar patterns should predict their individual perception and experience of negative affect. This would then explain the gender differences in mental health for example women seem to be more prone to affective disorder such as depression while men have higher rates for substance abuse disorders and antisocial personality disorder (Linzer et al., 1996).

There was a significant correlation between EI and the various components of psychological well-being used in this study. The correlation between EI and positive affect was also highly, practically and positively significant (Field, 2005) and the other correlations were moderate to small in practical significance. This finding was further supported by regression.
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analysis that indicated a positive influence by EI on psychological well-being. This is in line with previous research findings (Carmeli et al., 2007; Palmer et al., 2002).

EI has been found to account for various factors of psychological well-being such as self-esteem, satisfaction with life and self-acceptance (Carmeli et al., 2007; Palmer et al., 2002). Previous literature has shown that men and women use different strategies to maintain and establish psychological well-being. Women usually rely more on their faith to obtain strength and control, as well as the seeking of meaning and purpose in their lives by means of a higher power (Roothman, Kirsten & Wissing, 2003; Vosloo, Wissing, & Temane, 2009). Men have higher self-esteem in terms of their appearances and general physicality (Roothman et al., 2003). It would furthermore appear feelings of personal worth and adequacy are also contributors to their psychological well-being (Roothman et al., 2003). Men thus have higher levels of ego and cognitive strengths, whereas women are functioning better in social, emotional and spiritual aspects (Crose et al., 1992; Roothman et al., 2003). Although gender differences were not found in psychological well-being as such, differences can be present in the way psychological well-being is being achieved.

In a vastly ever changing society, individuals are expected to have highly developed social and emotional skills as a way of ensuring, not only their own well-being, but also the well-being of others. Individuals who experience high levels of positive affect in social situations are also likely to experience high levels in non-social situations (Oishi, Diener, Suh & Lucas, 1999). This provides further support for the notion that positive affect accounts for the differences in psychological well-being.

There was, however, no gender differences in the EI scores of males and females in this study. This is consistent with related studies in adults (Mavroveli, et al., 2007; Petrides, Furnham & Martin 2004) according to which it was found that the equality at global level is the result of moderate to strong gender differences in opposite directions at subscale level, for example, a male favouring difference on assertiveness counter-balances a female favouring difference on emotion expression.

The findings of this study support the proposed theory that gender influences the relationship between EI and psychological well-being. This confirms the important emphasis researches have placed on EI as a predictor to ensure well-being (Carmeli et al., 2007; Landa, Lopez-Zafra, De Antonana, & Pulido, 2006; Palmer et al., 2000). It was found that individuals
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with a high EI displayed high satisfaction with life, high positive affect and low negative affect based on the intercorrelations. In this study EI particularly indicated to be an important predictor of positive affect. This proves that the ability to successfully manage emotions can help nurture positive affect and better coping with stress and the experience of negative affect (Mayer & Salovey, 1997). However, the product term between gender and EI did not significantly predict positive affect.

Individuals who are able to perceive and understand their emotions, can indirectly contribute to their quality of the emotional experience through identifying and interpreting cues that inform self-regulatory action. People who experience more positive emotions have been found to be more successful and accomplished across multiple life domains (Lyubomirsky et al., 2005). This implies that positive affect engenders success in all spheres of life. The experience of positivity means that it is going well. Because it is then going well people expand their resources and build a broader futuristic repertoire (Fredrikson & Joiner, 2002). It is thus seen in this study that the experience of psychological well-being to a large extent lies in the experience of positive affect. However, the present study found no gender differences in positive affect.

The balance of negative affect together with positive affect contributes to a person’s judgments of life satisfaction (Diener & Larson, 1993). This study also proved that emotional intelligence correlated negatively with negative affect. This relates to studies that concluded that EI moderates the relationship between stress and mental health. Individuals who are able to successfully manage their emotions have a good social support (Ciarrochi et al., 2000). It is such social support that aids as a protecting factor in depression, hopelessness and suicide (Ciarrochi, Deane & Anderson, 2002; Windle, 1992). People with a high management of emotions are able to regulate their mood in a more positive direction which is of psychological benefit especially in times of stress (Schutte et al., 1998).

Limitations: The current study took a cross-sectional design which, unlike longitudinal design, does not allow for continuous monitoring of the variables across time. As a result it was not ascertained whether gender’s role as a moderator between EI and well-being is consistent across time. The use of self-report measures may be criticised as they may indicate only subjective self-report by the participants themselves without other triangulating or collateral information. The current study took into account gender as moderator only, but it is, however,
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acknowledged that there may be other moderator variables such as age, urban-rural context, and education attainment that may play a role.

**Conclusion and recommendations:** In this quantitative investigation of the moderating role of gender in the relationship set EI and psychological well-being, it was found that gender significantly moderated the relationship between EI and negative affect. The influence of EI on the two other dependent variables namely positive affect and SWL was not moderated by gender. The conclusion is thus made that gender’s role as a moderator between EI and psychological well-being is observed only between EI’s ability to reduce the perception and experience of negative components on one’s life. This would result in a more optimal psychological well-being.

Future research on the moderating role of gender can be broaded by expanding the context of sampling as certain areas of work entail more stress, conflict and negativity. Possible cultural differences regarding gender as moderator can also be investigated as well as socio-demographic and contextual factors. In addition, other possible predicting variables such as interpersonal relationships, social skills, coping and social support can be investigated in gender’s moderating role. These predicting variables can possibly explain additional variance in psychological well-being. The outcomes of the moderating role of gender in the relationship between EI and psychological well-being can be investigated by means of alternative measures by exploring the different levels of functioning along, for example, the mental health continuum for males and females.
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References


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Table 1

Descriptive statistics for the total sample (n= 459 )

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
<th>Kurtosis</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Min.</td>
<td>Max.</td>
</tr>
<tr>
<td>EI</td>
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<td>15.19</td>
<td>29.0</td>
<td>144.0</td>
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<tr>
<td>AFM_PA</td>
<td>36.23</td>
<td>7.0</td>
<td>10.0</td>
<td>50.0</td>
<td>.94</td>
</tr>
<tr>
<td>AFM_NA</td>
<td>23.60</td>
<td>7.92</td>
<td>10.0</td>
<td>50.0</td>
<td>-.12</td>
</tr>
<tr>
<td>SWL</td>
<td>22.47</td>
<td>5.95</td>
<td>5.0</td>
<td>35.0</td>
<td>-.08</td>
</tr>
</tbody>
</table>

Note: EI=Emotional intelligence; AFM_PA=Positive affect; AFM_NA=Negative affect; SWLS=satisfaction with life
Table 2

Reliability indices and correlations of the study measures for the total sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach alpha</th>
<th>EI</th>
<th>PA</th>
<th>NA</th>
<th>SWL</th>
</tr>
</thead>
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<tr>
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<td>.</td>
</tr>
<tr>
<td>PA</td>
<td>.81</td>
<td>.60**</td>
<td>1.00</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>NA</td>
<td>.82</td>
<td>-.21**</td>
<td>-.37**</td>
<td>1.00</td>
<td>.</td>
</tr>
<tr>
<td>SWL</td>
<td>.79</td>
<td>.39**</td>
<td>.49**</td>
<td>-.28**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note: EI= Emotional Intelligence, PA= Positive affect, NA= Negative Affect, SWL= Satisfaction with life.

**= Significant at the 0.01 level (2-tailed)
Gender, emotional intelligence and psychological well-being

Table 3

Mean differences among study measures for males and females

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male</th>
<th>Female</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>EI</td>
<td>107.70</td>
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<td>108.57</td>
<td>16.84</td>
<td>-.93</td>
</tr>
<tr>
<td>AFM_PA</td>
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<td>6.20</td>
<td>36.20</td>
<td>7.44</td>
<td>.59</td>
</tr>
<tr>
<td>AFM_NA</td>
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<td>7.71</td>
<td>23.43</td>
<td>7.94</td>
<td>.09</td>
</tr>
<tr>
<td>SWL</td>
<td>23.31</td>
<td>5.35</td>
<td>22.19</td>
<td>6.28</td>
<td>1.84</td>
</tr>
</tbody>
</table>

Note: EI= Emotional Intelligence, PA= Positive affect, NA= Negative Affect, SWL= Satisfaction with life.
Gender, emotional intelligence and psychological well-being

Table 4
Interaction of emotional intelligence and positive affect

<table>
<thead>
<tr>
<th>Step and Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>R²</th>
<th>ΔR²</th>
<th>Sig. ΔF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
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<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
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<tr>
<td>Gender</td>
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<tr>
<td>EI</td>
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<tr>
<td>Step 2</td>
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<td>.04</td>
<td>.17</td>
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<td>.</td>
</tr>
</tbody>
</table>

Note: EI=Emotional intelligence
Gender, emotional intelligence and psychological well-being

Table 5
Interaction of emotional intelligence and negative affect

<table>
<thead>
<tr>
<th>Step and Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>R²</th>
<th>ΔR²</th>
<th>Sig. ΔF</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>.81</td>
<td>.01</td>
<td></td>
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</tr>
<tr>
<td>EI</td>
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<td>-.24</td>
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<tr>
<td>Step 2</td>
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<td>.01</td>
<td>.03</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender X EI</td>
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<td>.05</td>
<td>.81</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: EI=Emotional intelligence
Table 6

Interaction of emotional intelligence and satisfaction with life

<table>
<thead>
<tr>
<th>Step and Variable</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>R²</th>
<th>ΔR²</th>
<th>Sig. ΔF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
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<tr>
<td>Step 2</td>
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<td>.03</td>
<td>.16</td>
<td></td>
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</tbody>
</table>

Note: EI = Emotional Intelligence