Development and evaluation of a psychological well-being programme for university students in Tanzania

J. Rugira

M.A. (Counselling Psychology)

Thesis submitted for the degree Philosophiae Doctor

in Psychology at the North-West University

Promotor: Dr. A. W. Nienaber

Co-Promotor: Professor M. P. Wissing

April 2013

Potchefstroom Campus

Acknowledgments

Having reached the end of this long journey, I am deeply grateful for the incredible support and encouragement I have received from so many. My late father's favourite statement was "*Imana y'abantu ni abandi*", literary meaning that through others (people) everything can be accomplished; therefore we are saved by the help of others. Throughout this thesis writing and study process, I have been blessed with invaluable help from many people, largely in the form of support and encouragement.

My deepest thanks are extended to my promoter Dr. Alida W. Nienaber and co-promoter Prof. Dr. M.P. Wissing for their invaluable guidance and support throughout this process and whose insights helped me narrow down some grand ideas into a solid, obtainable goal, while keeping the finish line firmly in mind. My sincerest appreciation goes to Dr. Suria Ellis of the NWU Statistical Consultation Services, who guided me through the difficult hurdles of statistics. Her statistical expertise and guidance with writing were more than I could have asked for and a tremendous help.

My strong appreciation to my late parents, Jacques and Rachel who taught me that anything is possible if I put my mind to it. My will might have caused them plenty of *angst* during my childhood, but their patience has paid off and my strong will has become an asset. I could not ask for better, more supportive parents. You remain alive.

Many thanks to my wife Chantal Marie and our children Frank and Bernice for putting up with a terribly quiet house for so long and thereby allowed me to have a conducive environment that facilitates learning. I appreciate how you have always believed in me and in my abilities. Thank you for your humor, care, kindness and the consistent spoken and unspoken support you offer.

I thank the participants and institutions that freely agreed to be involved in the present study.

I hereby acknowledge the financial support provided by Mount Meru University and the North-West University. Conclusions reached in this study should not be ascribed to them.

Contents

SUMMARY

Development and evaluation of a psychological well-being programme for university students in Tanzania

Key words: Psychological well-being, flourishing, university students, resilience, Tanzania, psychological strengths, positive psychology, programme evaluation and development.

The increasing interest in positive psychology/psychofortology, calls for valid and reliable studies that aim at promoting the essential aspects of well-being in a specific population group. The psychological well-being concept is clearly central to a very broad range of areas of inquiry in philosophy, as well as areas such as the law, medicine, and education. The concept of well-being has often been studied in various population groups and the prevalence of psychological well-being has already been established for several populations. However, no studies could be located that focus specifically on the prevalence of well-being levels or enhancement of well-being from a positive psychology perspective in the Tanzanian population. Studies on student samples in this regard are generally also scarce.

This study was carried out in three phases; the *first phase* focused on establishing the prevalence levels of psychological well-being in Tanzanian university students. This exercise involved data collection in a one-shot cross-sectional study design by using a self-administered scale (Mental Health Continuum-Short Form), (Keyes, 2005; 2006). The *second phase* focused on the development of a well-being promoting programme, while the *third phase* tested its efficacy when presented to a group of Tanzanian university students.

The aim of the first phase (article 1) was to explore the prevalence and levels of psychological well-being in a group of Tanzanian university students. A quantitative cross-sectional survey design was implemented for data-gathering. A convenience sample of 279 undergraduate students (19 to 40 years) from three universities completed the Mental Health Continuum – Short Form (MHC-SF), (Keyes, 2005; 2006) to measure their levels of well-being. Findings indicated the prevalence levels of positive mental health in this group as follow: 3.5% languishing, 23.6% moderately mentally healthy, and 72.7% flourishing, as measured with the MHC-SF. The percentage of flourishing participants was found to be much higher than found in previous studies in other countries in the world. Some differences were noted between the three participating universities and possible reasons for the same are explained. The development of a promotive and preventative programme was recommended to ensure the maintenance of well-being in students who are flourishing, and to enhance mental health in those who are moderately mentally healthy or languishing.

The second phase (article 2) focused on proposing and developing a well-being promoting programme for those that are otherwise mentally healthy. The literature justifying the importance of both prevention and promotion of well-being to this population group were reviewed. The well-being promoting programme that has been developed consists of eight sessions of 50 minutes each, taking place once per week. Key themes covered by the proposed programme include: Self-knowledge, perspective and meaning, hope, relationship, physical exercise and coping. The newly developed programme builds on Ryff and Keyes' (1995) eudaimonic perspective and Seligman's (2002) hedonic concept in positive psychology. This study recommended that the well-being promoting programme be tested for validation which would translate theory into practice.

The aim of the third phase (article 3) was to test the efficacy of a proposed well-being promoting programme for university students (as described in article 2). The evaluation of the programme focused on a group of university students between 19 – 40 years of age. An experimental (n= 44) and control (n= 38) group participated in the evaluation. In order to determine the effect of the programme, the following measures were used: Health Continuum-Short Form (MHC-SF) (Keyes, 2005; 2006), Coping Self-Efficacy (CSE) (Chesney et al., 2006), the Trait Hope Scale (THC) (Snyder et al., 1991), and The Patient Health Questionnaire: Depression Symptoms (PHQ-9) (Kroenke, Spitzer & William, 2001).

With the use of Statistica Marques de Sa (2003) findings indicated that the well-being promoting programme had a significantly positive effect on participants. Married participants were more effective in suppression of unpleasant emotions in the experimental group than in the control group. Gender-based differences were noted on emotional well-being scores, where an increase in the experimental group was noted for females in areas such as problem-focused coping, suppression of unpleasant emotions, total self-efficacy, and social well-being.

This study showed that a great percentage of university students in Tanzania could be viewed as flourishing. Results of this study affirm the fact that higher levels of psychological well-being can be achieved through a specific programme aimed at promoting the same. The well-being promoting programme calls for development of other programmes to suite various populations groups from a preventive perspective.

This study contributes in the field of positive psychology by providing information on the prevalence levels of psychological well-being in a specific population group of university students, which may help researchers interested in adolescents and young adults to develop wellness enhancement programmes. The study further suggests the content for a well-being

promoting programme of positive human mental health. Finally, recommendations for future research and further application of the well-being promoting programme are presented.

OPSOMMING

Ontwikkeling en evaluering van ’n psigologiese welstandsprogram vir Tanzaniese universiteitstudente

Sleutelwoorde: Psigologiese welstand, florerend, universiteitstudente, veerkragtig, Tanzanië, psigologiese sterktes, positiewe sielkunde, programevaluering en -ontwikkeling.

Die toename in belangstelling in positiewe sielkunde/psigofortologie beteken dat geldige en betroubare studies wat ten doel het om belangrike eienskappe van welstand in ’n spesifiek bevolkingsgroep te bevorder, benodig word. Die konsep van psigologiese welstand staan klaarblyklik sentraal in ’n groot verskeidenheid areas van ondersoek in die filosofie, asook areas soos die reg, geneeskunde en opvoedkunde. Welstand as konsep is dikwels in verskillende bevolkingsgroepe bestudeer en die voorkoms van psigologiese welstand is reeds vir verskeie bevolkings vasgestel. Geen studie vanuit ’n positiewe sielkunde-perspektief kon egter gevind word wat spesifiek fokus op die voorkoms van welstandsvlakke, of op die bevordering van welstand, in ’n Tanzaniese bevolkingsgroep nie. Studies van studente-steekproewe ten opsigte hiervan is in die algemeen ook skaars.

Hierdie studie is in drie fases uitgevoer; die *eerste fase* het op die vasstelling van voorkomsvlakke van psigologiese welstand onder Tanzaniese universiteitstudente gefokus. Hierdie oefening het data-insameling in ’n eenmalige deursnit-studie-ontwerp behels, deur gebruik te maak van ’n self-waarnemingskaal (Mental Health Continuum-Short Form, Keyes, 2005, 2006). Die tweede fase het op die ontwikkeling van welstand-bevorderingsprogramme gefokus, terwyl die derde fase die doeltreffendheid daarvan getoets het wanneer dit vir ’n groep Tanzaniese universiteitstudente aangebied is.

Die doel van die eerste fase (artikel 1) was om die voorkomsvlakke van psigologiese welstand in ’n groep Tanzaniese universiteitstudente te verken. ’n Kwantitatiewe deursnit-ondersoekontwerp is vir dataversameling geïmplementeer. ’n Gerieflikheidsteekproef van 279 voorgraadse student (19 tot 40 jaar) vanuit drie universiteite het die Mental Health Continuum – Short Form (MHC-SF), Keyes, 2005, 2006) voltooi om hul welstandsvlakke te meet. Bevindinge het aangetoon dat die voorkomsvlakke van positiewe geestesgesondheid in hierdie groep soos volg is: 3.5% kwynend, 23.6% redelik geestelik gesond, en 72.7% floreer volgens die MHC-S-maatstaf. Die persentasie florerende deelnemers was veel groter as wat daar in vorige studies in ander lande bevind is. Verskille is wel opgemerk tussen die drie deelnemende universiteite en moontlike redes word uiteengesit. Die ontwikkeling van ’n bevorderings- en voorkomende program is aanbeveel om die instandhouding van florerende studente se welstand te verseker en om die geestesgesondheid van diegene wat redelik geestelik gesond of kwynend is, te verbeter.

Die tweede fase (artikel 2) het op die voorstelling en ontwikkeling van ’n welstandbevorderingsprogram vir diegene wat andersins geestelik gesond is, gefokus. Die literatuur wat die belangrikheid van beide voorkoming en bevordering ten opsigte van welstand in die bevolkingsgroepe regverdig, is bestudeer. Die welstandbevorderingsprogramme wat ontwikkel is, bestaan uit agt sessies van 50 minute elk wat een keer elke week loop. Sleuteltemas wat deur die voorgestelde program gedek word, sluit die volgende in: Selfkennis, perspektief en betekenis, verhouding, fisiese oefening en opgewassenheid. Die nuutontwikkelde program bou voort op Ryff en Keyes (1995) se eudemonistiese perspektief en Seligman (2002) se hedonistiese konsep van positiewe sielkunde. Hierdie studie beveel aan dat die welstandbevorderingsprogram se geldigheid getoets word om uiteindelik teorie te kan oorneem na die praktyk.

Die doel van die derde fase (artikel 3) was om die doeltreffendheid van die voorgestelde welstandsprogram vir universiteitstudente (soos in artikel 2 beskryf is) te toets. Die programevaluering het op ’n groep universiteitstudente gefokus tussen die ouderdom van 19 en 40 jaar. ’n Proefgroep (n = 44) en ’n kontrolegroep (n = 38) het deelgeneem. Om die effek van die program te kan vasstel, is die volgende metings gebruik: Health Continuum-Short Form (MHC-SF) (Keyes, 2005; 2006), Coping Self-Efficacy (CSE) (Chesney et al., 2006), die Trait Hope Scale (THC) (Snyder et al., 1991), en The Patient Health Questionnaire: Depression Symptoms (PHQ-9) (Kroenke, Spitzer & William, 2001).

Die bevindinge wat deur Statistica verkry is (Marques de Sa, 2003), het aangetoon dat die welstandbevorderingsprogram ’n merkbare positiewe effek op die deelnemers gehad het. Getroude deelnemers in die proefgroep het beter daarin geslaag om onaangename emosies te onderdruk as diegene in die kontrolegroep. Verskille in emosionele welstandtellings wat met geslag verband hou, is opgemerk; ’n toename is by vroue in die proefgroep opgemerk in areas soos probleemgefokusde hantering, onderdrukking van onaangename emosies, totale self-effektiwiteit, en sosiale welstand.

Hierdie studie het getoon dat ’n groot persentasie van universiteitstudente in Tanzanië as florerend beskou kan word. Resultate van die studie bevestig dat hoër vlakke van psigologiese welstand bereik kan word deur middel van programme wat spesifiek daarop gemik is. Die welstandbevorderingsprogram impliseer die nodigheid om ander programme te ontwikkel wat aangepas is vir verskillende bevolkingsgroepe vanuit ’n voorkomende perspektief.

Hierdie studie dra by tot die veld van positiewe sielkunde deur inligting te verskaf oor die voorkomsvlakke van psigologiese welstand in ’n spesifieke bevolkingsgroep se universiteitstudente. Dié inligting kan navorsers wat op adolessente en jong volwassenes fokus,

help om welstandbevorderingsprogramme te ontwikkel. Die studie stel ook die inhoud van ’n welstandbevorderingsprogram vir positiewe geestesgesondheid van mense voor. Ten slotte gee die studie ook aanbevelings vir toekomstige navorsing, asook verdere toepassing van die welstandsprogram.

PREFACE

Article format

For the purposes of this thesis, the article format as described by General Regulation A13.7 of the North-West University was chosen.

Selected journal

The selected journal for submission of the current manuscripts is the *Journal of Psychology in Africa*. The manuscripts as well as the reference list have been styled to the journal's specifications (APA 6).

Letter of consent

The letter of consent from the co-authors in which they grant permission that the manuscripts may be submitted for the purposes of a thesis to the first author, J. Rugira, appears on the next page.

Page numbering

In the thesis, page numbers run through the whole document. For submission in the above-mentioned journal, manuscript numbering will be according to the requirements and thus start on the title page of the manuscript.

Letter of consent

We, the undersigned hereby give permission that the manuscripts:

(1) *The prevalence of psychological well-being among Tanzanian university students;*

(2) *Development of a well-being promoting programme for university students in Tanzania*

(3) *Evaluating the effect of a psychosocial well-being programme for students at a Tanzanian University.*

may be submitted by Janvier Rugira for the purposes of a doctoral degree.

Dr A. W. Nienaber	Prof. M.P. Wissing
Promotor	Co-promotor

SECTION 1: INTRODUCTION

This study focuses on the level of psychological well-being of students in Tanzanian universities, as well as the development and evaluation of a programme to enhance it. The study was carried out within the paradigm of positive psychology, which focuses on psychological strengths and health, rather than on human suffering and abnormalities.

Martin Seligman's presidential address to the American Psychological Association in 1998, which was later published in the *American Psychologist* as the introduction article, lead to Positive Psychology becoming prominent in the field of Psychology (Seligman & Csikszentmihalyi, 2000). This article stated that the movement aims at building positive qualities in life, as opposed to the previous focus in psychology, which preoccupied itself with repairing the worst things in life.

In most cases, the concept of well-being has been approached from a context-free perspective portraying both general life satisfaction and characteristic level of an individual affect whether positive or negative (Brown & Lent, 2008). Phillips (2005) states that the concept of well-being is clearly central to a very broad range of areas of inquiry in philosophy and elsewhere, such as in law, medicine, and education. Richter (2002) studied the correlation between Christian spiritual well-being and psychological well-being. There has also been interest in some specific aspects of well-being, such as its relationship to job satisfaction and research on the relationship between well-being and sustainable development (Dolan et al., 2006).

While the university student population form a very significant social group in society, there seems to be no indication of a study that has devoted itself specifically to the psychological well-being of university students in Tanzania. In their study on psychological well-being and general health of Jordanian university students, Marmash and Hamdan-Mansour (2007) reported

that students perceived their own psychological well-being as moderate with no positive correlation to general health. Marmash and Hamdan-Mansour (2007) mentioned the implication of their findings among mental health nurses, but did not develop a programme to enhance psychological well-being of the students or recommend that such a programme be developed. Laureano (2008) studied university students' strengths and coping, however the study only focused on rugby players of the North-West University and did not address the general student population issues.

Although no studies on university students in Tanzania could be found, some studies were conducted in schools. Mental health and well-being in the school context, has been studied by Knuver and Brandsma (1993), who studied both cognitive and affective outcomes in schools, while Opdenakker and Van Damme (2000) and Samdal (1998) studied the affective outcomes referred to attitudes the student have towards school and learning. Konu and Lintonen (2006) studied the well-being of Finnish children in grade 4-12 and found the highest correlation between the means for self-fulfilment and social relationships categories; means for self-fulfilment also correlated with the school conditions category. The lowest correlation was found between the school conditions and health status categories. Konu and Lintonen (2006) used a well-being questionnaire having of eight indicators: well-being in school, social integration in the class, relationships with teachers, interest in learning tasks, motivation towards learning tasks, attitude towards homework, attentiveness in the classroom, and academic self-concept. This study revealed that schools and classes have a higher influence on pupil's performance than on his/her well-being. In their study to investigate how happiness and life satisfaction contribute to students' behaviour and attitudes, Khramtsova, Saarnio, Gordeeva, and Williams (2007) found that depression and psychological well-being are related to intrinsic motivation. They also

concluded that positive constructs of happiness and life satisfaction predict students' behaviour and attitudes over and above depression.

In a developing country like Tanzania, university students are often exposed to poverty and many become victims of exploitation and violence. However, they are also increasingly involved in forms of negative behaviour. While reporting on causes of strikes among Tanzanian university students, the Ministry of Science, Technology and High Education (MSTHE) (2004) states that students strike because of the high cost of living, poor food services, inadequate accommodation facilities, lack of health facilities, poverty, and lack of water. Indeed, as Ruheni (1973) puts it, since university students are the leaders of tomorrow, something needs to be done to develop well-being programmes, so as to promote well-being in students and nurture healthy future leaders who can foster positive change in various capacities upon completion of their university training. Studies suggest that only a small percentage of those otherwise free of common mental disorders, are truly mentally healthy, i.e. flourishing (Keyes, 2002). In other words, the absence of mental illness is only a necessary, but not a sufficient condition for complete mental health.

There have been several programmes to enhance strengths among various population groups in educational settings and most of these programmes or interventions focused mainly on secondary schools (adolescents). Programmes cited by Ruini et al. (2009) include: the Paths Curriculum (Kam, Greenberg, & Walls, 2003) for the promotion of social competence and the prevention of aggressive behaviour; the Gatehouse Project (Patton, Bond, Butler, & Glover, 2003) for increasing the attachment and the sense of belonging to a school in students. The Bounce Back Programme (McGrath & Noble, 2003) and Bright Ideas (Brandon & Cunningham, 1999), for promoting resilience and coping skills; the Penn Resiliency Programme (Gillham,

Reivich, Freres, Chaplin, Shatte, & Samuels, 2007; Gillham, Reivich, Jaycox, & Seligman, 1995) for promoting optimism and preventing depression; as well as the Stress Inoculation Training (Meichenbaum & Deffenbacher, 1998) or the Coping Cat (Kendall, 1994) for preventing anxiety in children and adolescents. However, none of these programmes specifically address issues such as the levels of psychological well-being in university students in Tanzania, or the development of a programme to promote strengths among the university students.

This study addresses issues related to the psychological well-being of university students in Tanzania. University students form a complex population of various age groups that has its own unique form of psychological well-being. In addition, university students are in a transformational phase of intellectual, social, and psychological development that involves great opportunities for new things: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance – factors that are proposed in Ryff's model and scale of psychological well-being (Ryff & Keyes, 1995). If these factors are not properly developed, the chance of diminished mental health increases markedly, thereby endangering the students' envisioned future. Focusing on psychological well-being models by Keyes (2002) and Ryff (1989), this study will thus build on the strengths of students, emphasising proactive, rather than reactive approaches (Martin & Marsh, 2007).

According to Seligman (1998) the promotion of strengths in university students could serve as a shield against mental illness. It is in this manner that this study views enhancement of psychological strengths as an ideal intervention that could contribute to the prevention of depression, substance abuse, HIV/AIDS infections, and schizophrenia, which are all part of the students' vulnerability in the world in which they live. Tanzania's potential body of manpower and professionals are housed in universities. The MSTHE (2005) statistics of 2004/2005

academic year shows that 48,236 were registered as students in higher learning institutions in Tanzania and this research looks at them as potential problem solvers. Promotion of mental health as a policy to be implemented may thus benefit the entire country.

In view of the above considerations, this study on university students' psychological well-being is geared to developing a programme to enhance their well-being.

Enhancing the strengths of university students can best be accomplished in a project, which can be defined as a well-being programme aimed at good mental health. Such a programme could basically use Ryff's (1989) and Keyes' (2002) respective models with links to other models like Konu and Rimpelä (2002) School Well-being Model. This study will primarily make use of Ryff's Six Factor Model of psychological well-being as theoretical backdrop. Key facets include: self-acceptance, positive relationships, autonomy, environmental mastery, purpose in life, and personal growth (Keyes, Ryff & Shmotkin, 2002; Ryff & Keyes, 1995).

The contribution of this study includes the establishment of the prevalence of various levels of well-being in a Tanzanian group of students, as well as the development and evaluation of a programme to enhance psychological well-being among university students from a positive psychological framework. Furthermore, this study increases knowledge and understanding of psychological well-being among university students. The results of this study may inform both students and psychology professionals on the importance of strengths, coping skills and a positive psychological approach.

Aims

The aims of this study were:

(i) To explore the prevalence of various degrees of psychological well-being among Tanzanian university students;

(ii) To develop a programme to enhance psychological/psycho-social well-being in university students.

(iii) To implement and evaluate the effect of a programme to enhance psychological/psycho-social well-being in university students.

Participants

The participants of this study were first and second year university students (undergraduate) in the young adulthood phase of development. For the first phase (establishment of the nature and prevalence of various degrees of mental health), participants from all universities in the Arusha Region, were asked to participate. These students completed the Mental Health Continuum – Short Form (MHC-SF) of Keyes (2006), as a pre-test to determine their levels of flourishing or languishing. This measure includes the facets hypothesised in Ryff's (1989) model.

The implementation and evaluation of the psychological well-being programme were conducted at one university where the participants were assigned to a control and an experimental group.

Procedures

This study was conducted in three different but independent phases as follows:

In the first phase: evaluation of levels of psychological health of university students in Tanzania, students were selected from three universities.

Phase two of this research project focused on the findings of phase one to design a well-being programme for university students. Apart from the data collected in phase one of this

study, literature of existing programmes of well-being in other different population groups were referred to for the development of a programme. Phase two ended with the completion of the university students' well-being programme, ready for implementation.

For the third phase, an experimental group of students were asked to voluntarily enrol for the programme. This experimental group took part in the well-being programme while the control group received no intervention. Both groups will be pre-tested and post-tested.

Data gathering

For phase 1 and 3, socio-demographic information (age, gender, programme of study, year of enrolment and economic status) were collected, while phase 2 of the study do not require data collection. In phase 1 of the study, additional quantitative data regarding psychological well-being were collected by using the Mental Health Continuum of Keyes (2006), which measures the degree of i) emotional well-being (EWB), ii) social well-being (SWB), and iii) psychological well-being (PWB). For phase 3, other quantitative data regarding psychological well-being were gathered by using the Coping Self-Efficacy Scale (CSE) of Chesney, Neilands, Chambers, Taylor, and Folkman, (2006), the Patient Health Questionnaire: Depression Symptoms (PHQ-9) (Kroenke, Spitzer & William, 2001), and the Trait Hope Scale (THC) (Snyder et al., 1991).

Ethical consideration

Permission to conduct this research was obtained for the larger FORT 3 project from the Ethical Committee of the North-West University, Potchefstroom Campus (NWU- 00002-07-A2). Permission for administering the measurement scales were also obtained from the authors for use in the overarching FORT project. Permission to conduct the research on the different campuses was obtained from the relevant authorities. Respondents of the research must give informed consent in written form before taking part in the research. Participants took part in the research anonymously and on a voluntary basis, and they were informed that they can leave the programme at any stage if they wish to.

Statistical analyses

Quantitative data will be analysed using Statistical Package for Social Sciences (SPSS) version 11.5 and Statistica (Marques de Sa, 2003). The Cronbach alpha reliability indices were determined for all measures used.

Structure of the research report

This study is reported in the form of three articles in line with the specific aims referred to above and integrated with a general introduction (this section) and a general conclusion. The three articles are:

Article 1: *The prevalence of psychological well-being among Tanzanian university students;*

Article 2*: Development of a well-being promoting programme for university students in Tanzania*

Article 3: *Evaluating the effect of a psychosocial well-being programme for students at a Tanzanian university.*

These articles are to be submitted for publication in the *Journal of Psychology in Africa*.

References

Brown, D. S., & Lent, W. R. (2008). Social cognitive career theory and subjective well-being in the context of work. *Journal of Career Assessment, 16*(1), 6-21.

Chesney, M. A., Neilands, T. B., Chambers, D. B., Taylor, J. M., & Folkman, S. (2006). A validity and reliability study of the Coping Self-Efficacy Scale. *British Journal of Psychology*, *11*, 421-437.

Dolan, P., Peasgood, T., Dixon, A., Knight, M., Phillips, D., Tsuchiya, A., & White, A. (2006). *Research on the relationship between well-being and sustainable development.* London, England: Tanaka Business School, Imperial College.

Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *American Journal of Orthopsychiatry, 76*, 395-402.

Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Research, 43,* 207-222.

Keyes, C. L. M., Ryff, C. M., & Shmotkin, D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology*, *82*(6), 1007-1022.

Khramtsova, I., Saarnio, D. A., Gordeeva, T., & Williams, K. (2007). Happiness, life satisfaction, and depression in College students: Relations with student behaviors and attitudes. *American Journal of Psychological Research, 3*(1), 8-16.

Knuver, A. W. M., & Brandsma, H. P. (1993). Cognitive and affective outcomes in school effectiveness research. *School Effectiveness and School Improvement, 4*,189-203.

Kroenke, K., Spitzer, R. L., & William, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Medicine, 16,* 606-613.

Konu, I. A., & Lintonen, T. P. (2006). School well-being in Grades 4-12. *Health Education Research, 21*(5), 633-642.

Konu, A. I., & Rimpelä, M. K. (2002). Well-being in schools: a conceptual model. *Health Promot Int, 17,* 79–87.

Laureano, C. M. D. (2008). *Development of an experiential learning programme aimed at facilitating coping strategies and well-being of university rugby players.* (Unpublished PhD thesis), North-West University, Potchefstroom Campus, South Africa.

Marmash, L. R., & Hamdan-Mansour, A. M. (2007). Psychological well-being and general health of Jordanian university students. *Journal of Psychosocial Nursing, 45*(10), 31-39.

Marques de Sa, J. P. (2003). *Applied statistics using SPSS, Statistica and Matlab*. New York, USA: Springer

Martin, A. J., & Marsh, H. W. (2007). Academic buoyancy: Towards an understanding of students' everyday academic resilience. *Journal of School Psychology, 46,* 1-31.

Opdenakker, M.-C., & Van Damme, J. (2000) Effects of schools, teaching staff and classes on achievement and well-being in secondary education: similarities and differences between school outcomes. *School Effectiveness and School Improvement, 11,* 165–196.

Phillips, L. P. (2005). *Beyond well-being.* (Unpublished doctoral dissertation). College of Bowling Green State University, OH, USA.

Richter, R. J. (2002). Correlation of psychological well-being and Christian spiritual wellbeing at a small Christian liberal arts college in the urban Midwest [electronic version]. *CHARIS: A Journal of Faculty Scholarship, 2*(1), 39-46.

Ruheni, M. (1973). *The Future Leaders*. Nairobi, Kenya: African Writers Series.

Ruini, C., Ottolini, F., Tomba, E., Belaise, C., Albieri, E., Visani, D., Offidani, E., Caffo, E., & Fava, G. A. (2009). School intervention for promoting psychological well-being in adolescence. *Journal of Behavior Therapy and Experimental Psychiatry, 40*, 522-532.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 64*(4), 719-729.

Samdal, O. (1998). *The School Environment as a Risk or Resource for Students' Health-Related Behaviours and Subjective Well-Being*. Bergen, Norway: Research Centre for Health Promotion, University of Bergen.

Seligman, M. E. P. (1998). *Learned Optimism.* New York, NY, USA: Pocket Books.

Seligman, E. P. M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *15*(1), 5-14.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*, 570-585.

Ministry of Science, Technology and High Education. (2004). *Ripoti ya Kamati ya Uchunguzi kwa Umma Kuhusu Vyanzo vya Migomo ya Wanafunzi katika Vyuo vya Elimu ya Juu Nchini Tanzania.* Dar es Salaam, Tanzania. Author.

Ministry of Science, Technology and High Education. (2005). *Basic Statistics on Science, Technology and Higher Education 2000/2001-2004/2005 in Tanzania*. Dar es Salaam, Tanzania. Author.

SECTION 2: ARTICLE 1

Investigating the prevalence and various degrees of psychological well-being among Tanzanian university students

For submission to the

Journal of Psychology in Africa

2.1 Guideline for authors: *Journal of Psychology in Africa*

INSTRUCTIONS TO AUTHORS

The **Journal of Psychology in Africa** includes original articles, review articles, book reviews, commentaries, special issues, case analyses, reports, special announcements, etc. Contributions should attempt a synthesis of local and universal methodologies and applications. Specifically, manuscripts should:

1) Combine quantitative and qualitative data, 2) Take a systematic qualitative or ethnographic approach, 3) Use an original and creative methodological approach, 4) Address an important but overlooked topic, and 5) Present new theoretical or conceptual ideas.

Also, all papers must show an awareness of the cultural context of the research questions asked, the measures used, and the results obtained. Finally the papers should be practical, based on local experience, and applicable to crucial development efforts in key areas of psychology.

Editorial policy

Submission of a manuscript implies that the material has not previously been published, nor is it being considered for publication elsewhere. Submission of a manuscript will be taken to imply transfer of copyright of the material to the publishers, Elliott & Fitzpatrick. Contributions are accepted on the understanding that the authors have the authority for publication. Material accepted for publication in this journal may not be reprinted or published, Elliott & Fitzpatrick. The Journal has a policy of anonymous peer review. Papers will be scrutinised and commented on by at least two independent expert referees or consulting editors as well as by an editor. The Editor reserves the right to revise the final draft of the manuscript to conform to editorial requirements.

Manuscripts

Manuscripts should be submitted in English, French, Portuguese or Spanish. They should be typewritten and double-spaced, with wide margins, using one side of the page only. Manuscripts should be submitted to the Editor-in-Chief, Journal of Psychology in Africa, Professor Elias Mpofu, PhD., CRC, Associate Professor, Faculty of Health Sciences, University of Sydney, Cumberland Campus, East Street, PO Box 170 Lidcombe NSW 1825, Australia, email: e.mpofu@usyd.edu.au. We encourage authors to submit manuscripts via e-mail, in MS Word, but we also require two hard copies of any e-mail submission. Before submitting a manuscript, authors should peruse and consult a recent issue of the *Journal of Psychology in Africa* for general layout and style. Manuscripts should conform to the publication guidelines of the latest edition of the American Psychological Association (APA) publication manual of instructions for authors.

Manuscript format

All pages must be numbered consecutively, including those containing the references, tables and figures. The typescript of manuscripts should be arranged as follows:

Title: This should be brief, sufficiently informative for retrieval by automatic searching techniques and should contain important key-words (preferably <10 words).

Author(s) and Address(es) of author(s): The corresponding author must be indicated. The author's respective addresses where the work was done must be indicated. An e-mail address, telephone number and fax number for the corresponding author must be provided.

Abstract: Articles and abstracts must be in English. Submission of abstracts translated to French, Portuguese and/or Spanish is encouraged. For data-based contributions, the abstract should be structured as follows: *Objective*—the primary purpose of the paper, *Method* – data source, subjects, design, measurements, data analysis, *Results* – key findings, and *Conclusions* – implications, future directions. For all other contributions (except editorials, letters and book reviews) the abstract must be a concise statement of the content of the paper. Abstracts must not exceed 120 words. It should summarize the information presented in the paper but should not include references.

Referencing: Referencing style should follow APA manual of instructions for authors.

References in text: References in running text should be quoted as follows: (Louw & Mkize, 2004), or (Louw, 2004), or Louw (2000, 2004a, 2004b), or (Louw & Mkize, 2004), or (Mkize, 2003; Louw & Naidoo, 2004). All surnames should be cited the first time the reference occurs, e.g., Louw, Mkize, and Naidoo (2004) or (Louw, Mkize, & Naidoo, 2004). Subsequent citations should use **et al.**, e.g. Louw et al. (2004) or (Louw et al., 2004). 'Unpublished observations' and 'personal communications' may be cited in the text, but not in the reference list. Manuscripts accepted but not yet published can be included as references followed by 'in press'.

Reference list: Full references should be given at the end of the article in alphabetical order, using double spacing. References to journals should include the author's surnames and initials, the full title of the paper, the full name of the journal, the year of publication, the volume number, and inclusive page numbers. Titles of journals must not be abbreviated. References to books should include the authors' surnames and initials, the year of publication, the full title of the book, the place of publication, and the publisher's name. References should be cited as per the examples below:

Appoh, L. (1995). *The effects of parental attitudes, beliefs and values on the nutritional status of their children in two communities in Ghana* (Unpublished master's thesis). University of Trondheim, Norway.

Peltzer, K. (2001). Factors at follow-up associated with adherence with directly observed therapy (DOT) for tuberculosis patients in South Africa. *Journal of Psychology in Africa, 11,* 165-185.

Sternberg, R. J. (2001, June). *Cultural approaches to intellectual and social competencies*. Paper presented at the Annual Convention of the American Psychological Society, Toronto, Canada.

Cook, D. A., & Wiley, C. Y. (2000). Psychotherapy with members of the African American churches and spiritual traditions. In P. S. Richards & A. E. Bergin (Ed.), *Handbook of psychotherapy and religiosity diversity* (pp. 369-396). Washington, DC: American Psychological Association.

Tables: Tables should be either included at the end of the manuscript or as a separate file. Indicate the correct placement by indicating the insertion point in brackets, e.g., <Insert Table 1 approximately here>. Tables should be provided as either tab-delimited text or as a MS Word table (One item/cell). Font for tables should be Helvetica text to maintain consistency.

Figures/Graphs/Photos: Figures, graphs and photos should be provided in graphic format (either JPG or TIFF) with a separate file for each figure, graph or photo. Indicate the correct placement by indicating the insertion point in brackets, e.g., <Insert Figure 1 approximately here>. Provide the title for the item and any notes that should appear at bottom of item in the manuscript text. Items should be cropped to avoid the appearance of superfluous white space around items. Text on figures and graphs should be Helvetica to maintain consistency. Figures must not repeat data presented in the text or tables. Figures should be planned to appear to a maximum final width of either 80 or 175 mm. (3.5 or 7.0"). Complicated symbols or patterns must be avoided. Graphs and histograms should preferably be two-dimensional and scale marks provided. All lines should be black but not too heavy or thick (including boxes). Colour only in photos or colour sensitive graphic illustrations. Extra charges will be levied for colour printing.

Text: 1. Do not align text using spaces or tabs in references. Use on of the following: (a) use CTRL-T in Word 2007 to generate a hanging indent or (b) MS Word allows author to define a style (e.g., reference) that will create the correct formatting. 2. Per APA guidelines, only one space should follow any punctuation. 3. Do not insert spaces at the beginning or end of paragraphs. 4. Do not use colour in text.

Lead authors will receive a complimentary issue of the journal issue in which their article appears. Reprints in PDF format can be purchased from the publishers, Elliott & Fitzpatrick. The Journal does not place restriction on manuscript length but attention is drawn to the fact that a levy is charged towards publication costs which is revised from time to time to match costs of production. Instructions for remitting the publication levy are provided to lead or corresponding authors by the Editorial Assistant of the journal.

Instructions to authors are available at:

http://www.elliottfitzpatrick.com

2.2. Manuscript: Investigating the Prevalence and Various Degrees of Psychological Well-Being among Tanzanian University Students

.

Investigating the prevalence and various degrees of psychological well-being among Tanzanian university students

J. Rugira, A. W. Nienaber, M. P. Wissing

School of Psychosocial Behavioural Sciences, North-West University: Potchefstroom Campus, Potchefstroom.

Please address correspondence to J Rugira c/o dr. A. W, Nienaber, School for Psychosocial Behavioural Sciences, North-West University: Potchefstroom Campus, Private Bag X6001, Potchefstroom, 2520, South Africa.

E-mail Alida.Nienaber@nwu.ac.za

E-mail: jnrugira@yahoo.fr

Abstract

The aim of this study was to explore the prevalence and the levels of psychological well-being in a group of Tanzanian university students. A quantitative cross-sectional survey design was implemented for data-gathering. A convenience sample of 279 undergraduate students (19 to 40 years) from three universities completed the Mental Health Continuum – Short Form (MHC-SF), as measure of levels of well-being. Findings indicated the prevalence of levels of positive mental health in this group of university students in Tanzania as follows: 3.5% languishing, 23.6% moderately mentally healthy and 72.7% flourishing. The percentage of flourishing participants is much higher than found in previous studies, and possible reasons are therefore explored. Promotive and preventative programmes may ensure maintenance of well-being in students who are flourishing and may enhance mental health in those who are moderately mentally healthy or languishing.

Key words: Psychological well-being, flourishing, positive psychology, prevalence, university students, Tanzania

Investigative the prevalence and various degrees of psychological well-being among Tanzanian University students

The profound transformation of urbanisation and industrialisation that has taken place in Tanzania for over 30 years, have been accompanied by changes in the societal fabric that unite people, and promote and maintain mental health among them (Kilonzo & Simmons, 2005). These changes are paired with mushrooming educational institutions where psychological well-being of university students is equally important in order to produce a healthier workforce for the country. Kilonzo and Simmons (2005) further maintain that the process of urbanisation weakens the social fabric, much like what occurs when men migrate to towns. The overall effect of these changes is the rapid undermining of traditional social support networks, leaving little time for new institutions emerging to replace the psychological support that man needs.

Tanzania is one of the five member countries of the East-African Community. It is located immediately south of the Equator and encompasses 945,000km². In 2006, the estimated population was 38,329,000, with an estimated growth rate of 2%. Population distribution is extremely uneven, with density varying from 1 person per square kilometre (3/mi²) in arid regions, to 51 per square kilometre (133/mi²) in the mainland's well-watered highlands, and 134 per square kilometre (347/mi²) in Zanzibar (National Bureau of Statistics, 2010). A significant proportion of the population (45.8%) is below age 15 (Bureau of Statistics, 1991). Although it is moving towards urbanisation, Tanzania is ranked amongst the poorest countries in the world.

The traditional Tanzanian society often includes several extended families within a larger family group as the main social institution. This family group provides spiritual and emotional relief, social support, security, education, and it defines the moral and ethical system within which the community is intricately bound together.

Mental health services and/or healing processes are intimately related to traditional religious experience. The traditional religion also implies the state of being healthy and the healing process has been described elegantly by (Mbiti, 1969) as an ontological phenomenon. Kilonzo and Simmons (2005) affirm that the traditional Tanzanian society is viewed as being mentally healthy in the intricately intertwined spiritual, mental, social and physical realms. The state of being healthy therefore does not only entail harmony among individuals in the community, but a harmonious relationship between the community and the physical environment, as well as the spiritual world of the ancestors and the gods who sustain them. For university students, the well-being issue is of particular significance due to the uniqueness of their educational environment where students are not exempted from poverty, forcing them to become victims of exploitation and violence. They are also increasingly involved in forms of negative behaviour. Beyond these general shared concerns with the rest of the population, university students in Tanzania are particularly affected by academic demands and multicultural adjustment among others, and deserve systematic investigation of the prevalence of levels of psychological well-being. In addition to these challenges, university students in Tanzania seem to have a proven strength that have kept them going and needs to be identified and strengthened for quality living and success in life.

Positive Psychology and Well-being

The field of positive psychology was first announced to mainstream psychology in 1998 and was later explicated in the *American Psychologist* as the introduction article (Seligman & Csikszentmihalyi, 2000). Positive psychology, as a new movement of research and practice in psychology, embraces the nature and dynamics of psychological well-being and strengths (Wissing, 2006). Psychological well-being refers to positive mental health. Research has shown

that psychological well-being is a diverse multidimensional concept (Ryff, 1989; Wissing & Van Eeden, 2002), which develops through a combination of emotional regulation, personality characteristics, identity, and life experience (Helson & Srivastava, 2001). Keyes (2002) argues that the probability for optimal well-being can decrease as age, education, extraversion, and conscientiousness increase and neuroticism decreases.

Beginning from a firm belief that "positive health is more than the absence of illness" (Ryff & Singer, 1998, p. 1; Ryff, 1989) suggested that psychological well-being comprises of *living well* (in contrast to the notion of subjective well-being, which refers to *feeling well*); which is highly parallel to the characteristics of a healthy personality set forth by (Erikson, 1959; Vleioras & Bosma, 2005). In order to define the criteria for psychological well-being, Ryff (1989) reviewed Aristotle's concept of *eudaimonia*, which states that the highest of all good achievable by human action is happiness. This 'happiness' refers, according to Aristotle, to an activity in accord with virtue, which is in essence growing toward realisation of the best in ourselves. Connected to eudaimonia is the concept of hedonia, which (Seligman, 2002) identified as the component with pleasure and engagement. Ryan and Deci (2001) viewed hedonic well-being as subjective happiness, and the experience of pleasure focusing upon revealed subjective experience of pleasure and satisfaction. Ryff (1989) further argues that the definition and development of psychological functioning can be traced back from Maslow's 1968 concept of self-actualisation, Rogers' (1961) client-centred theory, Allport's (1950) concept of maturity, and Erikson's (1959) psychosocial model. Ryff (1989) concluded that the above theories and many others, aim at the end result of holding a positive opinion about oneself (self-acceptance), being able to choose or create contexts appropriate for one's psychological condition (environmental mastery); having warm and trusting relationships and being able to love (positive

relations with others); having goals, intentions, and a sense of direction (purpose in life); continuous development of one's potential (personal growth); and being self-determined and independent (autonomy).

In an effort to empirically assess the nature and incidence of mental *health*, as opposed to mental illness, (Keyes, 2002) further built on (Ryff's, 1989) model, and introduced his concept of "flourishing" in what has been called "the first balanced framework for understanding and promoting mental health" (Snyder, 2003, p. 702). Not unlike mental illness, mental health according to Keyes' model is defined as "an emergent condition based on the concept of a syndrome" (Keyes et al., 2008, p. 182). In other words, a state of *health* is indicated when a set of symptoms or characteristics at a specific level are exhibited for a period of time that coincides with distinctive cognitive and social functioning. Those 'symptoms' Keyes (2002) considered in determining mental health are characteristics of an individual's subjective well-being, which include emotional well-being (positive feelings) and functional well-being (both psychological and social). Keyes's conceptualisation thus includes both the hedonic and eudaimonic components of psychological well-being, as distinguished by (Ryan & Deci, 2001; Waterman, 1993; 2007).

Keyes' (2002) study of *Mental Health in Midlife* marks the beginning of the application of the mental health continuum model to data. Keyes (2002) refers to a 1995 midlife study in the United States on 3,032 adults between the ages of 25 and 74 that clearly revealed that many individuals remain free of mental illness over their whole lifetime, but that the absence of mental illness does not necessarily indicate optimal mental health or flourishing. According to Keyes, Ryff and Shmotkin (2002), subjective well-being emerged in the late 1950s as a relevant index for measuring people's quality of life through the individual's own perception of his/ her life.

Broadly defined, subjective well-being (SWB) consists of "an individual's cognitive evaluation of life, the presence of positive or pleasant emotions, and the absence of negative or unpleasant emotions" (Emmons, 2003, p. 109). Subjective well-being is included in Keyes's model as one of the psychological components of mental health.

Students and well-being

Chung and Pardeck (1995) found that social work undergraduate students appear to have an absence of psychological problems, as defined by life satisfaction, depression, and self-esteem levels. While studying the validity of the Patient Health Questionnaire (PHQ-9) as a screening tool for depression amongst Nigerian university students, Adewuya, Ola and Afolabi (2006) assert that the university is a critical context for studying youth mental health; where students are often undergoing role transitions like moving away from the family home for the first time, residing with other students, and experiencing reduced adult supervision these changes may increase the risk of depression (Read, Wood, Davidoff, McLacken & Campbell, 2002). Transition to university may be particularly difficult in Nigeria, where living and academic conditions in the colleges are poor i.e. lack of appropriate finances and security, moving away from the family for the first time, and reduced adult supervision. The disruption in learning and peer relationships that occur while a young person is depressed might be expected to leave university students at an academic and social disadvantage (low class performance, poor societal integration, etc.) even after the resolution of the original episode of depression (Harrington, Fudge & Rutter, 1993).

Lalor, Katabaro and McCrann (2006) have pointed out that an average of 27% of university students in Tanzania has undergone one or more unwanted sexual experiences before

the age of 18. The latter indicates the possibility of psychological effects on them, and is likely to affect their performance and general psychological functioning.

While university student populations form a very significant social group in society, there seems to be no indication of a study that has devoted itself to the psychological well-being of university students in Tanzania. In their study on psychological well-being and general health of Jordanian university students, Marmash and Hamdan-Mansour (2007) reported that students perceived their own psychological well-being as moderate, with no positive correlation to general health.

The research question for this study is: What is the prevalence and various degrees of mental health, as defined in Keyes' Mental Health Continuum model, in a group of Tanzanian university students. The aim of this study is thus to explore the prevalence and various degrees of psychological well-being (using Keyes' MHC-SF measure) of Tanzanian university students.

Research Method

Design

A cross-sectional survey design was implemented for data-gathering. This design is called cross-sectional because the information that is gathered represents what is going on at only one point in time (Olsen & George, 2004).

Participants

A convenience sample of 279 (91 out of 868 students from the University of Arusha, 103 out of 1644 students from Makumira University College, and 83 out of 697 from Mount Meru

University) undergraduate students aged between 19 to 40 years participated in this study. Information on gender distribution of participants was not gathered for this study.

Measuring instrument

Mental Health Continuum Scale – Short Form (Keyes, 2005). The short form of the Mental Health Continuum Scale (MHC-SF) consists of 14 items measuring well-being. The MHC-SF was chosen, as it has the most prototypical items representing the construct definition for each facet of well-being. Keyes (2009) explains that there are three items (happy, interested in life, and satisfied) to represent emotional well-being; six items (one item from each of the six dimensions), to represent psychological well-being; and five items (one item from each of the five dimensions) representing social well-being. Respondents indicate how often during the past thirty days they experienced a range of fourteen feelings – "never", "once or twice", "about once a week", "2 or 3 times a week", "almost every day", or "every day". To distinguish the levels of well-being, namely, languishing (i.e., low levels of emotional, social, and psychological well-being), moderate mental health, and flourishing (i.e., high levels of emotional, social, and psychological well-being), (Keyes, 2006) indicated specific scoring criteria. Criteria for levels are as follows: To be flourishing, participants must report experiences as "every day" or "almost every day" for at least seven of the characteristics, where one of them is from the hedonic (i.e., emotional well–being) cluster (i.e., happy, interested in life, or satisfied), and the others from the social and personal/psychological well-being (eudaimonic) clusters. To be categorised as languishing, participants must report that they "never" or "once or twice" experienced at least seven of the characteristics, where one of them is from the hedonic (i.e., emotional well-being) cluster and the others from the eudaimonic clusters. Participants who do not fit the criteria for flourishing or languishing are moderately mentally healthy. Keyes (2005; 2006; 2009)

demonstrated that the short form of the MHC has shown excellent internal consistency (> .80) and discriminant validity. Keyes (2009) estimated the reliability of the sub-scales for the short form scales as ranging from .57 for the psychological well-being sub-scale, .64 for the emotional well-being sub-scale, to .71 for the social well-being sub-scale. Keyes et al. (2008) validated the MHC-SF in an African context and reported a Cronbach alpha of .74 for the total scale.

Procedure

Permission to conduct the research was obtained from each respective university. For Makumira University College, permission was obtained from the Dean of the Faculty of Humanities and Social Sciences; from the University of Arusha, the Director of the Research and Consultancy Unit, and the Deputy Vice Chancellor of Mount Meru University, authorised research to be carried at this institution.

Upon receiving permission, students were met during their free time at their respective campuses. Most of the meetings were conducted in halls where they were doing private reading and or chatting. Permission was sought from the respondents before the questionnaire was administered and the research instructions read to them. After the respondents had agreed to participate in the research, instructions on completion of the questionnaire were given. The scale was not translated in any other language; it retained its original language – English.

Ethical consideration

Permission to conduct this research was obtained for the larger FORT 3 project from the Ethical Committee of the North-West University, Potchefstroom Campus (NWU- 00002-07-A2). Participants voluntarily gave informed consent before taking part in the research by means of consent forms explaining the aim of the study. All responses were treated anonymously; not directly attached to any respondent.

Results

Descriptive statistics, reliability indices for MHC-SF

Table 1 shows the descriptive statistics and Cronbach alpha coefficients of the MHC-SF for Tanzanian university students. Mean scores and standard deviations are shown for this scale, and are more or less in line with those reported in the literature. The Cronbach alpha reliability coefficient for the total MHC-SF was 0.79 i.e., acceptable compared to guidelines provided by Kerlinger and Lee (2000) of 0.70. The mean of the inter-item correlations were 0.22. Clark and Watson (1995) recommended a guideline of .15 - .50 for inter-item correlations, with a norm of .15 - .20 for broad constructs, and .40 - .50 for narrower constructs. The item-total correlations ranged between 0.18 and 0.55 for the MHC-SF in this group of Tanzanian university students. Items with the highest means were item 9 to 14 (cluster 3 = *eudaimonic*, psychological well-being). The item with the lowest mean was item 4: Social contribution with a mean of 0.18.

[Insert Table 1 about here]

The prevalence of levels of psychological well-being

The psychological well-being levels of participants in the three Tanzanian universities involved is shown in Table 2. The psychological well-being of participants was found to be more inclined to flourishing, where university 3 reported the highest level of flourishing at 80.7%, university two 68.3%, and university 1 with 70.6%. It is clear that the percentages of participants on the various levels of well-being, as conceptualised in Keyes's model of positive mental health, is higher than to those reported by (Keyes, 2006) for USA adolescents, and that of Van (Schalkwyk, 2009) for South African adolescents. In this sample of Tanzanian university

students 72.7% reported to be flourishing, 3.5% are languishing, and 23.6% are moderately mentally healthy. Therefore, approximately 27% are not flourishing (functioning optimally)

[Insert Table 2 about here]

Discussion

Levels of psychological well-being

Findings indicated the prevalence of mental health in this group of university students in Tanzania are: 3.5% languishing, 23.6% moderately mentally healthy, and 72.7% flourishing as measured with the Mental Health Continuum-Short Form (MHC-SF). This is a far higher percentage of flourishing than reported in the literature in other contexts. Some differences were also noted among the three universities. Possible explanations for these somewhat unexpected findings will be considered. Firstly, religious philosophy and practices in these universities may play a role. All three universities involved have strong religious orientations. The highest level of flourishing students – 80.7% was noted in the Baptist-owned University, which tends to be less conservative compared to the other universities that reported 70.6% and 68.3%, owned and run by the Seventh Day Adventist and the Lutheran Churches of Tanzania respectively. Previous studies have associated prayer with improved psychological well-being (Gubi, 2007; Kaldor & Francis, 2002). This could have been the case in these religiously orientated universities, but the frequency of daily prayers was not observed in this study, and therefore it is not known whether frequency of prayers could explain the differences between the three universities involved in this study. All these three universities practice daily prayer services, which possibly justifies the higher levels of flourishing, as compared to previous studies conducted in other contexts. Many other studies showed a link between spirituality / religiosity and well-being, even though they do

not specifically refer to the prevalence of flourishing participants in the specific contexts; for example, (Ano & Vasconcelles, 2005; Chida, Steptoe & Powell, 2009; Joshanloo, 2010; Koenig, McCullough & Larson, 2001; Myers, 2000). These studies showed that spirituality and religion are related to many dimensions of psychosocial well-being.

Secondly, the differences between the three universities might be connected to the number of students enrolled in the various universities, and therefore the possible levels of attention given to students. The smaller the population, the greater the likelihood of a higher sense of connectedness and sense of belonging, which are likely to lead to much stronger social capital. Phongsavan, Chey, Bauman, Brooks, and Silove (2006) have argued that social networks and social supports can buffer the negative effects of life events on mental health for individuals. Phongsavan et al. (2006) further hypothesised that regardless of mental health status, engaging in social relationships that result in exposure to positive emotional support will enhance individual psychological well-being. Among the three universities, the one with a higher population (university 2) had a relatively lower prevalence of flourishing students, namely 68%. Perhaps this relatively lower prevalence may be explained by less individual contact, connectedness and less attention to individuals. This finding may be in line with that of Fagg, Curtis, Stansfeld, Cattell, Tupuola and Arephin (2008), who indicated that social support within the immediate social circle is important for the wellbeing of young people.

Thirdly, the differences among universities in the prevalence of various levels of psychological well-being could have been caused by various degrees of urbanisation of the universities involved. While all the universities are in the suburbs of Arusha City, the one that scored lower is the closest within the reach of the city and other resources, but with possible higher stress levels; while the remaining two universities are located in quieter outskirts. The

latter would allude to Harpham (2009), who suggests that urbanisation in developing countries involves changes in social fabric and life events, which effects mental health. However, Wissing, Temane, Khumalo, Kruger and Vorster (2010) found that urban areas are associated with higher levels of psychosocial health in a South African context, than in more rural areas; whereas the opposite is true in many developed first world countries. As both South Africa and Tanzania are developing countries, the differences need further exploration.

The social-economic status of students seems to be unrelated to the prevalence of flourishing when study loans are taken as an indication of socio-economic status. Study loans in Tanzania are issued based on the socio-economic status of the applicant, rather than the applicants' repayment ability, hence the needy (poor) are the ones given priority. Findings of this study show that in the year 2011, Makumira University had 74.5% of its students under government study schemes, while Mount Meru University and the University of Arusha had 77% and 69% respectively. In comparison with the level of flourishing between these universities, it seems likely that the socio-economic factors did not explain the differences between universities with regard to prevalence levels of well-being.

Findings from other population groups studied by using the same scale, showed lower prevalence of flourishing but also relatively higher prevalence in student groups. Van Schalkwyk (2009) found that in a group of high school adolescents 42% of South African Youth were flourishing, while 58% were not functioning optimally. Wissing et al. (2008) report findings from a multicultural group of students in a Further Education and Training College (N=1480) that 62.2% were flourishing, 34.3% were moderately mentally health, while 3.5% were languishing. These authors reported 51% flourishing for university students. Keyes (2006; 2007) noted that 38% of youth in the USA were flourishing, 56% were moderately mentally healthy,

and 6% were languishing (N = 1,234). Keyes (2006; 2007), found that only 18% of USA adults were flourishing, 65% moderately mentally healthy, and 17% were languishing in a sample of 3, 032 participants. Wissing et al. (2008) also found lower levels of well-being in adults: a group of teachers showed a prevalence of 28% flourishing, Afrikaans and English-speaking adults 38% flourishing, and various randomly selected groups of Setswana-speaking adults 13% to 52% flourishing. The high prevalence of flourishing students in the Tanzanian group of students is thus in some ways related to other findings on student groups, but still very high in comparison to other student groups, and needs further exploration. It cannot be excluded that confounding variables played a role and may contribute to the explanation of the current findings. For example, Barnes (2009) indicated that a Hawthorne effect often plays a role in community trials in developing countries. This might have been the case in the current study also.

Limitations of this study. A limitation of this study is that the sample is not randomly selected, and only included three universities in Tanzania. Therefore generalisations cannot be made. However, the fact that the same results were found at three different universities give some support to a conclusion that high levels of well-being are reported by students from religiously based universities in Tanzania. Another limitation is that no collateral information was obtained on students' well-being and only self-reported data were obtained. It is also a limitation that not more specific socio-demographic information was obtained from participants.

Conclusion and recommendations

In the current study the specific group of participants showed high levels of well-being in general (many are flourishing), which may be attributed to religious orientations, or other uncontrolled variables, which need further exploration. As Keyes (2007) and others have shown that flourishing decreases with increase in age towards adulthood, it may be important to

preserve the well-being of youngsters and students. Therefore, proactive programmes could be developed to maintain and promote mental health among university students, giving them the skills to stay flourishing, or to strengthen moderately or languishing participants to become more optimal in their functioning. Such a programme should take cognisance of existing programmes and be sensitive to cultural context. Keyes's model (2005) of complete mental health may be an appropriate theoretical backdrop to such a wellness promotive programme.

Future research should also explore the prevalence of psychosocial well-being in other samples in Tanzania and results obtained be compared to results obtained from university students. A qualitative study that focuses on the psychological well-being needs to be carried out to provide more information on the subjective experiences of well-being in students, their views on what well-being entails, the experiences they value, and the domains of life in which they experience the most happiness and meaningfulness. The possibility of a response tendency artefact in the currently found high percentages of flourishing participants should be explored.

References

Adewuya, O. A., Ola, B. A., & Afolabi, O. O. (2006). Validity of the Patient Health Questionnaire (PHQ-9) as a screening tool for depression amongst Nigerian university students. *Journal of Affective Disorders, 96,* 89-93.

Allport, G. W. (1950). *The individual and his religion: Psychological interpretation.* New York, NY, USA: Macmillan Company.

Ambler, V. M. (2006). *Who flourishes in College? Using positive psychology and student Involvement theory to explore mental health among traditionally aged undergraduates.* (Unpublished doctoral dissertation). College of William and Mary, Williamsburg, USA.

Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: a meta-analysis. *Journal of Clinical Psychology*, *61*, 461-480.

Barnes, B. R. (2009). The Hawthorne Effect in community trials in developing countries. *International Journal of Social Research Methodology*. doi: 10.1080/13645570903269096

Chida, Y., Steptoe, A., & Powell, L. H. (2009). Religiosity/spirituality and mortality. *Psychotherapy and Psychosomatics, 78,* 81-90.

Chung, W. S., & Pardeck, J. T. (1995). An empirical analysis of the psychological well-being of undergraduate students majoring in social work. *Family Therapy*, *22*, 121-124.

Emmons, R. A. (2003). Personal goals, life meaning, and virtue: Wellspring of positive life. In Keyes & Haidt (Eds.), *Flourishing: Positive psychology and the life well-lived.* Washington, D.C.: American Psychological Association.

Fagg, J., Curtis, S., Stansfeld, S. A., Cattel, V., Tupuola, A. M., & Arephin, M. (2008). Area social fragmentation, social support for individuals and psychosocial health in young adults: Evidence from a national survey in England. *Social Science and Medicine, 66*(2): 242-54

Gubi, P. M. (2007). *Prayer in counselling and psychotherapy: exploring a hidden meaningful dimension*. London, England: Jessica Kingsley Publishers.

Halualani, R. T. (2008). How do multicultural university students define and make sense of intercultural contact? A qualitative study. *International Journal of Intercultural Relations*, *32*, 1-16.

Harpham, T. (2009). Urbanization and mental health in developing countries: A research role for social scientists, public health professionals and social psychiatrists. *Social Science & Medicine*, *39*(2), 233-245.

Harrington, R. C., Fudge, H., & Rutter, M. L. (1993). Child and adult depression: A test of continuities with data from a family study. *British Journal of Psychiatry*, *162*, 627-633.

Helson, R., & Srivastava, S. (2001). Three paths of adult development: Conservers, seekers, and achievement. *Journal of Personality and Social Psychology*, *80*, 995-1010.

Joshanloo, M. (2010). Investigation of the relation between cultural estrangement and hedonic and eudaimonic aspects of well-being in Iranian young adults. *Personality and Individual Differences, 49*(7), 733-737.

Kaldor, P., & Francis, J. L. (2002). The relationship between psychological well-being and Christian faith and practice in an Australian population sample. *Journal for the Scientific Study of Religion, 41*(1), 179-184.

Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4th ed.). Holt, NY, USA: Harcourt College Publishers.

Keyes, C. L. M. (2002). The mental health continuum: from languishing to flourishing in life. *Journal of Health and Social Research, 43,* 207-222.

Keyes, C. L. M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73,* 539-548.

Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *American Journal of Orthopsychiatry, 76,* 395-402.

Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing. *American Psychologist, 62*(2), 95-108.

Keyes, C. L. M. (2009). *Atlanta*: *Brief description of the Mental Health Continuum short form (MHC-SF).* Retrieved from http://www.sociology.emory.edu/ckeyes/.

Keyes, C. L. M., & Haids, J. (Eds.). (2003). *Flourishing: Positive Psychology and the life well-lived* (pp. 293-312). Washington, D.C.: American Psychological Association.

Keyes, C. L. M., Ryff, C. M., & Shmotkin, D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology*, *82*(6), 1007-1022.

Keyes, C. L. M., Wissing, M. P., Potgieter, J., Temane, Q. M., Kruger, A., & Van Rooy, S. (2008). Evaluation of the Mental Health Continuum Short Form (MHC-SF) in Setswana speaking South Africans. *Clinical Psychology and Psychotherapy: An international Journal of Theory and Practice, 15,* 181-192.

Kilonzo, G. P., & Simmons, N. (2005). Development of Mental Health Services in Tanzania: A reappraisal for the future. *Focus on Mental Health Tanzania*. Moshi, Tanzania.

Koenig, H. G., McCullough, M., & Larson D. B. (2001). *Handbook of religion and health*. New York, USA: Oxford University Press.

Lalor, K., Katabaro, K. J., & McCranna, D. (2006). Childhood sexual abuse among university students in Tanzania. *Child Abuse & Neglect, 30,* 1343-1351.

Marmash, L. R., & Hamdan-Mansour, A. M (2007). Psychological well-being and general health of Jordanian university students. *Journal of Psychosocial Nursing*, *45*(10), 31-39.

Mbiti, J. S. (1969). *African Religions and Philosophy*. London, England: Heinemann.

Myers, D. G. (2000). The funds, friends and faith of happy people. *American Psychologist, 55,* 56-67.

National Bureau of Statistics. (2010). *United Republic of Tanzania in Key Statistics*. Retrieved from http://www.nbs.go.tz/index.php?option=com_content&view=article&id=98

Olsen, C., & George, D. M. (2004). *Cross-sectional study design and data analysis*. Chicago, IL, USA: Walden University.

Phongsavan, P., Chey, T., Bauman, A., Brooks, R., & Silove, D. (2006). Social capital, social-economic status and psychological distress among Australian adults. *Social Science and Medicine, 63,* 2546-2561.

Read, J. P., Wood, M. D., Davidoff, O. J., McLacken, J., & Campbell, J. F. (2002). Making the transition from high school to college: The role of alcohol-related social influence factors in students' drinking. *Substance Abuse, 23*, 53-65.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology, 52*, 141-166.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57,* 1069-1081.

Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry, 9,* 1-28.

Seligman, E. P. M. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfilment*. New York, USA: Free Press.

Seligman, E. P. M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 15*(1), 5-14.

Snyder, C. R. (2003). Book review: "Flourishing: Positive psychology and the life well-lived". *Journal of Social and Personal Relationships, 20,* 702-703.

Van Schalkwyk, I. (2009). *Flourishing in a group of South African adolescents*. (Unpublished doctoral thesis). North-West University, Potchefstroom campus: South Africa.

Vleioras, G., & Bosma, H. A. (2005). Are identity styles important for psychological well-being? *Journal of Adolescence, 28,* 379-409.

Waterman, A. S. (1993). Two conceptions of happiness: contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology, 64,* 678-691.

Waterman, A. S. (2007). On the importance of distinguishing hedonia and eudaimonia when considering the hedonic treadmill. *American Psychologist, 62,* 612-613.

Wissing, M. P., & Van Eeden, C. (2002). Empirical clarification of the nature of psychological well-being. *South African Journal of Psychology, 32,* 32-44.

Wissing, J. A. B, (2006). *Psychological well-being in cultural context: Measurement, patterns and relevance for practice*. (Unpublished doctoral thesis)*:* North-West University, Potchefstroom campus: South Africa

Wissing, M. P., Temane, M., Khumalo, T., Kruger, A., & Vorster, E. (2010, June). *Urbanization ad psychosocial wellbeing: the case of rural versus urban health.* Paper at the 5th European Conference on Positive Psychology, Copenhagen, Denmark.

Table 1.

Descriptive statistics for sub- and total MHC-SF scale

	Valid N	Mean	Minimum	Maximum	Std. Dev.
MHCSF_EWB	274	9.99	0.00	15.00	3.11
MHCSF_SWB	274	15.98	2.00	25.00	5.31
MHCSF_PWB	275	24.73	6.00	30.00	3.91
MHCSF_Total	275	50.75	9.33	70.00	9.74
MHC_KONTIN	273	5.48	1.00	7.00	0.99

MHCSF – Mental Health Continuum Short Form, - EWB – Emotional Well-Being, SWB – Social Well-Being, PWB – Psychological Well-Being

Table 2

Frequencies of levels of well-being for sub- and total groups

Group (N)	% Flourishing	% Moderate	% Languishing
Univ 1(n=92)	70.6	22.8	6.5
Univ 2 (n=104)	68.3	27.9	3.9
Univ 3 (n=83)	80.7	19.3	0.0
Total group (N=279)	72.8	23.7	3.6

Note. Univ 1=University of Arusha; Univ 2=Makumira University College; Univ 3=Mount Meru University

SECTION 3: ARTICLE 2

Development of a programme that promotes psychosocial well-being among university students

For submission to the

Journal of Psychology in Africa

3.2. Manuscript: Development of a programme that promotes psychosocial well-being among university students

INSTRUCTIONS TO AUTHORS

The **Journal of Psychology in Africa** includes original articles, review articles, book reviews, commentaries, special issues, case analyses, reports, special announcements, etc. Contributions should attempt a synthesis of local and universal methodologies and applications. Specifically, manuscripts should:

1) Combine quantitative and qualitative data, 2) Take a systematic qualitative or ethnographic approach, 3) Use an original and creative methodological approach, 4) Address an important but overlooked topic, and 5) Present new theoretical or conceptual ideas.

Also, all papers must show an awareness of the cultural context of the research questions asked, the measures used, and the results obtained. Finally the papers should be practical, based on local experience, and applicable to crucial development efforts in key areas of psychology.

Editorial policy

Submission of a manuscript implies that the material has not previously been published, nor is it being considered for publication elsewhere. Submission of a manuscript will be taken to imply transfer of copyright of the material to the publishers, Elliott & Fitzpatrick. Contributions are accepted on the understanding that the authors have the authority for publication. Material accepted for publication in this journal may not be reprinted or published, Elliott & Fitzpatrick. The Journal has a policy of anonymous peer review. Papers will be scrutinised and commented on by at least two independent expert referees or consulting editors as well as by an editor. The Editor reserves the right to revise the final draft of the manuscript to conform to editorial requirements.

Manuscripts

Manuscripts should be submitted in English, French, Portuguese or Spanish. They should be typewritten and double-spaced, with wide margins, using one side of the page only. Manuscripts should be submitted to the Editor-in-Chief, Journal of Psychology in Africa, Professor Elias Mpofu, PhD., CRC, Associate Professor, Faculty of Health Sciences, University of Sydney, Cumberland Campus, East Street, PO Box 170 Lidcombe NSW 1825, Australia, email: e.mpofu@usyd.edu.au. We encourage authors to submit manuscripts via e-mail, in MS Word, but we also require two hard copies of any e-mail submission. Before submitting a manuscript, authors should peruse and consult a recent issue of the *Journal of Psychology in Africa* for general layout and style. Manuscripts should conform to the publication guidelines of the latest edition of the American Psychological Association (APA) publication manual of instructions for authors.

Manuscript format

All pages must be numbered consecutively, including those containing the references, tables and figures. The typescript of manuscripts should be arranged as follows:

Title: This should be brief, sufficiently informative for retrieval by automatic searching techniques and should contain important key-words (preferably <10 words).

Author(s) and Address(es) of author(s): The corresponding author must be indicated. The author's respective addresses where the work was done must be indicated. An e-mail address, telephone number and fax number for the corresponding author must be provided.

Abstract: Articles and abstracts must be in English. Submission of abstracts translated to French, Portuguese and/or Spanish is encouraged. For data-based contributions, the abstract should be structured as follows: *Objective*—the primary purpose of the paper, *Method* – data source, subjects, design, measurements, data analysis, *Results* – key findings, and *Conclusions* – implications, future directions. For all other contributions (except editorials, letters and book reviews) the abstract must be a concise statement of the content of the paper. Abstracts must not exceed 120 words. It should summarize the information presented in the paper but should not include references.

Referencing: Referencing style should follow APA manual of instructions for authors.

References in text: References in running text should be quoted as follows: (Louw & Mkize, 2004), or (Louw, 2004), or Louw (2000, 2004a, 2004b), or (Louw & Mkize, 2004), or (Mkize, 2003; Louw & Naidoo, 2004). All surnames should be cited the first time the reference occurs, e.g., Louw, Mkize, and Naidoo (2004) or (Louw, Mkize, & Naidoo, 2004). Subsequent citations should use **et al.**, e.g. Louw et al. (2004) or (Louw et al., 2004). 'Unpublished observations' and 'personal communications' may be cited in the text, but not in the reference list. Manuscripts accepted but not yet published can be included as references followed by 'in press'.

Reference list: Full references should be given at the end of the article in alphabetical order, using double spacing. References to journals should include the author's surnames and initials, the full title of the paper, the full name of the journal, the year of publication, the volume number, and inclusive page numbers. Titles of journals must not be abbreviated. References to books should include the authors' surnames and initials, the year of publication, the full title of the book, the place of publication, and the publisher's name. References should be cited as per the examples below:

Appoh, L. (1995). *The effects of parental attitudes, beliefs and values on the nutritional status of their children in two communities in Ghana* (Unpublished master's thesis). University of Trondheim, Norway.

Peltzer, K. (2001). Factors at follow-up associated with adherence with directly observed therapy (DOT) for tuberculosis patients in South Africa. *Journal of Psychology in Africa, 11,* 165-185.

Sternberg, R. J. (2001, June). *Cultural approaches to intellectual and social competencies*. Paper presented at the Annual Convention of the American Psychological Society, Toronto, Canada.

Cook, D. A., & Wiley, C. Y. (2000). Psychotherapy with members of the African American churches and spiritual traditions. In P. S. Richards & A. E. Bergin (Ed.), *Handbook of psychotherapy and religiosity diversity* (pp. 369-396). Washington, DC: American Psychological Association.

Tables: Tables should be either included at the end of the manuscript or as a separate file. Indicate the correct placement by indicating the insertion point in brackets, e.g., <Insert Table 1 approximately here>.

Tables should be provided as either tab-delimited text or as a MS Word table (One item/cell). Font for tables should be Helvetica text to maintain consistency.

Figures/Graphs/Photos: Figures, graphs and photos should be provided in graphic format (either JPG or TIFF) with a separate file for each figure, graph or photo. Indicate the correct placement by indicating the insertion point in brackets, e.g., <Insert Figure 1 approximately here>. Provide the title for the item and any notes that should appear at bottom of item in the manuscript text. Items should be cropped to avoid the appearance of superfluous white space around items. Text on figures and graphs should be Helvetica to maintain consistency. Figures must not repeat data presented in the text or tables. Figures should be planned to appear to a maximum final width of either 80 or 175 mm. (3.5 or 7.0"). Complicated symbols or patterns must be avoided. Graphs and histograms should preferably be two-dimensional and scale marks provided. All lines should be black but not too heavy or thick (including boxes). Colour only in photos or colour sensitive graphic illustrations. Extra charges will be levied for colour printing.

Text: 1. Do not align text using spaces or tabs in references. Use on of the following: (a) use CTRL-T in Word 2007 to generate a hanging indent or (b) MS Word allows author to define a style (e.g., reference) that will create the correct formatting. 2. Per APA guidelines, only one space should follow any punctuation. 3. Do not insert spaces at the beginning or end of paragraphs. 4. Do not use colour in text.

Lead authors will receive a complimentary issue of the journal issue in which their article appears. Reprints in PDF format can be purchased from the publishers, Elliott & Fitzpatrick. The Journal does not place restriction on manuscript length but attention is drawn to the fact that a levy is charged towards publication costs which is revised from time to time to match costs of production. Instructions for remitting the publication levy are provided to lead or corresponding authors by the Editorial Assistant of the journal.

Instructions to authors are available at:

http://www.elliottfitzpatrick.com

Development of a programme that promotes psychosocial well-being among university students

J. Rugira, A.W. Nienaber, M.P. Wissing

Faculty of Health Sciences

School of Psychosocial Behavioural Sciences, North-West University: Potchefstroom Campus, Potchefstroom.

Please address correspondence to J Rugira c/o dr. A. W. Nienaber, School for Psychosocial Behavioural Sciences, North-West University: Potchefstroom Campus, Private Bag X6001, Potchefstroom, 2520, South Africa.

E-mail Alida.Nienaber@nwu.ac.za

E-mail: jnrugira@yahoo.fr

Abstract

Being a university student is a significant stage of social and career development with a complexity of many life challenges, ranging from possible minor stress related to adjustment to the university, to other major mental health problems as observed in the general population. This article argues, with reference to existing literature, the importance of promotion, prevention, and maintenance of psychosocial well-being in a student group, and proposes a well-being programme for students in Tanzania. The purpose of the programme is to maintain and enhance well-being. The suggested programme for the development of well-being in a Tanzanian student group is motivated with reference to existing models, and consists of eight sessions of 50 minutes each, to be run once every week. Key themes covered by the proposed programme include: Self-knowledge, perspective and meaning, hope, relationships, physical exercise, and coping.

Keywords: programme development, well-being promotion, university students, Tanzania

Development of a programme that promotes psychosocial well-being among university students

The Ottawa Charter for Health Promotion highlights the educational context as an important platform for improvement of public health and hypothesised that the basis of health promotion would have to include participation, supportive environment and improvement (World Health Organization, 1986). Fledderus, Bohlmeijer, Smit and Westerhof (2010) observed that there has been increasing interest in positive mental health. The positive mental health approach reported by Fledderus et al. (2010) is built on the assumption that people have an inborn developmental tendency towards personal growth. Haraldsson et al. (2008) is convinced that a considerable gap exists between prevention, mental health promotion, and early intervention. The focus of this study is to present a programme designed to facilitate the enhancement of psychosocial well-being and prevent the de-flourishing of Tanzanian university students.

Keyes and Lopez (2002, p. 49) define complete mental health as "the combination of high levels of symptoms of emotional well-being, psychological well-being, and social well-being, as well as the absence of recent mental illness". Keyes, Ryff and Shmotkin (2002) indicated that the psychological well-being (PWB) tradition was greatly informed by the formulations of human development and existential challenges of life with interest in growth and development. The qualities of PWB, as conceptualised by Keyes (1998), are expressed in six dimensions that first includes self-acceptance, alluding to people's attempts to feel good about themselves even while they are aware of their own limitations; second is positive relations with others, which implies a person seeking to develop and maintain warm and trusting interpersonal relationship; third is environmental mastery, which refers to people's desire to shape their environment so as to meet personal needs and desires; fourth is autonomy, which assumes

sustaining individuality with a larger context and people seeking a sense of self-determination and personal growth; fifth is purpose in life, denoting a vital endeavour to find meaning in one's efforts and challenges; and then the sixth dimension, which is about personal growth and refers to making the most of one's talents and capabilities. As this programme is intended for students, the future is an important facet to keep in mind, and therefore hope should also be build (Snyder, 2002).

Despite the existence of literature justifying the importance of people's well-being, Walsh (2011) maintains that mental health professionals have neglected or underutilised the importance and advantages of lifestyle factors. Lifestyle changes have significant advantages like the improvement of physical health and aspects of psychological well-being (Walsh, 2011). Walsh (2011) promotes the effectiveness of eight different therapeutic lifestyle changes (TLCs). Van Velden (2005) also stresses the importance of lifestyle modifications as part of a holistic approach towards well-being enhancement. In line with the above findings, the lifestyle changes that could be beneficial in the proposed programme to enhance well-being in a group of Tanzanian students, are exercise, relaxation, stress management and positive relationships. These dimensions link well with Keyes' model that will be used as a backdrop for the proposed programme. The development of mental health and well-being can be seen and promoted by moving from a risk-reduction model to a competence enhancement model (Fledderus et al., 2010).

As Ryff and Keyes (1995) elaborate, people's close social relationships are the key psychological needs, which are wired into human beings leading to higher social well-being. In this connection, it is important to recognise the importance of relationships in psychological well-being development. Wright, Courtney and Crowther (2002) stress the fact that relationship

with others provides social integration, reassurance of worth, emotional aid, and reliable alliance – factors that are consistent with well-being and stress reduction. The role of coping in maintaining psychological well-being cannot be over emphasised. Kim et al. (2003) asserts that effective coping strategies are used by individuals in avoiding psychological distress. As for Kim et al. (2003) the role of physical exercises, general practice is to offer both preventive and therapeutic psychological benefits. Fox (1999) and Walsh (2011) have well documented physical exercises as an inexpensive practice that reduces the risk of depression, as well as neurodegenerative disorders such as Alzheimer's and Parkinson's diseases. Other proven benefits of physical exercises include enhancing intellectual capacities, social functions, emotional states, and caregiver distress.

Emphasis on well-being promotion and related qualities in higher educational programmes could assist individuals and professional groups to thrive in busy, dynamic workplaces and attain healthy professional self-identities, relevant professional competence and public esteem (McAllister & McKinnon, 2009). Van Schalkwyk (2009) argues that efforts need to be made to develop the highest possible levels of well-being in teenagers and ultimately, in young and older adults. It is argued that in order to survive a psychological challenge, the programme should have in-built mechanisms to recognise and neutralise adversities and their related effects. As with somatic immunity against a specific pathogen, these well-being promoting mechanisms may be innate, or may have been developed: naturally through individual adaptation, or artificially through external influences such as public health activities (Davydov, Stewart & Chaudieu, 2010).

Prevention measures in mental health development

The literature justifies the importance of both prevention and promotion of well-being in the general population as two facets that need equal attention in mental health studies. Rose (2010) is of the opinion that the term "prevention" and "promotion" have interrelated goals and both should be part of a comprehensive mental health approach to working with the population. Rose (2010) further maintains that the goal of the prevention approach in the mental health field is to reduce the occurrence of new cases of dysfunction by addressing risk factors in the whole population. When referring to prevention, Luster, Bates and Johnson (2006) indicated that protective mechanisms interact with risk factors to mitigate the effect of risk when present. Magyary (2002) views mental health promotion as focusing on the development of an optimal state of well-being and enhancing strengths separate from the possibility of risk reduction or the prevention of mental health problems. Krawczynski and Olszewski (2000) argue that later in the adult lifestyle, some mental and physical 'stagnation' can occur. The latter concept is further justified with "depression, hypochondriasis, and a less favourable view of the world" (p. 57). Resilience may vary according to age (e.g. suggested to decrease over 70 years, Rothermund & Brandtstädter, 2003).

Some researchers have associated the concept of mental health promotion to an approach focusing on the development of additional resources, which can be used (applied for) by harm-reduction and protection mechanisms (analogous to pre-immunisation or a general strengthening of the immune system), and have been mainly associated with high individual levels of positive experience (Fredrickson & Joiner, 2002). It has been suggested that the maintenance of mental health in adulthood, despite substantially higher levels of psychosocial stressors (e.g. criminality and worse relationship quality), could be explained by the absence of early physical or sexual

abuse in promoting positive psychological well-being against later adversity (Collishaw et al., 2007). This type of well-being promotion is not restricted to the individual level only but can also be considered to be the result of a variety of external (e.g. community and cultural) factors. Indeed, some social resilience mechanisms such as religion are commonly associated with positive emotions.

Motivation for a new programme

Cohn and Fredrickson (2010) document that a number of positive psychology intervention programmes have helped people to learn and improve skills of personal resources. Overall results have suggested that human beings are willing and able to learn new methods that improve their lives. Whereas high psychological well-being increases performance, the absence of well-being may reduce the possibility for students to carrying out tasks, such as completing their academic careers, establishing themselves in the job market, and building romantic relationships (Van Schalkwyk, 2009).

Therefore it is suggested that a programme intended to maintain and strengthen the psychological well-being of university students in Tanzania, should be developed even though many of them seem to be flourishing (article 1). The first reason to develop a strength-enhancing programme for students is because it has been shown that well-being decline from adolescence to adulthood and that wellness should not only be enhanced, but also protected and maintained (Keyes, 2006; 2007). Studies suggest that only a small percentage of those otherwise free of common mental disorders are truly mentally healthy, i.e. flourishing (Keyes, 2002; 2007); in other words, the absence of mental illness is only a necessary, but not a sufficient condition for complete mental health.

Secondly, the theoretical relationship between disorder and good health has been extensively discussed in relation to somatic health in terms of both treatment and prophylaxis (prevention, protection, and resistance); however, these issues have received substantially less attention in relation to mental health (Davydov et al., 2010). Although terminology relating to somatic disorders, such as trauma and stress, are now commonly used in mental health research and clinical practice, other positive concepts such as immune prophylaxis (Cooreman, Leroux-Roels & Paulij, 2001) and hygiene (Yazdanbakhsh, Kremsner, & van Ree, 2002), although also potentially meaningful in relation to mental health, have not been considered. Davydov et al. (2010) assert that it is only recently that the possibility of an immunity model had been accepted in relation to mental well-being in terms of resilience, meaning more than simply the absence of disorder.

Thirdly, as indicated by Van Schalkwyk (2009), flourishing in developing countries (of which Tanzania is one) requires more specified strategies for survival than "quick fixes". Fourthly, the development of psychological strengths is needed to develop personal resources and to deal effectively with the negative and destructive impact of languishing (Van Schalkwyk, 2009).

Fifth, while great attention has been put on children and adolescents in foster homes (Dubow, Tisak, Causey, & Hryshko, Reid, 1991; Osterling & Hines, 2006), and in due course focused on evaluating coping style, it became clear that university students and people in the adult development phase is left out. Several recent studies on adulthood aim at coping with existing problems such as unemployment resilience of youth in transition from out-of-home care to adulthood (Daining & DePanfilis, 2007), predictors of resilience in abused and neglected children for their development (Widom, Czaja & DuMont, 2007), fostering children's resilience

(Stewart, Reid & Mangham, 1997), and marital difficulties (Laureano, 2005). The current envisaged programme will focus on protective factors that function as a foundation for youth and adult mental health.

Lastly, enhancing and maintaining the strengths of university students can best be accomplished in a project, which can be defined as a well-being programme aimed at good mental health. Such a programme could basically use Keyes' model and link other models like Konu and Rimpelä's (2002) School Well-being Model. Ryff's (2008) six factor model of psychological well-being would thus make it a relevant theoretical frame of reference. In consideration of the above, it is evident that youth and adults deserve particularly important attention in building a mentally healthy society. The current study concurs with the need of a prevention programme to systematically enhance well-being, and to build buffers against stress and risk factors for the future.

A Psycho-educational approach

Psycho-education is an educational model of care delivery, in contrast to a disease model (Buwalda & Bouman, 2008). With psycho-education the roles of clients and health care professionals (such as psychologists, physicians, and nurses) are redefined in terms of "students" and "teachers", respectively. In positive psychology, it is considered important to engage healthy individuals and not only the sick. In this respect the client's predicament is not described in terms of abnormality or disease, but rather as a state of dissatisfaction with a current dysfunctional situation. This leads to the formulation of goals, coping, and problem solving (Buwalda & Bouman, 2008). The beneficiaries of psycho-education can be very diverse, ranging from the general public, to caregivers, family members, and patients themselves.

Psycho-education in itself may take many forms, such as just a phase in a treatment session, an explicit component of such a treatment, or an intervention in its own right. A systematic review of Lukens and McFarlane (2004) showed psycho-education to be effective in various health settings, and this effectiveness often applies to both the patients and their caregivers, especially in evidence-based interventions (Chambless & Hollon, 1998). Psycho-education in this respect is less intensive and is restricted to providing the direction of change, whereas the disease model views patients as passive recipients of care.

The contextualisation of the proposed programme

In this study, mental health promotion is viewed as a process, which occurs throughout the normal lifespan of a person (Richardson, Neiger, Jensen & Kumpfer, 1990). The context of the proposed programme centres not only on key attributes of the university students in their environment, but on strategies that would remain relevant even after completion of their studies. These strategies will inform pathways which university students and mentors may use. Therefore, the currently suggested programme builds on existing knowledge of flourishing and psychosocial well-being. This approach to psychosocial well-being promotion offers several advantages for university students and mentors.

Although various well-being programmes exist, many have neither had widespread use, nor have they been considered for specific populations (Connor & Davidson, 2003). Smith et al. (2007) studied a well-being programme for severe mental illnesses with the aim of reducing the risk for physical ill health. The programme reported improvement in the level of physical activity, smoking reduction, and self-esteem increase, but the programme took a pathology line and focused on non-functioning aspects instead of strengths. In spite of the success reported above, the fact that this study was carried out without a control group suggests that the benefits

cannot be directly associated with the programme. Littlefield and Hemphill (2001) focused their programme on children with behavioural problems. Though the programme reduced the children's behavioural problems and improved their social skills at home, the starting part doesn't fit a resilient population.

Haraldsson et al. (2008) focused their study on a school-based health promotion programme for adolescents, as it relates to stress. With a programme consisting of 25 - 30 sessions, this programme seems to be demanding a lot of time on the side of participants thus making it difficult for university students to fit into this programme. Krawczynski and Olszewski (2000) focused their psychological well-being programme with physical activities for persons over 60 years of age. The participants (n=75) demonstrated statistically significant improvement in all measured psychological variables. However, these programmes do not fit young adult university students because of the age difference and the time requirement designed into this programme doesn't seem to fit into a schedule of a full-time university student. Laureano (2008) chose to focus her study on the well-being of university rugby players. Whereas her programme reflects positive outcomes for university rugby players. This programme may not be the best fit for the general student population.

Suggested programme to enhance and maintain high levels of psychosocial well-being in students

Programme Format

The proposed programme will consist of eight sessions of 50 minutes duration, conducted over eight consecutive weeks. Each session is structured and comprises mini-lectures, demonstrations, brief exercises, and focus group discussion. Facilities, such as whiteboards, transparencies, video fragments, and other course materials are used. Following the mini-lecture,

specific exercises are undertaken to provide the participants with hands-on experience on the topics discussed. At the end of each session participants are encouraged to do some homework assignments for the following session, which in total could take about 30 minutes of the participant's time.

Every session roughly has the same structure. At the beginning of the first session of the programme, participants receive a workbook that includes a summary of the sessions, a description of the model, and homework assignments. In order to find a balance between profiting from group interaction and having enough time for individual contributions, the programme needs to be implemented in subgroups of 10 to 15 people (both genders represented).

Aim: The programme aims to promote psychosocial well-being and provides participants with insight into the mechanisms of building and maintaining psychological well-being from a positive psychology point of view, rather than to cure participants from any mental health disorder or problem, or serious diseases. This aim will be explicitly communicated to potential participants in order to provide them with realistic expectations as to the programme's intentions and content.

Session one: Self-knowledge

Aim and thematic background

This session is about the continual process of developing one's potential. It is about having openness to experiences in which one is continually developing and becoming, rather than achieving a fixed state wherein all problems are solved (Ryff & Singer, 2008). Research has demonstrated that having a poor understanding of self (role-identity absence) is negatively associated with well-being – a risk factor for poorer mental health (Coleman, Antonucci & Adelman, 1987; Greenfield & Marks, 2004) and physical health (Greenfield &

Marks, 2004). Greenfield and Marks (2004) underline the importance of self-understanding, as part of the process that promotes psychological well-being in later adulthood.

Self-knowledge is considered by Bandura (1986) as one of the personal capabilities to initiate and successfully perform specified tasks at designated levels with greater effort, and to persevere in the face of adversity. Although self-knowledge is used with much greater depth in therapeutic contexts, studies show that self-knowledge and efficacy hold significant power for predicting and explaining future performance in various domains (Marsh, Walker & Debus, 1991). Within the social cognitive theory of Bandura (1986), one's behaviour is constantly under reciprocal influence from cognitive (and other personal factors such as motivation) and environmental influences. Bandura calls this three-way interaction of behaviour, cognitive factors, and environmental situations the *triadic reciprocality.* Applied to an instructional design perspective, students' academic performances (behavioural factors) are influenced by how learners themselves are affected (cognitive factors) by instructional strategies (environmental factors), which in turn builds on itself in cyclical fashion.

Development of self-knowledge among students is classified under four sources of efficacy information that interact with human nature: (1) enactive attainment, (2) vicarious experience, (3) persuasory information, and (4) physiological state (Bandura, 1986). Students feel self-efficacious when they are able to picture themselves succeeding in challenging situations, which in turn determines their level of effort toward the task (Paris & Byrnes, 1989; Salomon, 1984). Bandura (1986) asserts that the state of self-knowledge greatly influences whether students believe that they have the coping strategies to successfully deal with challenging situations. One's self-knowledge may also determine the choice of engagement in a given activity and may determine the amount of effort to invest in a given academic task vis-à-vis

provided the source and requisite task can be perceived as challenging (Salomon, 1984). One's sense of self-knowledge is determined by an array of personal, social, and environmental factors. From the social-cognitive perspective, these factors which are covered in subsequent sessions can be changed not only to influence one's level of self-knowledge, but also subsequent performance on critical tasks. The personalisation of instructional context is predicted to be an effective strategy for raising the participants' percepts of efficacy through this foundational session designed strategically to promote self-knowledge of the participants.

Process of the session

In this session participants are guided to explore the challenges associated with their perceived personal identity in terms of understanding personal environment. In the session, a self-introduction exercise serves as the starting point. Each participant is requested to answer a basic fundamental question of who s/he is. The rationale of this session is that flourishing individuals need to be open to new experiences and be able to continually be and become, rather than maintaining a fixed state. Following the self-introduction is a mini-lecture on the meaning of the self-knowledge concept, and its importance towards development of one's potential. Details in the mini-lecture include the relationship between self-knowledge, psychological well-being and physical health, as they relate to today and later adulthood well-being. Participants are put into subgroups and requested to develop practical ways to grow and become who they want to be despite the presence of challenges.

Session two: Perspective and meaning

Aim and thematic background

The second session builds on self-knowledge (session one) and addresses the questions regarding participants' perspective and meaning, as it fosters a purpose in life. The specific

learning objective for this session is to give a sense of purpose and meaning in life, including having a clear comprehension of life's purpose with a sense of directedness and intentionality (being productive in midlife, and turning towards emotional integration in later life.)

Ryff and Keyes proposed that purpose in life is one of six key dimensions of psychological well-being (Ryff, 1989; Ryff & Keyes, 1995). In the context of well-being, purpose in life refers to the sense that life has meaning and direction, and that one's goals and potential are being achieved or are achievable. Greater purpose in life has been shown to be associated with several psychological outcomes, including happiness, satisfaction, and self-esteem (Ryff & Keyes, 1995). Purpose in life has been further hypothesised to be an important determinant of physical health and vitality (Ryff, 1989; Ryff, Singer & Dienberg, 2004).

The transition from university to employment is critical, since university students' statuses are affected by the decisions they make and how they spend their time. Winfield (1994) argues that many young people do not have adequate preparation, they have not been exposed to pre-employment requirements, and they do not know what options are available for them. Throughout their lives, people take charge of roles and pursue various goals through their engagement in a multitude of important life domains. However, not all of these domains are experienced in the same way – some may be fulfilling, whereas others are exhausting. Research on self-determination theory (SDT) (Deci & Ryan, 2008) has shown the importance of intrinsic motivation and basic psychological need satisfaction for well-being and other positive outcomes. Having a sense of purpose in life has been thought to be an important component of human flourishing (Ryff et al., 2004; Zika & Chamberlain, 1992).

Process of the session

The session begins with a short reflection time in which each participant is given some time to say what they learnt from the previous session. A mini-lecture on the importance and role of perspective and purpose in life becomes the next activity that builds on self-knowledge. This mini-lecture covers issues such as the value of a personal vision, the process of formulating the same, together with a mission and the end result. The latter is followed by a small discussion group to share their dreams for the future and discuss practical ways that they think may help them to reach those dreams. This guided group discussion focuses on participants sharing what they foresee as their identity in their later adulthood, what the meaningful things in their lives are, what goals they have, and how goals and meaning can be aligned in behaviour.

Session three: Hope

Aim and thematic background

The overall purpose of this session is for each participant to develop a better understanding of what the concept "hope" refers to. The learning objective for this session is to build an internal locus of control; a belief that one is capable of exercising a degree of control over his/her environment; it links to goals, agency and pathways to reach those goals.

Hope has been defined by Snyder (2002) as a learned thinking pattern, a set of beliefs and thoughts. Snyder, Irving and Anderson (1991) further defined hope as, a "cognitive set that is based on reciprocally derived sense of successful agency (goal-directed determination) and pathways (planning to meet goals)" (p. 572). Snyder, Fieldman, Shorey and Rand (2002) characterise hope not as a passive emotional phenomenon that occurs only in the dark moments,

but as a process through which individuals actively pursue their goals. Lopez, Rose, Robinson, Marques and Pais-Ribeiro (2009) describe hope as a human strength manifested in capacities to: (i) clearly conceptualise goals (goals thinking); (ii) develop the specific strategies to reach those goals (pathway thinking); and (iii) initiate and sustain the motivation for using those strategies (agency thinking).

Building hope in positive psychology links to several theories, such as the goal theory (Covington, 2000; Snyder, 2002), optimism (Scheier & Carver, 1985), self-efficacy (Bandura, 1982), and problem-solving (Heppner & Petersen, 1982). This session considers these facets linked with hope.

According to hope theory, a goal can be anything that an individual desires to experience, create, get, do, or become (Lopez et al., 2009; Snyder et al., 2002). Goals may vary in terms of having very low to very high perceived probabilities of attainment. High-hope individuals – as compared to low-hope individuals – are more likely to develop alternative pathways, especially when goals are important and when obstacles appear (Lopez et al., 2009). Thus, high-hope, more than low-hope people exhort themselves to "take the next step" or to take a long-range goal and separate it into steps, hence them standing a better chance of good mental health in life.

Hope theory states that people possessing high levels of hope are more able to identify viable paths to reach their goals through a better formulation of their steps to follow in their pathways. Accumulating evidence suggests that hope is related to life satisfaction and well-being. Lopez et al. (2009) reported that hope scores are negatively and significantly correlated with measures of internalising and externalising behaviour problems, indicators of psychological distress, and school maladjustment. On the other hand, hope is reported to be significantly and positively correlated with global life satisfaction and mental health.

The foundation of imparting hope rests on helping individuals set their goals. This session helps each participant produce a list of goals, then rank the importance of these goals, and in the process s/he acquires important skills about how to prioritise goals.

Process of the session

A mini-lecture and guided group discussion are the useful methods for this session to attain the aim of helping participants to build internal locus of control and the belief that they are capable of exercising a degree of control over their environments, as well as being able to develop and prioritise their life goals,. This session's mini-lecture starts by introducing participants to set personalised goals, then to break these goals into manageable steps. Issues covered in the mini-lecture are goal development and orientation, and handling challenges in goal pursuit. Furthermore, the guided group discussion of this session is informed by Snyder's hope enhancement strategies, where participants are encouraged to share stories about challenges in their own lives (or in the lives of family members or friends) and to explore how these challenges show optimism. After the discussion, participants are invited to review their life goals, rank them in order of priority, and consider various pathways to reach those goals.

Sessions four and five: relationships

Aim and thematic background

These sessions focus on the idea that good relationships are central to both physical and mental well-being, as supported by research e.g. (Walsh, 2011). These sessions are about working with people as relationships develop, to put in place preventative measures to build in families today and in future. Recent research has highlighted positive effects of mentoring and having positive relationships, the most significant and well-documented of which are

improvements in youths' grades, school attendance and family relationships among others (Johnson, 1998; LoSciuto, Rajala, Townsend & Taylor, 1996; Tierney & Grossman, 1995; Walsh, 2011). At the heart of these effects is the development of a strong relationship between peers and other relationships, which are more likely to make positive changes in people's lives (Grossman & Johnson, 1999).

Boivin (2005) emphasises that peer relationships are of great importance in one's development, as they offer unique opportunities of getting acquainted with social norms and processes involved in interpersonal relationships and for learning new social skills. There is evidence that social contribution, i.e. giving to others or doing things for others, is an important contributor to our general well-being. Keyes (1998) suggests that social well-being needs to be thought of in terms of five components: social coherence, social integration, social acceptance, social contribution, and social actualisation.

In line with Ryff and Keyes' (1998) idea that people do seek to develop and maintain warm trusting relationships, (Walsh, 2011) emphasises the same, saying that human beings are interdependent creatures hardwired for empathy and relationship. Walsh (2011) further suggests that good relationships are associated with enhanced happiness, cognitive capacity and even wisdom.

Process of the session

With the rationale that happy people are attentive and responsive to the needs, wants and hopes of those they love and value, these two sessions aim to enable participants to appreciate the importance of having and maintaining friends. Session four looks at the importance of relationship with a focus on effective communication and cultural sensitivity. For the development of the latter a mini-lecture is offered to participants covering listening skills and

strengths of communication within a group, the importance of feedback and reflection on communication received. Session five enhances participants' understanding of the importance of keeping friends by presenting a mini-lecture on avoidance of coercion in building a better sense of trust in a relationship. Issues covered here are seeing each other's point of view, responding to criticism with empathy, and when to compromise. The guided group discussions follow each mini-lecture as a method for internalisation. The focus of the discussion is firstly on effective communication, cultural sensitivity, and then on voidance of coercion in building a better sense of trust in a relationship.

Sessions six and seven: Physical exercise

Aim and theoretical backdrop

There is growing evidence demonstrating that exercise can be effective in improving the mental well-being of the general public, largely through improved mood and self-perception. Together these add to the already convincing literature that exercise reduces morbidity and mortality from coronary heart disease, diabetes, obesity and some cancers (Fox, 1999). These sessions aim at educating participants that exercise can be useful in self-treating and preventing depressive illnesses, and can be used as a means of reducing stress and anxiety on a daily basis. The rise of technology is blamed for the incidence of inactivity among developed countries in the sense that progressively technology removes exercise from lifestyles where inactivity as reported to be at around 40% of the middle-aged and elderly in the UK (Sports Council, 1992). Powell and Blair (1994) state that inactivity of the population is not only a public health burden but is also expensive. Powel and Blair (1994) recommend activity promotion as a cost-effective intervention to inactivity. Participants of the programme need to be equipped with skills to foster

higher levels of activity focusing on enhancing participants' involvement in physical exercise that warrants better mental health.

In these sessions physical activity is viewed from three different perspectives regarding its direct contribution to boosting mental well-being: (i) prevention of mental illness and disorders; (ii) improvement of mental and physical well-being of those with mental illness; and (iii) improvement of mental well-being of the general population.

Regular exercise appears to offer a vehicle for more deep-seated change through improvements in the way one views his/her physical self and this has the potential to generalise to higher self-esteem and identity change.

Process of the session

Session six is about laying the foundation for participants to understand and appreciate the role and importance of physical exercises, as they relate to mental health and well-being. Covered in this session is the need for regular physical exercise, its benefits and outcome. This session is concluded by requesting participants to set aside reasonable time that they would be willing to spend on daily physical exercise, as they work towards better health. Session seven focuses on the practical part of the previous session by offering participants a chance to start doing physical exercises.

The assistance of a sport instructor is sought for both sessions for demonstration and guided practice of basic useful physical exercises for health promotion. By the use of a gym DVD and overhead projector, participants can practice some of the exercises.

Session eight: Coping

Aim and thematic background

This session focuses on the development of efficient coping. It is about efficiently coping with life's challenges, as a significant aspect for psychological well-being (Wissing & Van Eeden, 2002). Research suggests that coping has a significant influence on mental health (Taylor & Standton, 2007). Pisanti (2010**)** reports that high level of coping self-efficacy is likely to lead to an adaptive approach which helps people perceive tasks as challenging and as positive experiences. The ability to perform diverse coping activities could be more valuable as a predictor of mental health state.

Coping can be defined as an active process concerned with a person's attempt to reduce the intensity or frequency of a stimulus that is perceived as threatening (Chesney et al., 2006; Laureano, 2008) suggest two important functions of coping i.e. regulation of emotional responses to stressful events (emotion-focused coping), and the capacity of handling the problem that is causing the stressful event (problem-focused coping). This builds efficient coping links to Bandura's (1997) concept of coping self-efficacy. Coping self-efficacy beliefs refer to an individual's beliefs about his/her ability to cope with external stressors. Lazarus and Folkman's (1984) transactional theory of coping proposes that coping is about an individual's decision to engage in coping as a way of cognitive appraisal.

Coping self-efficacy refers to one's perceived capability to manage personal functioning and to mobilise the motivation, cognitive resources, and courses of action needed to exercise control over one's life (Benight & Bandura, 2004; Ozer & Bandura, 1990). Coping self-efficacy beliefs enable enactment of successful coping responses, resulting in less distress. Coping self-efficacy is the extent to which one feels capable of making effective decisions about feelings, behaviour, and the future (Cieslak, Benight & Lehman, 2008). Self-efficacy beliefs empower individuals by fostering a sense of control and belief that they are proactive agents who can

shape their life circumstances. These empowering beliefs result in less distress (Bandura, 1997). Indeed, individuals who believe they are efficacious in confronting particular threatening situations have reduced autonomic arousal and stress reactions (Bandura, Taylor, Williams, Mefford & Barchas, 1985).

Thompson, et al. (2010) indicate that people have the ability to respond to stressful experiences in both adaptive and maladaptive ways. Where adaptive coping refers to fitness of the individual in controlling the stressful situation and the choice of coping strategies (i.e. problem-focused versus emotion-focused coping) (Park, Folkman & Bostrom, 2001), maladaptive coping is the response of an individual vis-à-vis uncontrollable stressors with problem-focused coping and emotion-focused coping strategies (e.g. coping that fail to regulate or manage the distress) (Strentz & Auebach, 1988).

Process of the session

A mini-lecture in this session capitalises on the two types of coping (i) problem-focused coping, dealing with goal-setting and time-management skills development; and (ii) emotional-focused coping, dealing with emotional responses evoked by stressors.

Session eight is also the session covering consolidation of all things covered in the entire programme. After the mini-lecture, the facilitator gives each participant a chance to share lessons learnt and ways such a programme would be improved. The facilitator encourages participants to keep what was learnt as a lifestyle practice for better health. At this point, participants are to be prepared for a possible follow-up session and evaluation of the effectiveness of the programme.

Conclusion and Recommendations

The focus of the present study was on developing a programme to enhance the psychological well-being among university students. Enhancement of psychological well-being

is important and possible over the whole life span. However, from the literature it is clear that children, adolescents and older people are viewed as the most vulnerable groups, and especially important target groups for preventative positive interventions (Wissing, 2006).

What is required by all concerned with enhancing quality and standards in schools, therefore, is a better understanding of the factors that enable the majority of participants to function optimally and sustain their motivation, commitment and effectiveness; and to build and evaluate programmes that maintain and promote flourishing in participants, and adolescents and students in particular. It may also be fruitful to examine this intervention in more groups of participants in order to build an evidence base for practice. It may further be suitable to compare the outcomes of various interventions based on different theoretical assumptions and enhancement strategies.

References

Bandura, A. (1982). Self-efficacy mechanisms in human agency. *American Psychologist, 37,* 122-147.

Bandura, A. (1986). *Social foundations of thoughts and action*. Englewood Cliffs, NJ, USA: Prentice Hall.

Bandura, A. (1997). *Self-efficacy*: *The exercise of control*. New York, NY, USA: Freeman.

Bandura, A., Taylor, C. B., Williams, S. L., Mefford, I. N., & Barchas, J. D. (1985). Catecholamine secretion as a function of perceived coping self-efficacy. *Journal of Consulting and Clinical Psychology, 53,* 406-414.

Benight, C. C., & Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: The role of perceived self-efficacy. *Behaviour Research and Therapy, 42,* 1129-1148.

Boivin, M. (2005). The origin of peer relationship difficulties in early childhood and their impact on children's psychosocial adjustment and development. In: R. E. Tremblay, R. G. Barr, & R. D. Peters,(eds.), *Encyclopaedia on Early Childhood Development* [online]. *Montreal, Quebec: Centre of Excellence for Early Childhood Development;* 2005:1-7. Retrieved from: http://www.childencyclopedia.com/documents/BoivinANGxp.pdf.

Buwalda, F. M., & Bouman, T. K. (2008). A psychoeducational approach to hypochondriasis: Background, content, and practice guidelines. *Cognitive and Behavioural Practice, 15,* 231-243.

Chambless, D. L., & Hollon, S. D. (1998). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology, 66,* 7-18.

Chesney, M. A., Neilands, T. B., Chambers, D. B., Taylor, J. M., & Folkman, S. (2006). A validity and reliability study of the Coping Self-Efficacy Scale. *British Journal of Psychology, 11,* 421-437.

Cieslak, R., Benight, C., & Lehman, V. (2008). Coping self-efficacy mediates the effects of negative cognitions on posttraumatic distress. *Behavior Research and Therapy, 46*(7), 788-798. doi: 10.1016/j.brat.2008.03.007.

Cohn, M. A., & Fredrickson, B. L. (2010). In search of durable positive psychology interventions: Predictors and consequences of long-term positive behaviour change. *The Journal of Positive Psychology, 5*(5), 355-366.

Coleman, L. M., Antonucci, T. C., & Adelman, P. K. (1987). Role involvement, gender, and well-being. In F. J. Crosby (Ed.), *Spouse, parent, worker: On gender and multiple roles* (pp. 138-153). New Haven, USA: Yale University Press.

Collishaw, S., Pickles, A., Messer, J., Rutter, M., Shearer, C., & Maughan, B. (2007). Resilience to adult psychopathology following childhood maltreatment: evidence from a community sample. *Child Abuse Neglect, 31,* 211-229.

Connor, K.M., & Davidson, J.R.T. (2003). Development of a New Resilience Scale: The Connor–Davidson Resilience Scale (CDRISC). *Depression and Anxiety, 18,* 76-82.

Cooreman, M. P., Leroux-Roels, G., & Paulij, W. P. (2001). Vaccine- and hepatitis B immune globulin-induced escape mutations of hepatitis B virus surface antigen. *Journal of Biomedical Science, 8,* 237-247.

Covington, M. V. (2000). Goal theory, motivation, and school achievement: An integrative review. *Annual Review of Psychology, 51,* 171-200.

Daining, C., & DePanfilis, D. (2007). Resilience of youth in transition from out-of-home care to adulthood. *Children and Youth Services Review, 29,* 1158-1178.

Davydov, D. M., Stewart R., Ritchie, K., & Chaudieu, I. (2010). Resilience and mental health. *Clinical Psychology Review, 30,* 479-495.

Deci, E. L., & Ryan, R. M. (2008). The "what" and "why" of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry, 11,* 227-268.

Dubow, E. F., Tisak, J., & Causey, D., Hryshko, A., Reid, G. J. (1991). A two-year longitudinal study of stressful life events, social support, and social problem-solving skills: Contributions to children's behavioural and academic adjustment. *Child Development, 62,* 583-599.

Fledderus, M., Bohlmeijer, E. T., Smit, F., & Westerhof, G. J. (2010). Mental health promotion as a new goal in public mental health care: A randomized controlled trial of an intervention enhancing psychological flexibility. *American Journal of Health, 100,* 2372-2378.

Fox, K. R. (1999). The influence of physical activity on mental well-being. *Public Health Nutrition, 2(*3a*),* 411-418.

Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science, 13,* 172-175.

Greenfield, E. A., & Marks, N. F. (2004). Formal Volunteering as a Protective Factor of Older Adults' Psychological Well-Being. *The Journal of Gerontology, 59* (5), S258-S264.

Grossman, J. B., & Johnson, A. W. (1999). Assessing the effectiveness of mentoring programmes, in *Contemporary Issues in Mentoring*. Philadelphia, USA: Public/Private Ventures.

Haraldsson, K. S., Lindgren, E. C. M., Fridlund, B. G. A., Baigi, A. M. A. E., Lydell, M. C., & Marklund, B. R. G. (2008). Evaluation of a school-based health promotion programme for adolescents aged 12–15 years with focus on well-being related to stress. *Public Health, 122,* 25-33.

Heppner, P. P., & Petersen, C. H. (1982). The development and implications of a personal problem-solving inventory. *Journal of Counselling Psychology, 29,* 66-75.

Johnson, A. W. (1998). *An evaluation of the long-term impacts of the Sponsor-A-Scholar Programme on student performance: Final report to the Commonwealth Fund*. Princeton, New Jersey, USA: Mathematica Policy Research, Inc.

Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing. *American Psychologist, 62(2),* 95-108.

Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *American Journal of Orthopsychiatry, 76,* 395-402.

Keyes, C.L.M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73,* 539-548.

Keyes, C. L. M. (1998). Social well-being. *Social Psychology Quarterly, 61,* 121-140.

Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Research, 43,* 207-222.

Keyes, C.L.M., & Lopez, S. J. (2002). Toward a science of mental health: Positive directions in diagnosis and treatment. In C.R Snyder & S.J. Lopez (Eds.), *The handbook of positive psychology* (pp. 45-59). New York: Oxford University Press.

Keyes, C. L. M., Ryff, C. M., & Shmotkin, D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology, 82* (6), 1007-1022.

Kim, H. W., Greenberg, J. S., Seltzer, M. M., & Krauss, M. W. (2003). The role of coping in maintaining the psychological well-being of mothers of adults with intellectual disability and mental illness. *Journal of Intellectual Disability Research, 47*(4/5), 313-327.

Konu, A. I., & Rimpelä, M. K. (2002). Well-being in schools: a conceptual model. *Health Promot Int, 17*, 79-87.

Krawczynski, M., & Olszewski, H. (2000). Psychological well-being associated with a physical activity programme for persons over 60 years old. *Psychology of Sports and Exercise, 1*, 57-63.

Laureano, C. (2005). The evaluation of a premarital enrichment programme for second marriages. (Unpublished master's thesis). North-West University, Potchefstroom campus: South Africa.

Laureano, C.M.D., (2008). *Development of an experiential learning programme aimed at facilitating coping strategies and well-being of university rugby players.* (Unpublished doctoral thesis). North-West University, Potchefstroom campus: South Africa.

Lazarus, R. S., & Folkman, S. (1984).*Stress, appraisal, and coping.* New York, USA: Springer.

Littlefield, L., & Hemphill, A. S. (2001). Evaluation of a short-term group therapy programme for children with behaviour problems and their parents. *Behaviour Research and Therapy, 39*, 823-841.

Lopez, S. J., Rose, S. J., Robinson, C., Marques, S.C., & Pais-Ribeiro, J. (2007). Measuring and promoting hope in school children. In J. F Michael (Ed.), *Handbook of positive psychology in schools* (pp. 37-49).

LoSciuto, L., Rajala, A. K., Townsend, T. N., & Taylor, A. S. (1996). An outcome evaluation of Across Ages: An intergenerational mentoring approach to drug prevention. *Journal of Adolescent Research, 11,* 1116-1129.

Lukens, E., & McFarlane, W. (2004). Psychoeducation as evidence-based practice: Considerations for practice, research and policy. *Journal of Brief Practice & Crisis Intervention, 4*, 205-225.

Luster, T., Bates, L., & Johnson, D. J. (2006). Risk and resilience. In F. A. Villarruel & T. Luster (Eds.), *The Crisis in Youth Mental Health: Disorders in Adolescence Volume Two (pp.* 28-52). Westport, Connecticut: Praeger Publishers.

Magyary, D. (2002). Positive mental health: A turn of the century perspective. *Issues in Mental Health Nursing, 23*(4), 331-349.

Marsh, H., Walker, R., & Debus, R. (1991). Subject-specific components of academic self-concept and self-efficacy. *Contemporary Educational Psychology, 16,* 331-345.

McAllister, M., & McKinnon, J. (2009). The importance of teaching and learning resilience in the health disciplines: A critical review of the literature. *Nurse Education Today, 29,* 371-379.

Morris, J. (1994). Exercise in the prevention of coronary heart disease: Today's best buy in public health. *Medicine and Science in Sports & Exercise, 26,* 807-14.

Osterling, K. L., & Hines, M. A. (2006). Mentoring adolescent foster youth. *Child and Family social Work, 11,* 242-253.

Ozer, E. M., & Bandura, A. (1990). Mechanisms governing empowerment effects: A self-efficacy analysis. *Journal of Personality and Social Psychology*, *58*, 472-486.

Paris, S. G., & Byrnes, J. P. (1989). The construct approach to self-regulation and learning in the classroom. In B. Zimmerman & D. Schunk (Eds.), *Self-regulated learning and academic achievement: Theory, research and practice* (pp. 169-200). New York, USA: Springer-Verlag.

Park, C. L., Folkman, S., & Bostrom, A. (2001). Appraisals of controllability and coping in caregivers and HIV+ men: Testing the goodness-of-fit hypothesis. *Journal of Consulting and Clinical Psychology*, *69*(3), 481-488.

Pisanti, R. (2010). Coping self-efficacy and psychological distress: Results from an Italian study on nurses. *The European Health Psycholigist, 14*(1), 11-14.

Powell, K. E., & Blair, S. (1994). The public health burdens of sedentary living habits: Theoretical but realistic estimates. *Medicine and Science in Sports and Exercise, 26*, 851-856.

Richardson, G. E., Nieger, B. L., Jensen, S., & Kumpfer, K. L. (1990). The resilience model. *Health Education, 21*(6), 33-36.

Rose, T. Y. (2010). *Social integration and mental health promotion: A study of black adolescents*. (Unpublished doctoral dissertation) The Catholic University of America, Washington D.C.

Rothermund, K., & Brandtstädter, J. (2003). Age stereotypes, self- views, and well-being in later life: Evaluating rival assumptions. *International Journal of Behavioural Development, 27*, 549-554.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57,* 1069-1081.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 64* (4), 719-729.

Ryff, C. D., Singer, B. H., & Dienberg, L. G. (2004). Positive health: connecting well-being with biology. *Philosophical Transactions of the Royal Society of London, 359* (1449), 1384-1394.

Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies, 9,* 13-39.

Salomon, G. (1984). Television is "easy" and print is "tough": The differential investments of mental effort in learning as a function of perceptions and attribution. *Journal of Educational Psychology, 76,* 647-658.

Scheier, M. F., & Carver, C. S. (1985). Optimism, coping and health: Assessment and implications of generalized outcome experiences. *Health Psychology, 4,* 219-249.

Smith, S., Yeomans, D., Bushe, C. J. P., Erickson, C., Harrison, T., Holmes, R., Mynors-Wallis, L., Oatway, H., & Sullivan, G. (2007). A well-being programme in severe mental illness. Reducing risk for physical ill-health: A post-programme service evaluation at 2 years. *European Psychiatry, 22,* 413-418.

Snyder, C. R. (2002). Hope theory: Rainbow in the mind. *Psychological Inquiry, 13(4),* 249-275.

Snyder, C. R., Irving, L., & Anderson, J. R. (1991). Hope and health: Measuring the will and the ways. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of Social and Clinical Psychology*: *The Health Perspective* (pp. 285-305). Elmsoford, New York: Pergamon.

Snyder, C. R., Fieldman, D. R., Shorey, H. S., & Rand, K. L. (2002). Hopeful choices: A school Counsellor's guide to Hope theory. *Professional School Counselling, 5(5),* 298-310.

Sports Council/HEA (1992). *Allied Dunbar National Fitness Survey: Main findings*. London, England: Sports Council, HEA.

Stewart, M., Reid, G., & Mangham, C. (1997). Fostering Children's Resilience. *Journal of Paediatric Nursing, 12 (1),* 21-31.

Strentz, T., & Auerbach, S. M. (1988). Adjustment to the stress of simulated captivity: Effects of emotion-focused versus problem-focused preparation on hostages differing in locus of control. *Journal of Personality and Social Psychology*, *55*(4):652-660.

Taylor, S. E., & Stanton, A. L. (2007). Coping resources, coping processes, and mental health. *Annual Review of Clinical Psychology, 3*, 377-401.

Tierney, J. P., & Grossman, J. B. (1995). *Making a difference: An impact study of Big Brothers/Big Sisters*. Philadelphia, USA: Public/Private Ventures.

Thompson, R. J., Mata, J., Jaeggi, S., Buschkuehl, M., Jonides, J., & Gotlib, I. H. (2010). Maladaptive responses to stress, adaptive coping, and depressive symptoms: Variations across age and depressive state. *Behaviour Research and Therapy*, *48*, 459-466.

Van Schalkwyk, I. (2009). *Flourishing in a group of South African adolescents*. (Unpublished doctoral thesis). North-West University, Potchefstroom, South Africa

Van Velden, D. P. (2005). Positive lifestyle interventions: The key to whole-person wellness. *CME, 23*(6), 294-298.

Walsh, R. (2011, January 17). Lifestyle and Mental Health. *American Psychologist*. Advance online publication. doi: 10.1037/a0021769.

Widom, C. S., Czaja, J., & DuMont, K. A. (2007). Predictors of resilience in abused and neglected children grown-up: The role of individual and neighbourhood characteristics. *Child Abuse & Neglect, 31*, 255-274.

Winfield, L. F. (1994). *Developing resilience in urban youth.* Urban Monograph Series. Oak Brook, IL: North Central Regional Educational Laboratory.

Wissing, J. A. B, (2006). *Psychological well-being in cultural context: Measurement, patterns and relevance for practice*. (Unpublished doctoral thesis)*:* North-West University. Potchefstroom, South Africa.

Wissing, M. P., & Van Eeden, C. (2002). Empirical clarification of the nature of psychological well-being. *South African Journal of Psychology, 32,* 32-44.

World Health Organization. (1986). *Ottawa Charter for Health Promotion.* Copenhagen, Denmark: World Health Organization.

Wright, S., Courtney, U., & Crowther, D. (2002). A quantitative and qualitative pilot study of the perceived benefits of autogenic training for a group of people with cancer. *European Journal of Cancer Care, 11*(2), 122-130.

Yazdanbakhsh, M., Kremsner, P. G., & van Ree, R. (2002). Allergy, parasites, and the hygiene hypothesis. *Science, 296*, 490-494.

Zika, S., & Chamberlain, K. (1992). On the relationship between meaning in life and psychological well-being. *British Journal of Psychology, 83*(1), 133-145.

SECTION 4: ARTICLE 3

Evaluating a psychosocial well-being programme for university students.

To be submitted to the

Journal of Psychology in Africa

4.1. Instructions to Authors: *Journal of Psychology in Africa*

INSTRUCTIONS TO AUTHORS

The **Journal of Psychology in Africa** includes original articles, review articles, book reviews, commentaries, special issues, case analyses, reports, special announcements, etc. Contributions should attempt a synthesis of local and universal methodologies and applications. Specifically, manuscripts should:

1) Combine quantitative and qualitative data, 2) Take a systematic qualitative or ethnographic approach, 3) Use an original and creative methodological approach, 4) Address an important but overlooked topic, and 5) Present new theoretical or conceptual ideas.

Also, all papers must show an awareness of the cultural context of the research questions asked, the measures used, and the results obtained. Finally the papers should be practical, based on local experience, and applicable to crucial development efforts in key areas of psychology.

Editorial policy

Submission of a manuscript implies that the material has not previously been published, nor is it being considered for publication elsewhere. Submission of a manuscript will be taken to imply transfer of copyright of the material to the publishers, Elliott & Fitzpatrick. Contributions are accepted on the understanding that the authors have the authority for publication. Material accepted for publication in this journal may not be reprinted or published, Elliott & Fitzpatrick. The Journal has a policy of anonymous peer review. Papers will be scrutinised and commented on by at least two independent expert referees or consulting editors as well as by an editor. The Editor reserves the right to revise the final draft of the manuscript to conform to editorial requirements.

Manuscripts

Manuscripts should be submitted in English, French, Portuguese or Spanish. They should be typewritten and double-spaced, with wide margins, using one side of the page only. Manuscripts should be submitted to the Editor-in-Chief, Journal of Psychology in Africa, Professor Elias Mpofu, PhD., CRC, Associate Professor, Faculty of Health Sciences, University of Sydney, Cumberland Campus, East Street, PO Box 170 Lidcombe NSW 1825, Australia, email: e.mpofu@usyd.edu.au. We encourage authors to submit manuscripts via e-mail, in MS Word, but we also require two hard copies of any e-mail submission. Before submitting a manuscript, authors should peruse and consult a recent issue of the *Journal of Psychology in Africa* for general layout and style. Manuscripts should conform to the publication guidelines of the latest edition of the American Psychological Association (APA) publication manual of instructions for authors.

Manuscript format

All pages must be numbered consecutively, including those containing the references, tables and figures. The typescript of manuscripts should be arranged as follows:

Title: This should be brief, sufficiently informative for retrieval by automatic searching techniques and should contain important key-words (preferably <10 words).

Author(s) and Address(es) of author(s): The corresponding author must be indicated. The author's respective addresses where the work was done must be indicated. An e-mail address, telephone number and fax number for the corresponding author must be provided.

Abstract: Articles and abstracts must be in English. Submission of abstracts translated to French, Portuguese and/or Spanish is encouraged. For data-based contributions, the abstract should be structured as follows: *Objective*—the primary purpose of the paper, *Method* – data source, subjects, design, measurements, data analysis, *Results* – key findings, and *Conclusions* – implications, future directions. For all other contributions (except editorials, letters and book reviews) the abstract must be a concise statement of the content of the paper. Abstracts must not exceed 120 words. It should summarize the information presented in the paper but should not include references.

Referencing: Referencing style should follow APA manual of instructions for authors.

References in text: References in running text should be quoted as follows: (Louw & Mkize, 2004), or (Louw, 2004), or Louw (2000, 2004a, 2004b), or (Louw & Mkize, 2004), or (Mkize, 2003; Louw & Naidoo, 2004). All surnames should be cited the first time the reference occurs, e.g., Louw, Mkize, and Naidoo (2004) or (Louw, Mkize, & Naidoo, 2004). Subsequent citations should use **et al.**, e.g. Louw et al. (2004) or (Louw et al., 2004). 'Unpublished observations' and 'personal communications' may be cited in the text, but not in the reference list. Manuscripts accepted but not yet published can be included as references followed by 'in press'.

Reference list: Full references should be given at the end of the article in alphabetical order, using double spacing. References to journals should include the author's surnames and initials, the full title of the paper, the full name of the journal, the year of publication, the volume number, and inclusive page numbers. Titles of journals must not be abbreviated. References to books should include the authors' surnames and initials, the year of publication, the full title of the book, the place of publication, and the publisher's name. References should be cited as per the examples below:

Appoh, L. (1995). *The effects of parental attitudes, beliefs and values on the nutritional status of their children in two communities in Ghana* (Unpublished master's thesis). University of Trondheim, Norway.

Peltzer, K. (2001). Factors at follow-up associated with adherence with directly observed therapy (DOT) for tuberculosis patients in South Africa. *Journal of Psychology in Africa, 11,* 165-185.

Sternberg, R. J. (2001, June). *Cultural approaches to intellectual and social competencies*. Paper presented at the Annual Convention of the American Psychological Society, Toronto, Canada.

Cook, D. A., & Wiley, C. Y. (2000). Psychotherapy with members of the African American churches and spiritual traditions. In P. S. Richards & A. E. Bergin (Ed.), *Handbook of psychotherapy and religiosity diversity* (pp. 369-396). Washington, DC: American Psychological Association.

Tables: Tables should be either included at the end of the manuscript or as a separate file. Indicate the correct placement by indicating the insertion point in brackets, e.g., <Insert Table 1 approximately here>. Tables should be provided as either tab-delimited text or as a MS Word table (One item/cell). Font for tables should be Helvetica text to maintain consistency.

Figures/Graphs/Photos: Figures, graphs and photos should be provided in graphic format (either JPG or TIFF) with a separate file for each figure, graph or photo. Indicate the correct placement by indicating the insertion point in brackets, e.g., <Insert Figure 1 approximately here>. Provide the title for the item and any notes that should appear at bottom of item in the manuscript text. Items should be cropped to avoid the appearance of superfluous white space around items. Text on figures and graphs should be Helvetica to maintain consistency. Figures must not repeat data presented in the text or tables. Figures should be planned to appear to a maximum final width of either 80 or 175 mm. (3.5 or 7.0"). Complicated symbols or patterns must be avoided. Graphs and histograms should preferably be two-dimensional and scale marks provided. All lines should be black but not too heavy or thick (including boxes). Colour only in photos or colour sensitive graphic illustrations. Extra charges will be levied for colour printing.

Text: 1. Do not align text using spaces or tabs in references. Use on of the following: (a) use CTRL-T in Word 2007 to generate a hanging indent or (b) MS Word allows author to define a style (e.g., reference) that will create the correct formatting. 2. Per APA guidelines, only one space should follow any punctuation. 3. Do not insert spaces at the beginning or end of paragraphs. 4. Do not use colour in text.

Lead authors will receive a complimentary issue of the journal issue in which their article appears. Reprints in PDF format can be purchased from the publishers, Elliott & Fitzpatrick. The Journal does not place restriction on manuscript length but attention is drawn to the fact that a levy is charged towards publication costs which is revised from time to time to match costs of production. Instructions for remitting the publication levy are provided to lead or corresponding authors by the Editorial Assistant of the journal.

Instructions to authors are available at:

http://www.elliottfitzpatrick.com

Evaluating the effect of a psychosocial well-being programme for students at a Tanzanian university

J. Rugira, A. W. Nienaber, M. P. Wissing

Faculty of Health Sciences

School of Psychosocial Behavioural Sciences, North-West University: Potchefstroom Campus, Potchefstroom.

Please address correspondence to J Rugira c/o dr. A. W. Nienaber, School for Psychosocial Behavioural Sciences, North-West University: Potchefstroom Campus, Private Bag X6001, Potchefstroom, 2520, South Africa.

E-mail Alida.Nienaber@nwu.ac.za

E-mail: jnrugira@yahoo.fr

Abstract

This study investigated the efficacy of a new psychosocial well-being promoting programme for university students in Tanzania. Participants were adult university students (*N* = 82; 42 married and 40 single; 46 female and 36 male) of 19 to 40 years of age with a mean age of 29.5. Four standardised scales i.e., the Mental Health Continuum-Short Form (MHC-SF), the Coping Self-Efficacy Scale, the Trait Hope Scale, and The Patient Health Questionnaire: Depression Symptoms (PHQ-9), were administered before and after the programme to determine the effect thereof. Quantitative findings indicated that the programme had a significant positive effect on problem-focused coping, social well-being and hope. Married participants were more effective in suppression of unpleasant emotions in the experimental group than in the control group. Gender-based differences were noted on emotional well-being scores, where an increase in the experimental group is noted with females on areas such as problem-focused coping, suppression of unpleasant emotions, total self-efficacy, and social well-being. The programme was specifically effective on suppressing unpleasant emotions to married participants in the experimental group.

*Keywords***:** Tanzania, well-being, university students, positive psychology, promotion, programme evaluation.

Evaluating the effect of a psychosocial well-being programme for students at a Tanzanian university

There is increasing focus on things such as positive development, quality of life, happiness, social functioning regarding the lives of children, adolescents and adults (Caffo, Belaise & Foresi, 2008; Kelley, 2003). Seligman and Csikszentmihalyi (2000) are convinced that schools should not be conceived only as institutions for developing learning and educational processes, but also as "positive institutions" for facilitating human and social development. One of the ideal settings for the promotion of interpersonal relationships and optimal functioning among adults would then be to start at university. This appears to be particularly important in view of increasing student enrolments at universities, where behavioural and learning difficulties are compounded by poverty, and other social challenges (Rugira, article 1). In trying to facilitate schools/universities into becoming "*positive institutions"*, relevant integrative programmes/interventions are necessary and need to be contextual to address the needs of the particular community and educational level.

This study acknowledges that there are some well-being interventions that have been proposed and validated in a school setting such as the Paths (Promoting Alternative Thinking Strategies) curriculum (Kam, Greenberg & Walls, 2003) for the promotion of social competence and the prevention of aggressive behaviour to a group of inner-city public schools that had very low academic performance and high rates of poverty; the Gatehouse project (Patton, Bond, Butler & Glover, 2003), for increasing the attachment and the sense of belonging to a school in students; the Bounce Back Programme (Mc Grath & Noble, 2003) and the Bright Ideas (Brandon & Cunningham, 1999), for promotion of resilience and coping skills for children in the age group 10 to 13 years within the school setting. Bright Ideas was directly modelled on the cognitive

attribution component of the Penn Prevention Programme (PPP) (Jaycox et al., 1994); the Penn Resiliency Programme (Gilham et al., 2007; Gilham, Reivich, Jaycoz & Seligman, 1995) for promotion optimism and preventing depression in middle school children in the United States; the Stress Inoculation Training (Meichenbaum & Deffenbacher, 1998) or the Coping Cat (Kendal, 1994), for preventing anxiety in children and adolescents. Ruini et al. (2006) report a school intervention that consisted of four sessions to be performed directly in the class, and involved psycho-education, cognitive-behavioural techniques, and Ryff's model of psychological well-being. The results of this study showed that this new school programme was associated with decreased anxiety and increased well-being in the children. However, none of these programmes specifically address the issue of psychological well-being in the young adult population, nor consider the university student population. A specific programme for this population group was designed (Rugira, article 2), not only to address and promote skills to manage psychological disturbances and social adjustment for the present, but to develop and buffer them to flourish even during their later adulthood. Focusing on this particular population group is based on research finding suggesting that flourishing may decline with age (Snowden, Dhingra, Keyes, & Anderson, 2010). Van Schalkwyk (2009) argues that consideration needs to be taken in developing the highest possible levels of well-being to teenagers and ultimately to adults, which is the focus of this study.

The aim of the study is to test the efficacy of the above mentioned psychosocial well-being programme for university students, which has the purpose of promoting psychological well-being and optimal human functioning (Rugira, article 2). The newly developed programme builds on Ryff and Keyes' (1995) eudaimonic perspective. Keyes, Ryff and Shmotkin (2002), indicated that psychological well-being (PWB) is greatly informed by the formulations of human

development and existential challenges of life with interest in growth and development. The six dimensions of Ryff's theory (Ryff, 1989) are (i) self-acceptance, people attempt to feel good about themselves even while they are aware of their own limitations; (ii) positive relations with others, seeking to develop and maintain warm and trusting interpersonal relationship; (iii) environmental mastery, shape their environment so as to meet personal needs and desires; (iv) autonomy, sustaining individuality with a larger context, people also seek a sense of self-determination and personal growth; (v) purpose in life, a vital endeavour to find meaning in one's efforts and challenges; and (vi) personal growth, making the most of one's talents and capabilities is the essence of this. In addition to these dimensions, Keyes (2009) presents social well-being facets in his Mental Health Continuum, namely (i) social coherence: focusing on life based on whether the social life is meaningful and understandable; (ii) social actualisation: viewing the society as possessing potential for one to grow; (iii) social integration: making one feel the sense of belonging to and be accepted by his/her community; (iv) social acceptance: the feeling of accepting other people; and (v) social contribution: seeing oneself as having something worthwhile to contribute to the society. Under this umbrella, concepts such as fully functioning person, meaningfulness, self-actualisation and vitality can be understood. This orientation appears to be particularly relevant in developmental settings, as it underlies the realisation of human potential and individual strengths (Ryan & Deci, 2001; Ryff 1989).

In addition to Keyes and Ryff's (1995) eudaimonic perspective, this psychosocial well-being programme incorporated the concept of coping self-efficacy (Chesney, Neilands, Chambers, Taylor & Folkman, 2006; Snyder's, 1991) view and importance of hope. The role of coping in maintaining psychological well-being cannot be over emphasised. Kim, Greenberg, Seltzer and Krauss (2003) assert that effective coping strategies are used by individuals in

avoiding psychological distress. Snyder, Fieldman, Shorey and Rand (2002) characterise hope not as a passive emotional phenomenon that occurs only in the dark moments, but as a process through which individuals actively pursue their goals. Lopez, Rose, Robinson, Marques and Pais-Ribeiro (2009) describe hope as a human strength manifested in capacities to: (i) clearly conceptualise goals (goals thinking); (ii) develop the specific strategies to reach those goals (pathway thinking); and (iii) initiate and sustain the motivation for using those strategies (agency thinking). Considering many socio-economic and other challenges that university students experience, the prevalence of depression in this population group cannot be overlooked. The Patient Health Questionnaire (PHQ) (Kroenke, Spitzer & William, 2001), is also used to measure the extent of symptoms of major depression, as conceptualised in the DSM-IV criteria. The PHQ was selected due to many socio-economic challenges that university students face. The question would then be what the effect of the newly developed programme may be on the well-being of the students taking part in it?

Previous research had shown that socio-demographic factors may influence well-being (Kruger, Wissing, Towers & Doak, 2012; Roothman, Kirsten & Wissing, 2003), but it is not known whether such factors also play a role in the susceptibility for growth during interventions. Therefore this study will also explore whether there are differences in outcomes for gender and marital status.

The aim of the study is to determine the effect of a programme to facilitate well-being in a group of Tanzanian students, and whether gender and marital status played a role.

Method

Design

This study consists of a two-group pre-post testing design. Rumrill and Dimitrov (2003) argue that pretest/post-test designs are the best for studies comparing groups and/or measuring changes resulting from experimental treatments. They further state that pretest/post-test measurement of changes provide a vehicle for assessing the impact of services, as well as the effects of specific counselling and allied health interventions.

Participants

Due to class schedule and other students' activities, a convenience sample of first-year university students formed the experimental group, while the second years formed the control group. Participants of the two groups were between the ages of 19 and 40 years of age and were enrolled as full-time undergraduate students at a Tanzanian university. The mean age for the control group was 31, and 27 for the experimental group respectively. Members of the experimental group included 25 females of which 17 were single and 8 married; 19 members of this group were male with 9 married and 10 single. The control group had 17 males (15 married and 2 single) and 21 females of which 10 were married and 11 were single.

Data collection

The following measures were implemented to evaluate psychosocial well-being before and after programme implementation:

The Mental Health Continuum-Short Form (MHC-SF), Keyes (2005a); (2006). The 14-item MHC-SF was implemented, as it measures various levels of mental health on the upper end of well-being. It has three sub-scales: a) Emotional Well-Being (EWB), defined in terms of positive affect and satisfaction with life; b) Social Well-Being (SWB), described in terms of

social acceptance, social actualisation, social contribution, social coherence and social integration; and c) Psychological Well-Being (PWB), described in terms of autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance. Respondents rate the frequency of each statement occurring in the past month on a 6-point Likert scale ranging from "never" (0) to "almost every day" (5). Scores on the scale as a whole may also be used to categorise an individual as languishing, moderate mentally healthy, or flourishing. Keyes et al. (2008) validated a Setswana version of this scale for a Setswana-speaking population and found sufficient reliability (alpha = 0.72), as well as good construct, convergent and discriminant validity for this scale in an African context. The Cronbach alpha reliability index in the current study was 0.78.

The Coping Self-efficacy Scale (CSE), Chesney et al. (2006). This 26-item scale measures individuals' evaluations of their confidence (perceived self-efficacy) with respect to carrying out coping strategies in dealing with challenges or threats, and not only coping strategies *per se.* Participants rated each statement on a 10 point scale, from "cannot do at all" (0) to "certain can do" (10). The CSE thus provides a measure of a person's perceived ability to cope effectively with life challenges, and has also previously been implemented to assess changes in coping efficacy over time in intervention research cf (Chesney et al., 2006). The CSE has three sub-scales: Problem-focused coping (PFC), stop unpleasant emotions and thoughts (SUE), and support from friends and family (SFF). The authors provided evidence of good reliability and validity. Wissing et al. (2011) reported good reliability indices for the CSE scale (from 0.86 - 0.90) in various South African groups. The Cronbach alpha reliability index in the current study was 0.80.

The Patient Health Questionnaire: Depression Symptoms (PHQ-9), Kroenke, Spitzer and William (2001). The 9-item PHQ measures the extent of symptoms of major depression, as conceptualised in the DSM-IV criteria. Respondents rate whether each symptom occurred "not at all" (0) to "nearly every day" (3) over the past two weeks. The Patient Health Questionnaire was selected, since it is designed to recognise the symptoms of major depression, which are on the lower end of the mental health continuum. Kroenke et al. (2001) reported Cronbach alpha reliability values of 0.86 and 0.89 for the PHQ-9 in a Western sample. The PHQ-9 was reported to have good validity in Nigerian students (Adewuya, Ola & Afolabi, 2006). The Cronbach alpha in the current study was 0.57.

The Trait Hope Scale (THS); Snyder et al. (1991). The THS is a 12-item self-report scale offering a brief but specific character trait that is typical of highly hopeful individuals. The scale has two subscales: Pathways (P) and Agency (A) with 4 items each, and 4 distracter items. Responses were given on an 8-point scale from 1=definitely false, to 8=definitely true. The scale offers a measure of one's level of hope and optimism. The Agency subscale was not reliable, and was not used in the analyses.

Intervention

The programme consisted of eight sessions of 50 minutes duration, conducted over eight weeks. Each session was structured and comprised mini-lectures, demonstrations, brief exercises, and focused group discussion. As part of the programme's educational nature, facilities such as whiteboards, power point presentations, and other course materials were used. Following the mini-lecture, specific exercises were undertaken to provide the participants with hands-on experience on the topics discussed. At the end of each session participants were encouraged to do

some brief homework assignments for the following session, which in total could take about 30 minutes of the participant's time. The homework content was described in the participant manual.

The content of the well-being programme comprised of the following themes and sessions: Session 1: Self-knowledge, covering continual process of developing one's potential. Session 2: Perspective and meaning, focusing on having a clear comprehension of life's purpose. Session 3: Hope, with a special focus on the development of internal locus of control and control over one's environment; Sessions 4 & 5: Relationship focusing on the development of preventives measure to build strength and resilience in families today and in future. Sessions 6 & 7: physical exercise, aiming at educating participants on the usefulness of physical exercise in self-treatment and prevention of depressive illness; Session 8: coping, addressing the process of managing taxing circumstances; this session also summarised the content of all the previous sessions.

Procedure

Participants were selected on availability basis, and written informed consent was obtained first from the university's administration then later from participants themselves. Before presenting the programme, participants' levels of well-being were pre-tested by use of the selected scales. The well-being promoting programme was presented over eight weeks to the experimental group while the control group had no intervention. Four weeks after the presentation of the well-being promoting programme, all study participants were asked to complete the questionnaires again. At every stage of the research, participants were fully informed about the voluntary nature of this study and that they could withdraw from the study at any stage.

Data analysis

Descriptive statistics and reliability indices for measures were determined, as well as whether significant differences exist between the experimental and control groups at pre-testing, with t-test and comparatively after programme implementation within each group - ANCOVA. Statistica (Marques de Sa, 2003) was used in consultation with the North-West University's Statistical Consultation Services to perform the statistical analysis. Because there was no random allocation to groups, statistical significance is reported for completeness, but more emphasis is given to effect sizes in the interpretation.

Ethical aspects

Permission to conduct this research was obtained for the larger FORT 3 project from the Ethical Committee of the North-West University, Potchefstroom Campus (NWU- 00002-07-A2). Permission for administering the measurement scales was also obtained in the same process. Permission to conduct the research with university students was obtained from the relevant authorities. All participants gave written informed consent before taking part. Before commencing with the intervention and the focus-group interview, each participant and interviewee was informed of the ethical considerations relevant to this type of research, as well as their right to withdraw at any time, should they so choose. The control group also had the opportunity to go through the programme when the project was completed.

Results

Results are presented in tables focusing on the reliability of the scales used, the differences between the two groups before the intervention, and the significance of changes within and between the groups after the intervention.

Descriptive statistics for all the scales as combining experimental and control group are reported in Table 1.

[Insert table 1 about here]

As depicted in Table 1, Cronbach alphas varied for the different scales from satisfactorily for the total scale scores of the MHC-SF and CSE, to very moderate for the PHQ-9, and moderate for sub-scales. Field (2009) notes that Chronbach's alpha should be applied separately to each scale if a questionnaire has them. He further says that even a d value of 0.7 can, realistically, be expected because of the diversity of the constructs being measured when dealing with psychological constructs. The latter can be explained by the few items per sub-scale.

To determine whether these two groups were comparable before the intervention, t-tests were done. Table 2 reports this finding.

[Insert table 2 about here]

As seen in Table 2 from the t-test, the control group was already more inclined than the experimental group to high levels of hope and used suppression of unpleasant emotions as a way of coping before the intervention. Table 2 indicates that the control group had higher scores than the experimental group on all scales and subscales, except on CSE_SFF.

In Table 3, the differences within in the experimental and control groups are shown after intervention. This table indicates whether there are any significant changes in the groups after the intervention.

[Insert Table 3 about here]

From the results of the dependent t-tests, it is noted that the experimental group marked an increase (medium effect) after the programme on CSE- PFC subscale, MHC_SWB subscale, and MHC Total (d = 0.33; 0.39 and 0.34 respectively). Small effect size changes are also noted in the same group on the THS (d=.22), CSE-tot (d= 0.30), and the PHQ (d = 0.20). Although there was no intervention to the control group, the post-test results noted that these participants were inclination to use problem-focused coping as a coping strategy increased (d = 0.54) at a post-testing in comparison to pre-test. The other area that increased was CSE-Tot (0.37) which might indicate possibility of effect.

Table 4 reports the Analysis of Covariance (ANCOVA) between the experimental and control group. An ANCOVA was done on the post-test values to correct for differences in the pretest with adjustments of the means to determine whether a significant difference could be identified between the control and experimental groups after the programme intervention and, taking initial differences into account, it is noted that the control group had higher scores.

[Insert table 4 about here]

The adjustment of means was effected to ensure comparability of the groups for all the scales.

Tables 5 and 6 present the results of the experimental and control groups after the intervention considering gender and marital status as variables.

[Insert Table 5 about here]

As observed in Table 5, change is also noticed within the experimental group among married participants on using of suppression of unpleasant emotions (d = 0.79) as a coping

strategy, with both a large and medium effect on the CSE total (0.62). On the other hand, Table 5 shows that single participants in the experimental group had higher scores than the control group on MHCSF-SWB (d = 0.33), MHCSF tot (d = 0.37), and on PHQ TT (d = 0.35). Change is also observed in the married control group in the areas of problem-focused coping and general coping self-efficacy, while the unmarried participants in the control group register a relatively large effect on the THS of d = 0.79.

[Insert Table 6 about here]

Table 6 considers gender as the variable to compare both groups. An increase in the experimental group is noted with females on various subscales that is both the problem-focused coping and suppression of unpleasant emotion sub-scales showed a medium effect of 0.46 each; the total scores of the coping self-efficacy scale showed a d-value of 0.55; the social well-being sub-scale a d-value of 0.65 and the MHC total a d-value of 0.5. In the same group, males register an increase on hope (THS) (0.26) and MHCSF-EWB (d = 0.67). In the control group an effect is noted in males, especially on problem-focused coping (d = 1.1). The total scores of coping self-efficacy also showed a large effect of 0.96 males in the control group. The area of hope noted a large negative effect of = -0.96 and the emotional well-being sub-scale of the Mental Health Continuum with a medium effect of 0.63 on males in the same group. A medium effect of 0.50 is noted on the "pathways" subscale of the Hope Scale, while the females showed below medium effect on all scales.

[Insert Table 7 about here]

Table 7 considers the prevalence of psychological well-being, as measured by MHC_SF. Findings indicate the prevalence of flouriship in the experimental group as follows: 68.18% before the intervention and 83.33% afterward, while the moderately mentally healthy were 31.82% before the intervention and 16.67% after the intervention. No member was languishing in both the control and the experimental group before or after the intervention. In the control group, the level of flourishing was at 81.58% in the pre-test, then 88.46% in the post-test. Those moderately mentally healthy were 18.42% in the pre-test while the post-test was 11.54%. The findings thus show that the percentage flourishing participants increased for the experimental group with 15.15%, whereas the increase over time for the control group was only 6.88%.

Discussion

The current study investigated the effect that the newly designed programme for promoting psychological well-being had on university students in Tanzania as measured with the Mental Health Continuum-Short Form scale, Coping Self-Efficacy scale, The Trait Hope Scale, and Patient Health Questionnaire: Depression symptoms. Cronbach's alpha values larger than 0,70 are viewed as adequate (Nunnally, 1978). Measuring instruments displayed acceptable reliability indices, except for the PHQ-9, which had a very moderate reliability index.

The evaluated psychosocial well-being programme for university students had a significant effect on the experimental group. Results obtained with measures of Coping Self-Efficacy-problem focused coping, Mental Health Continuum-social well-being, Mental Health Continuum-Total scores, and the Trait Hope Scale showed psychosocial well-being was promoted in some respects and participants developed skills for building and maintaining psychological well-being. Berkel (2009) is of the opinion that problem-focused coping involves

altering or managing the problem that is causing the stress and is highly action focused, as it provides individuals with a sense of control. Students have lower level of stress, anxiety and depression when they engage in problem-focused coping compared to other coping styles. Penland, Masten, Zelhart, Fournet and Callahan (2000) found that participants who engaged in problem-focused coping experienced a greater decrease in depression symptoms compared to participants who did not. Crockett, Iturbide, Torres, McGinley, Raffaelli and Carlo (2007) also found problem-focused coping to be the most adaptive coping style employed by university students. In a study with French students, Bouteyre, Maurel and Bernaud (2007) further demonstrate the negative association between problem-focused coping and psychological distress in university students.

Whereas the experimental group does not seem to have improved in the areas of suppression of unpleasant emotions, it is important to note that the control group was already inclined toward higher scores on this subscale than the experimental group before the intervention.

After the presentation of the programme, a number of effects and increases were observed within the groups as well. Suppressing unpleasant emotions was observed to be more used by the married participants than their unmarried counterparts in the experimental group. Such scores suggest an increase of positive emotions. Although no studies to date have examined how marital status influences suppressing unpleasant emotions, the voluminous literature on the effects of marriage on physical and mental health yields some insights. This literature finds that married persons have greater psychological and physical well-being than their single counterparts (Keyes & Shapiro, 2008; Shapiro, 1996). Chesney, Darbes, Hoerster, Taylor,

Chambers and Anderson (2005) suggest that the increase of positive emotions is often found to be associated with health-promoting conditions that may have lasting benefit to health and well-being. Xu and Roberts (2010) report that positive emotions and attitudes lead to reduced blood pressure, improved hormonal balance, resistance against the common cold, and therefore increased longevity. The results on using problem-focused coping, which covers among others a sense of commitment, displays the great effect on married participants and is in line with (Salami's, 2008) findings, which state that older and married individuals have more commitment to their organisations and education than the younger and single workers.

A difference was also observed between married and unmarried participants of this study on the Coping Self-Efficacy total scores. Coping self-efficacy entails one's perceived level of confidence in performing coping behaviour when faced with life challenges (Chesney et al., 2006). By comparing the levels of psychological well-being of the married and single participants in this study, we gain an indication that marital status is another aspect that deserves consideration in well-being.

It is generally believed that people are equal but not the same. Gender differences in psychological well-being are of great importance in the contemporary society, as different scores of this research reveal. Roothman, Kirsten and Wissing (2003) found that gender difference does exist in specific facets of well-being, as was also found in some instances in the current study. Findings of this study are comparable to those of Walker (2009), where overall scores on well-being for women were higher than men. There was no significant difference in gender and marital status on the occurrence of depression, as measured by the Patient Health Questionnaire

(PHQ-9). The low reliability index for the PHQ-9 obtained in this study need to be taken into account in the interpretation of this finding.

The difference observed between the control group and experimental group in the pre-testing may be related to the natural composition of the two groups. For convenience of the schedule of participants, the control group was made up of predominantly second-year students, while the experimental group was mostly first-year students. The lower scores of the experimental group on suppressing unpleasant emotions before the programme is likely to be linked with significant problems associated with adjusting to university life. Such results are in line with Lowe and Cooke's (2003) conclusion that students' well-being in the first year is poorer than during the rest of their studies. The difference of social well-being between the two groups is assumed to have a connection with their newness on campus, where their social network (making friends) is still underdeveloped. Baker and Siryk (1984) found this reality stating that the first year of university is a year of adjustment where student well-being is likely to have social challenges amongst others.

The prevalence of different levels of mental health of this group of university students was quite different from that found by previous studies conducted. Only 42% of South African youth were flourishing while 58% were not functioning optimally in a South African study (Van Schalkwyk, 2009). Keyes (2006) and Keys (2007) noted that 38% of youth in the USA were flourishing, 56% were moderately mentally healthy, and 6% were languishing; whereas only 18% of USA adults were flourishing, 65% moderately mentally healthy, and 17% were languishing. Findings of this study on high levels of psychological well-being are comparable to those of Rugira (Article 1), where the level of flourishing was found to be at 72.7% in a population of 277 university students in Tanzania. Findings showed that the percentage of

flourishing increased noticeably for the experimental group after the intervention in comparison to the control group.

This study had limitations that need to be taken into account when findings are interpreted. A convenience sample was used, and the initial levels of well-being differed greatly between the experimental (first-year students) and the control group (second-year students). Only self-report measures were used. Findings from this study can thus not be generalised to other groups.

Conclusion

The aim of this study was to evaluate the effect of a newly designed psychosocial well-being programme for university students. Although the two groups were not comparable at the beginning of the programme, it still seems that there was a positive change to the experimental group who followed the programme. The programme was specifically effective on suppressing unpleasant emotions in the case of married participants. The programme further increased problem-focused coping. It is hoped that this type of programme can form a natural part of the health promotion concept in universities in Tanzania and elsewhere.

References

Adewuya, A. O., Ola, B. A., & Afolabi, O. O. (2006). Validity of the Patient Health Questionnaire (PHQ-9) as a screening tool for depression amongst Nigerian university students. *Journal of Affective Disorders, 96*(1-2), 89-93. doi: 10.1016/j.jad.2006.05.021 .

Baker, R. W., & Siryk, B. (1984). Measuring adjustment to college. *Journal of Counseling Psychology, 31*(2), 179-189.

Belaise, C., Fava, G. A., & Marks, I. M. (2005). Alternatives to debriefing and modifications to cognitive behaviour therapy for posttraumatic stress disorder. *Psychotherapy and Psychosomatics, 74,* 212-217.

Berkel, H. (2009). *The relationship between personality, Coping styles and stress, anxiety and depression* (Unpublished master's thesis). University of Canterbury, Christchurch: New Zealand.

Bouteyre, E., Maurel, M., & Bernaud, J. L. (2007). Daily hassles and depressive symptoms among first year psychology students in France: The role of coping and social support. *Stress and Health: Journal of the International Society for the Investigation of Stress, 23*(2), 93-99.

Brandon, C. M., & Cunningham, E. G. (1999). *Bright ideas manual*. Melbourne, Australia: OZ Child.

Caffo, E., Belaise, C., & Foresi, B. (2008). Promoting resilience and psychological well-being in vulnerable life stages. *Psychotherapy and Psychosomatics, 77,* 331-336.

Chesney, M. A., Darbes, L. A., Hoerster, K., Taylor, J. M., Chambers, D. B., & Anderson, D. E. (2005). Positive emotions: Exploring the other hemisphere in behavioural medicine. *International Journal of Behavioural Medicine, 12*, 50-58.

Chesney, M. A., Neilands, T. B., Chambers, D. B., Taylor, J. M., & Folkmam, S. (2006). A validity and reliability study of the coping self-efficacy scale. *British Journal of Health Psychology, 11*, 421-437.

Cooke, R., Beewick, B. M., Barkham, M., Bradley, M., & Audin, K. (2006). Measuring, monitoring and managing the psychological wellbeing of first year university students. *British Journal of Guidance & Counselling, 34*(4), 505-517.

Crockett, L. J., Iturbide, M. I., Torres, S. R. A., McGinley, M., Raffaelli, M., & Carlo, G. (2007). Acculturative stress, social support, and coping: Relations to psychological adjustment among Mexican American college students. *Cultural Diversity and Ethnic Minority Psychology, 13*(4), 347-355.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334.

Ellis, S. M., & Steyn, H. S. (2003). Practical significance (effect sizes) versus or in combination with statistical significance (p-values). *Management Dynamics, 12*, 51-53.

Fava, G. A., & Ruini, C. (2003). Development and characteristics of a well-being enhancing psychotherapy strategy: well-being therapy. *Journal of Behavior Therapy and Experimental Psychiatry, 34*, 45-63.

Fava, G. A., Ruini, C., Rafanelli, C., Finos, L., Salmaso, L., Mangelli, L., & Sirigatti, S. (2005). Well-being therapy of generalized anxiety disorder. *Psychotherapy and Psychosomatics, 74*, 26-30.

Frankfort-Nachmias, C., & Nachmias, D. (1992). *Research methods in the social sciences* (4th ed.). New York, USA: St. Martin's Press.

Gillham, J. E., Reivich, K. J., Jaycox, L., & Seligman, M. (1995). Preventing depressive symptoms in school-children: two year follow-up. *Psychological Science, 6*, 343-351.

Gillham, J. E., Reivich, K. J., Freres, D. R., Chaplin, T. M., Shatte , A. J., Samuels, B., et al. (2007). School-based prevention of depressive symptoms: a randomized controlled study of the effectiveness and specificity of the Penn Resiliency Programme. *Journal of Consulting and Clinical Psychology, 75*, 9-19.

Jaycox, L. H., Reivich., K. J., Gillham, J., & Seligman, M. E. P. (1994). Prevention of depressive symptoms in school children. *Behaviour Research and Therapy, 95*, 534-541.

Kam, C. M., Greenberg, M. T., & Walls, C. T. (2003). Examining the role of implementation quality in school-based prevention using the PATHS curriculum. Promoting alternative thinking skills curriculum. *Prevention Science: The Official Journal of the Society for Prevention Research, 4*, 55-63.

Kelley, T. M. (2003). Health realization: A principle-based psychology of positive youth development. *Child and Youth Care Forum, 32*(1), 47-72.

Kendal, P. C. (1994). Treatment of anxiety disorders in children: a randomized clinical trial. *Journal of Consulting and Clinical Psychology, 62*, 100-110.

Keyes, C. L. M. (2009). Atlanta: Brief description of the mental health continuum short form (MHC-SF). Retrieved from: http://www.sociology.emory.edu/ckeyes/.

Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing. *American Psychologist, 62*(2), 95-108.

Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *American Journal of Orthopsychiatry, 76*, 395-402.

Keyes, C. L. M., Ryff, C. M., & Shmotkin, D., (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology. 82*(6), 1007-1022.

Keyes, C. L. M., & Shapiro, A. (2008) Marital status and social well-being: Are the married always better off*? Social Indicators, 88*(2), 329-346.

Keyes, C. L. M., Wissing, M. P., Potgieter, J. P., Temane, Q. M., Kruger, A., & Van Rooy, S. (2008). Evaluation of the Mental Health Continuum–Short Form (MHC–SF) in Setswana-speaking South Africans. *Clinical Psychology & Psychotherapy, 15*(3), 181-192. doi:10.1002/cpp.572.

Kim, H. W., Greenberg, J. S., Seltzer, M. M., & Krauss, M. W. (2003). The role of coping in maintaining the psychological well-being of mothers of adults with intellectual disability and mental illness. *Journal of Intellectual Disability Research. 47*(4/5) 313-327.

Kroenke, K., Spitzer, R. L., & William, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Medicine, 16*, 606-613.

Kruger, A., Wissing, M. P., Towers, G. W., & Colleen, D. (2012). Sex differences independent of other psycho-socio-demographic factors as predictor of body mass index in black South African adults. *Journal of Health, Population and Nutrition, 30(*1):56-65.

Lopez, S. J., Rose, S., Robinson, C., Marques, S. C., & Pais-Ribeiro, J. L. (2009). Measuring and promoting hope in school children. In R. Gilman, E. S. Huebner, & M. J. Furlong (Eds.), *Handbook of positive psychology in the schools* (pp. 37-51). Mahwah, NJ: Lawrence Erlbaum.

Lowe, H., & Cooke, A. (2003). Mind the gap: Are students prepared for higher education? *Journal of Further and Higher Education, 27*, 53-76.

McGrath, H., & Noble, T. (2003). *Bounce back! A classroom resiliency programme for schools. Book 1*: *The Teacher's Handbook*. Sydney, Australia: Pearson Education.

Meichenbaum, D., & Deffenbacher, J. L. (1998). Stress inoculation training. *The Counseling Psychologist, 1*, 69-90.

Nunnally, J. C. (1978). *Psychometric theory.* (2nd ed.). New York, USA: McGraw Hill.

Patton, G., Bond, L., Butler, H., & Glover, S. (2003). Changing schools, changing health? Design and implementation of the gatehouse project. *Journal of Adolescent Health, 33*, 231-239.

Penland, E., Masten, W., Zelhart, P., Fournet, G., & Callahan, T. (2000). Possible selves, depression, and coping skills in university students. *Journal of Personality and Individual Differences, 29*, 963-969.

Roothman, B., Kirsten, D., & Wissing, M. P. (2003). Gender differences in aspects of psychological well-being. *South African Journal of Psychology, 33*(4), 212-218.

Ruini, C., Belaise, C., Brombin, C., Caffo, E., & Fava, G. A. (2006). Well-being therapy in school settings: a pilot study. *Psychotherapy and Psychosomatics, 75*, 331-336.

Rumrill, P. D., & Dimitrov, D. M. (2003) Pretest-posttest designs and measurement of change. *Work*, 20, 159-165.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potential: A review of research on hedonic and eudaimonic wellbeing. *Annual Review of Psychology, 52*, 141-166.

Ryff, C. D. (1989). Happiness is everything, or is it? Exploration on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*(6), 1069-1083.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 64*(4), 719-729.

Salami, S. O. (2008). Demographic and psychological factors predicting organizational commitment among industrial workers. *Anthropologist, 10*(1), 31-38

Seligman, M. E. P. (1995). *The Optimistic Child*. NSW, Australia: Random House

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology. *American Psychologist, 55*(1), 410-421.

Shapiro, A. D. (1996). Explaining psychological distress in a sample of remarried and divorced persons: The influence of economic distress. *Journal of Family Issues, 17*(2), 186-203.

Snowden, M., Dhingra, S. S., Keyes, C. L. M., & Anderson, L. A., (2010). Changes in mental well-being in the transition to late life: Findings from MIDUS I and II. *American Journal of Public Health*. *100*(12), 2385-2388.

Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry, 13*, 249-275.

Snyder, C. R. (1994). *The psychology of hope: You can get there from here.* New York, USA: Free Press.

Snyder, C. R., Fieldman, D. R., Shorey, H. S., & Rand, K. L. (2002). Hopeful choices: A school Counselor's guide to Hope theory. *Professional School Counseling, 5*(5), 298-10.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*, 570-585.

Van Schalkwyk, I. (2009). Flourishing in a group of South African adolescents. (Unpublished doctoral Thesis). North-West University, Potchefstroom campus: South Africa.

Walker, C. J. (2009, August). *A Longitudinal Study on the Psychological Well-Being of College Students.* Research presented at the 117th convention of the American Psychological Association. Toronto, Ontario, Canada

Wissing, M. P., Khumalo, I. T., Oosthuizen, C. M., Nienaber, A. W., Kruger, A., Potgieter, J. C., & Temane Q. M. (2011). Coping self-efficacy as mediator in the dynamics of psychological well-being in various contexts. *Journal of Psychology in Africa, 21*(2), 165-172.

Xu, J., & Roberts, E. R. (2010). The power of positive emotions: It's a matter of life or death – Subjective well-being and longevity over 28 years in a general population. *Health Psychology, 29*(1), 9-19.

Table 1
Descriptive statistics and reliability for all measuring instruments for the experimental and control groups

Variable	Mean	Standard Deviation	Range		Cronbach alpha (α)
			Minimum	Maximum	
CSE_PFC	78.68	12.88	43.00	120.00	0.64
CSE_SUE	55.55	12.59	33.00	90.00	0.71
CSE_SFF	34.49	7.29	15.00	50.00	0.55
CSE_Tot	168.83	25.64	116.48	260.00	0.80
THS-P	27.64	4.16	10.66	32.00	0.55
THS-Total	52.66	6.83	29.66	63.00	0.58
MHCSF_EWB	9.80	2.91	3.00	14.00	0.64
MHCSF_SWB	16.35	4.73	5.00	24.00	0.64
MHCSF_PWB	25.03	3.06	17.00	30.00	0.57
MHCSF_Tot	51.30	8.61	28.00	66.50	0.78
PHQ_TT	6.56	3.74	0.00	15.75	0.57
PHQ_VI	0.89	0.62	0.00	3.00	N/A

*Note***:** CSE – Coping Self Efficacy scale, PFC – Problem Focused Coping, SUE – Suppressing Unpleasant Emotions and thoughts, SFF – Support from Friends and Family, THS= The Trait Hope Scale, THS-P=The Trait Hope Scale Pathways; MHCSF – Mental Health Continuum Short Form, - EWB – Emotional Well-Being, SWB – Social Well-Being, PWB – Psychological Well-Being, PHQ 9– Patient Health Questionnaire.

Table 2: *Differences between the experimental and control groups before the intervention*

Variable	Control group		Experimental group		T-test	Cohen's *d* value
	Mean	SD	Mean	SD	*p*	
CSE_PFC	80	11.32	77.3	14.2	0.3599	0.19
CSE_SUE	59.1	11.5	52	12.76	0.0126	0.56
CSE_SFF	34.1	6.98	34.8	7.66	0.6479	0.09
CSE_Tot	173.3	24.78	164.4	26.02	1.1292	0.34
THS-P	28.1	3.77	27.2	4.47	0.3526	0.2
Hope_Tot	54.5	5.41	50.9	7.57	0.0201	0.48
MHCSF_EWB	10.1	2.7	9.5	3.08	0.3481	0.19
MHCSF_SWB	17.5	3.89	15.3	5.16	0.0291	0.43
MHCSF_PWB	25.6	2.39	24.4	3.48	0.087	0.34
MHCSF_Tot	53.5	6.58	49.3	9.69	0.0272	0.43
PHQ_TT	6.6	4.07	6.4	3.38	0.7879	0.05
PHQ_VI	0.9	0.57	0.8	0.67	0.879	0.15

*Note***:** CSE – Coping Self Efficacy scale, PFC – Problem Focused Coping, SUE – Suppressing Unpleasant Emotions and thoughts, SFF – Support from Friends and Family, THS= The Trait Hope Scale, THS-P=The Trait Hope Scale Pathways; MHCSF – Mental Health Continuum Short Form, - EWB – Emotional Well-Being, SWB – Social Well-Being, PWB – Psychological Well-Being, PHQ 9 – Patient Health Questionnaire, SD – Standard Deviation. P <0.05, d=0.2 small effect, d = 0.5 medium effect, d= 0.8 large effect.

Table 3

With-in differences in the experimental and control groups after the intervention

Variable	Control group				Experimental group			
	Mean increase	**SD increase**	***P* Value**	**Effected size**	**Mean increase**	**SD increase**	***p* value**	**Cohen's d value**
CSE_PFC	6.59	12.2637	0.0047	0.54	4.79	14.6309	0.0505	0.33
CSE_SUE	0.84	10.8038	0.6606	0.08	2.36	14.2709	0.3138	0.17
CSE_SFF	1.37	6.8568	0.2653	0.20	0.92	8.08	0.4865	0.10
CSE_Tot	8.66	23.2939	0.0434	0.37	8.01	26.9664	0.0748	0.30
THS-Pathways	0.27	2.6766	0.5723	0.10	0.62	4.7306	0.3948	0.13
THS_v	0.33	4.8951	0.7072	0.07	1.8	8.1239	0.169	0.22
MHCSF_EWB	0.43	3.1205	0.4337	0.14	0.32	2.9274	0.4698	0.11
MHCSF_SWB	0.89	4.9403	0.3115	0.18	2.12	5.4596	0.0145	0.39
MHCSF_PWB	0	2.9512	1	0.00	-0.03	3.283	0.9705	0.01
MHCSF_Tot	1.21	8.2769	0.4114	0.15	2.46	7.24283	0.0353	0.34
PHQ_TT	0.15	4.2166	0.8353	0.04	0.03	4.3428	0.9608	0.01
PHQ_VI	0.03	0.5987	0.7459	0.05	-0.12	0.609	0.2545	0.20

*Note***:** CSE – Coping Self Efficacy scale, PFC – Problem Focused Coping, SUE – Suppressing Unpleasant Emotions and thoughts, SFF – Support from Friends and Family, THS= The Trait Hope Scale, THS-P=The Trait Hope Scale Pathways; MHCSF – Mental Health Continuum Short Form, - EWB – Emotional Well-Being, SWB – Social Well-Being, PWB – Psychological Well-Being, PHQ 9 – Patient Health Questionnaire, SD – Standard Deviation. P <0.05, d=0.2 small effect, d = 0.5 medium effect, d= 0.8 large effect.

Table 4
ANCOVA done on post-test to correct for pretest differences

Variable	Adjusted mean Control	Adjusted mean Experimental	MSE	*p*	Effect size *d*
CSE_PFC	85.09	84.625	162.43	0.8913	0.04
CSE_SUE	57.48	57.836	133.221	0.9102	0.03
CSE_SFF	36.93	35.522	42.991	0.421	0.21
CSE_Tot	178.76	178.734	598.95	1	0.00
THS -Pathways	28.48	28.138	10.651	0.683	0.10
THS_	54.56	53.6	35.264	0.5535	0.16
MHCSF_EWB	10.45	10.17	6.061	0.662	0.11
MHCSF_SWB	17.95	17.845	15.122	0.9183	0.03
MHCSF_PWB	25.48	24.626	8.681	0.2643	0.29
MHCSF_Tot	53.69	53.004	46.649	0.6988	0.10
PHQ_TT	6.66	6.365	18.11	0.8016	0.07
PHQ_Vi	0.91	0.906	0.201	0.9852	0.00

Note: CSE – Coping Self Efficacy scale, PFC – Problem Focused Coping, SUE – Suppressing Unpleasant Emotions and thoughts, SFF – Support from Friends and Family, THS= The Trait Hope Scale, THS-P=The Trait Hope Scale Pathways; MHCSF – Mental Health Continuum Short Form, - EWB – Emotional Well-Being, SWB – Social Well-Being, PWB – Psychological Well-Being, PHQ 9– Patient Health Questionnaire, MSE= Mean Squared Error. p <0.05, d=0.2 small effect, d = 0.5 medium effect, d= 0.8 large effect.

Table 5

Dependent t-Test to determine differences between singles and married in the experimental and control groups

Variable	Control Group								Experimental Group							
	Married				Single				Married				Single			
	MI	SDI	*p* Value	*d* value	MI	SDI	*P* Value	d value	MI	SDI	*p* Value	*d* value	MI	SDI	*p* value	*d* value
CSE_PFCv	7.57	12.79	0.0133	0.59	5.22	12.12	0.2326	0.43	5.3	12.09	0.1395	0.44	1.92	12.91	0.5476	0.15
CSE_SUEv	2.28	10.58	0.333	0.22	0	11.55	1	0.00	9.67	12.20	0.0144	0.79	-1.84	14.96	0.6173	-0.12
CSE_SFFv	2.28	6.17	0.1048	0.37	-0.77	8.32	0.7862	-0.09	0	7.14	1	0.00	0.76	8.94	0.7289	0.09
CSE_Totv	11.92	23.63	0.0315	0.50	4.44	24.45	0.6003	0.18	14.76	23.77	0.0448	0.62	0.98	26.16	0.8781	0.04
THS-Pathwaysv	0.03	3.04	0.9623	0.01	0.44	1.89	0.4995	0.23	0.83	5.55	0.5569	0.15	0.37	4.45	0.7285	0.08
THS_v	0.3	5.91	0.9805	0.05	1.08	1.37	0.0597	0.79	0.97	7.45	0.6322	0.13	3.39	8.81	0.132	0.38
MHCSF_EWB	0.8	2.84	0.2061	0.28	-1.33	2.83	0.195	-0.47	0.56	2.22	0.3269	0.25	0.63	3.83	0.4883	0.16
MHCSF_SWB	1.2	5.33	0.314	0.22	0.05	4.66	0.9723	0.01	1.1	3.89	0.2722	0.28	2.25	6.77	0.1762	0.33
MHCSF_PWB	0.14	3.2(	0.8428	0.04	-0.55	2.07	0.4436	-0.27	-0.37	3.36	0.662	-0.11	0.33	3.50	0.691	0.09
MHCSF_Tot	2	8.40	0.2872	0.24	-1.88	7.48	0.4718	-0.25	1.28	6.98	0.4718	0.18	3.26	8.83	0.1348	0.37
PHQ_TT	0.52	4.54	0.6026	0.11	-0.06	3.69	0.9564	-0.02	-0.64	4.79	0.6662	-0.13	1.22	3.51	0.215	0.35
PHQ_VI	-0.05	0.56	0.6683	-0.09	0.28	0.49	0.1723	0.57	-0.11	0.93	0.7287	-0.12	0.12	0.34	0.1638	0.35

*Note***:** CSE – Coping Self Efficacy scale, PFC – Problem Focused Coping, SUE – Suppressing Unpleasant Emotions and thoughts, SFF – Support from Friends and Family, THS= The Trait Hope Scale, THS-P=The Trait Hope Scale Pathways; MHCSF – Mental Health Continuum Short Form, - EWB – Emotional Well-Being, SWB – Social Well-Being, PWB – Psychological Well-Being, PHQ 9– Patient Health Questionnaire, SDI – Standard Deviation Increase, MI – Mean Increase,. p <0.05, d=0.2 small effect, d = 0.5 medium effect, d= 0.8 large effect.

Table 6

Dependent t-Test to determine differences between males and females in the experimental and control groups

Variable	Control Group								Experimental Group							
	Male				Female				Male				Female			
	MI	SDI	*p* Value	d	MI	SDI	*p* value	d	MI	SDI	*p* Value	d	MI	SDI	*p* value	d
CSE_PFCv	9.77	8.88	0.0005	1.10	3.41	14.50	0.3609	0.24	1.56	13.10	0.6402	0.12	7.14	15.52	0.0423	0.46
CSE_SUEv	3.18	9.52	0.2002	0.33	-1.49	11.79	0.6194	-0.13	-2.96	13.99	0.4092	-0.21	6.24	13.48	0.0414	0.46
CSE_SFFv	0.93	4.99	0.4636	0.19	1.81	8.48	0.4059	0.21	1.31	6.85	0.4551	0.19	0.63	9.02	0.7438	0.07
CSE_Totv	13.84	14.38	0.0015	0.96	3.49	29.29	0.6397	0.12	-0.05	27.77	0.9935	0.00	13.89	25.38	0.0179	0.55
THS –Pathwaysv	-0.5	3.04	0.5199	-0.16	1.04	2.08	0.0635	0.50	0.81	4.80	0.4811	0.17	0.48	4.77	0.6197	0.10
THS_v	--0.62	6.46	0.7146	0.01	1.22	2.69	0.0873	0.45	1.96	7.40	0.291	0.26	1.68	8.78	0.3684	0.19
MHCSF_EWB	1.75	2.77	0.0231	0.63	-0.87	2.96	0.256	-0.29	1.8	2.69	0.011	0.67	-0.74	2.66	0.1766	-0.28
MHCSF_SWB	1.18	5.93	0.4358	0.20	0.6	3.88	0.5393	0.15	0.22	5.19	0.8578	0.04	3.49	5.33	0.0032	0.65
MHCSF_PWB	-0.12	3.07	0.8729	-0.04	0.12	2.92	0.8662	0.04	-0.5	3.35	0.5347	-0.15	0.32	3.26	0.6194	0.10
MHCSF_Tot	2.36	8.46	0.2816	0.28	0.07	8.19	0.9719	0.01	1.43	8.35	0.4768	0.17	3.2	6.77	0.0261	0.47
PHQ_TT	0.28	4.97	0.819	0.06	0.02	3.47	0.9788	0.01	0.67	3.52	0.4561	0.19	-0.64	5.11	0.6348	-0.13
PHQ_VI	0.07	0.62	0.6713	0.11	0	0.60	1	0.00	0.07	0.73	0.7201	0.10	0.16	0.51	-0.0891	0.31

*Note***:** CSE – Coping Self Efficacy scale, PFC – Problem Focused Coping, SUE – Suppressing Unpleasant Emotions and thoughts, SFF – Support from Friends and Family, THS= The Trait Hope Scale, THS-P=The Trait Hope Scale Pathways; MHCSF – Mental Health Continuum Short Form, - EWB – Emotional Well-Being, SWB – Social Well-Being, PWB – Psychological Well-Being, PHQ 9 – Patient Health Questionnaire, SDI – Standard Deviation Increase, MI – Mean Increase,. p <0.05, d=0.2 small effect, d = 0.5 medium effect, d= 0.8 large effect.

Table 7

Prevalence of psychological well-being

	Pre-test			Post-test		
	FL	MMH	L	FL	MMH	L
Control group	81.58%	18.42%	0.0%	88.46%	11.54%	0.0%
Experimental group	68.18%	31.82%	0.0%	83.33%	16.67%	0.0%

*Note***:** FL – Flourishing; MMH – Moderately Mentally Healthy; L – Languishing.

SECTION 5: CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

Summary and Conclusions

The aims of this study were (i) to explore the prevalence of various degrees of psychological well-being among Tanzanian university students (article 1); (ii) to develop a psychological well-being promoting programme (article 2); and to implement and evaluate the effect of the proposed psychological well-being promoting programme (article 3).

The first article reported the results of the first phase of the study of establishing the prevalence of levels of psychological well-being of a group of university students by using Keyes' (2009) Mental Health Continuum (Short Form). Data was gathered from a convenience sample of 279 undergraduate students (19 to 40 years of age). Findings indicated the prevalence of levels of positive mental health in this group of university students in Tanzania as follows: 3.5% languishing, 23.6% moderately mentally healthy, and 72.7% flourishing, as measured with the MHC-SF.

The conclusion revealed that the percentage of flourishing participants in this study is much higher than those found in previous studies in other countries of the world. The reasons for this higher positive psychological well-being need to be explored further. Promotive and preventative programmes can be developed to ensure maintenance of well-being in students who are flourishing, and may enhance mental health in those who are moderately mentally healthy or languishing.

The second article focused on the development of the well-being promoting programme. While there are many studies that devote their attention on well-being development for various population groups, great attention was put on programmes for people with mental health issues (problems), while this study aimed at helping those considered mentally healthy to

remain flourishing. In line with positive psychology, literature on promoting and maintaining well-being among different population groups were reviewed and this study translated them into a practical programme that could enhance well-being among university students. The well-being promoting programme was developed as a psycho-education approach to instill buffers in this population group and keep them flourishing. Since no existing programme could be found that was specifically developed for the enhancement of higher levels of well-being and flourishing in Tanzanian university students, a well-being promoting programme was designed to increase levels of well-being, and possibly simultaneously build buffers for the future so that they may keep flourishing and lessen symptoms of pathology.

The study focus was more on human strengths and not weaknesses, addressing specific strengths such as self-knowledge, perspective and meaning, hope, relationship, physical exercise and coping. The well-being promoting programme is rather a simple programme proposed to strengthen existing features of strengths among university students on a daily basis, yet influencing them in the long-term. The study recommended that this eight-session programme be evaluated to determine its efficacy on the enhancement of well-being among university students in Tanzania.

In the third article, the study investigated the effect of a psychological well-being promoting programme on university students in Tanzania. From a multidimensional perspective, the study attempted to measure the effect on psychological well-being, as measured by MHC-SF, CSE, THS, and PHQ-9. Both experimental (n=44) and control (n=38) groups were tested before the programme and four weeks after completing the programme.

In this study, findings suggest that the well-being promoting programme did have an important positive effect to the participants in increasing aspects of psychological well-being in university students. This study recommends the well-being promoting programme to be used for university students in Tanzania, as it proved its efficacy. Its validation for use in other populations groups is also recommended.

Limitations and Recommendations

Regretfully, the Cronbach alpha of the Agency Subscale of the Hope Trait Scale (Snyder et al. 1991) was unacceptably low, suggesting that this scale could not be considered for discussion in the study. This study also did not test the relationship between well-being and academic achievement. In view of Howel's (2009) proposal, flourishing may enhance levels of awareness and interest within the learner such that opportunities and possibilities are considered and sought that would otherwise go undetected; future research may need to explore this possible relationship. Another limitation is the relatively small sample size especially in article 3. The extent to which current findings generalise to other student populations in the region (East Africa) and beyond is uncertain, as only one country participated. Future work with samples of a much smaller age range and cutting across all disciplines of study would be advised. Research need to be done to explore why developing countries tend to score higher on mental well-being scales than countries considered more developed. There needs to be further research to explore the causes of significant difference of psychological well-being in consideration of gender differences and marital status.

Reference

Howel, A. J. (2009). Flourishing: Achievement-related correlates of students' well-being: The *Journal of Positive Psychology, 4*(1), 1-13.

Complete Reference list

Adewuya, O. A, Ola, B. A, Afolabi, O. O. (2006). Validity of the patient health questionnaire (PHQ-9) as a screening tool for depression amongst Nigerian university students. *Journal of Affective Disorders, 96* (2006) 89-93.

Allport, G. W. (1950). *The individual and his religion: Psychological interpretation.* New York: Macmillan Company.

Ambler, V. M., (2006). *Who flourishes in College? Using positive psychology and student Involvement theory to explore mental health among traditionally aged undergraduates.* (Unpublished doctoral dissertation). College of William and Mary, Williamsburg, VA, USA.

Ano, G. G., & Vasconcelles E. B. (2005). Religious coping and psychological adjustment to stress: a meta-analysis. *Journal of Clinical Psychology, 61*, 461-480.

Baker, R. W., & Siryk, B. (1984). Measuring adjustment to college. *Journal of Counseling Psychology, 31*(2), 179-189.

Bandura, A. (1982). Self-efficacy mechanisms in human agency. *American Psychologist, 37,* 122-147.

Bandura, A. (1986). *Social Foundations of thoughts and action*. Englewood Cliffs, NJ, USA: Prentice Hall.

Bandura, A. (1997). *Self-efficacy*: *The exercise of control*. New York: Freeman.

Bandura, A., Taylor, C. B., Williams, S.L ., Mefford, I. N., & Barchas, J. D. (1985). Catecholamine secretion as a function of perceived coping self-efficacy. *Journal of Consulting and Clinical Psychology, 53,* 406-414.

Barnes, B.R. (2009). The Hawthorne Effect in community trials in developing countries. *International Journal of Social Research Methodology*, published online doi: 10.1080/13645570903269096.

Belaise, C., Fava, G. A., & Marks, I. M. (2005). Alternatives to debriefing and modifications to cognitive behaviour therapy for posttraumatic stress disorder. *Psychotherapy and Psychosomatics, 74,* 212-217.

Berkel, H. (2009). *The relationship between personality, Coping styles and stress, anxiety and depression* (Unpublished master's thesis). University of Canterbury, Christchurch: New Zealand.

Benight, C. C., & Bandura, A. (2004). Social cognitive theory of posttraumatic recovery: The role of perceived self-efficacy. *Behaviour Research and Therapy, 42,* 1129-1148.

Boivin, M. (2005). The origin of peer relationship difficulties in early childhood and their impact on children's psychosocial adjustment and development. In: R. E. Tremblay, R. G. Barr, & R. D. Peters,(eds.), *Encyclopaedia on Early Childhood Development* [online]. Montreal, Quebec: Centre of Excellence for Early Childhood Development; 2005:1-7. Retrieved from: http://www.childencyclopedia.com/documents/BoivinANGxp.pdf.

Bouteyre, E., Maurel, M., & Bernaud, J. L. (2007). Daily hassles and depressive symptoms among first year psychology students in France: The role of coping and social support. *Stress and Health: Journal of the International Society for the Investigation of Stress, 23*(2), 93-99.

Brandon, C. M., & Cunningham, E. G. (1999). *Bright ideas manual*. Melbourne, Australia: OZ Child.

Brown, D. S., & Lent, W. R. (2008). Social cognitive career theory and subjective well-being in the context of work. *Journal of Career Assessment, 16*(1), 6-21.

Buwalda, F. M., & Bouman, T. K. (2008). A Psychoeducational Approach to Hypochondriasis: Background, content, and practice guidelines. *Cognitive and Behavioural Practice, 15,* 231-243.

Caffo, E., Belaise, C., & Foresi, B. (2008). Promoting resilience and psychological well-being in vulnerable life stages. *Psychotherapy and Psychosomatics, 77,* 331-336.

Chambless, D. L., & Hollon, S. D. (1998). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology, 66,* 7-18.

Chesney, M. A., Darbes, L. A., Hoerster, K., Taylor, J. M., Chambers, D. B., & Anderson, D. E. (2005). Positive emotions: Exploring the other hemisphere in behavioural medicine. *International Journal of Behavioural Medicine, 12,* 50-58.

Chesney, M. A., Neilands, T. B., Chambers, D. B., Taylor, J. M., & Folkman, S. (2006). A validity and reliability study of the Coping Self-Efficacy Scale. *British Journal of Psychology, 11,* 421-437.

Chida, Y., Steptoe, A., & Powell, L. H. (2009). Religiosity/spirituality and mortality. *Psychotherapy and Psychosomatics, 78,* 81-90.

Chung, W. S., & Pardeck, J. T. (1995). An empirical analysis of the psychological well-being of undergraduate students majoring in social work. *Family Therapy. 22,* 121-124.

Cieslak, R., Benight, C., & Lehman, V. (2008). Coping self-efficacy mediates the effects of negative cognitions on posttraumatic distress. *Behavior Research and Therapy, 46*(7), 788- 798. doi: 10.1016/j.brat.2008.03.007.

Cohn, M. A., & Fredrickson, B. L. (2010). In search of durable positive psychology interventions: Predictors and consequences of long-term positive behaviour change. *The Journal of Positive Psychology, 5*(5), 355-366.

Coleman, L. M., Antonucci, T. C., & Adelman, P. K. (1987). Role involvement, gender, and well-being. In F.J. Crosby (Ed.), *Spouse, parent, worker: On gender and Multiple Roles* (pp. 138 -153). New Haven, USA: Yale University Press.

Collishaw, S., Pickles, A., Messer, J., Rutter, M., Shearer, C., & Maughan, B. (2007). Resilience to adult psychopathology following childhood maltreatment: evidence from acommunity sample. *Child Abuse Neglect, 31,* 211-229.

Connor, K. M., & Davidson, J. R. T. (2003). Development of a New Resilience Scale: The Connor-Davidson Resilience Scale (CDRISC). *Depression and Anxiety, 18,* 76-82.

Cooke, R., Beewick, B. M., Barkham, M., Bradley, M., & Audin, K. (2006). Measuring, monitoring and managing the psychological wellbeing of first year university students. *British Journal of Guidance & Counselling, 34*(4), 505-517.

Cooreman, M. P., Leroux-Roels, G., & Paulij, W. P. (2001). Vaccine- and hepatitis B immune globulin-induced escape mutations of hepatitis B virus surface antigen. *Journal of Biomedical Science, 8,* 237-247.

Covington, M. V. (2000). Goal theory, motivation, and school achievement: An integrative review. *Annual Review of Psychology, 51,* 171-200.

Crockett, L. J., Iturbide, M. I., Torres, S. R. A., McGinley, M., Raffaelli, M., & Carlo, G. (2007). Acculturative stress, social support, and coping: Relations to psychological adjustment among Mexican American college students. *Cultural Diversity and Ethnic Minority Psychology, 13*(4), 347-355.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334.

Csikszentmihalyi, M., & Seligman, M. E. P. (2000). An introduction to positive psychology. *American Psychological Association, 55,* 1-14.

Daining, C., & DePanfilis, D., (2007). Resilience of youth in transition from out-of-home care to adulthood. *Children and Youth Services Review, 29,* 1158-1178.

Davydov, D. M., Stewart, R., Ritchie, K., & Chaudieu, I. (2010). Resilience and mental health. *Clinical Psychology Review, 30,* 479-495.

Deci, E. L. & Ryan, R. M. (2008). The "what" and "why" of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry, 11,* 227-268.

Dolan, P., Peasgood, T., & Dixon, A., Knight, M., Phillips, D., Tsuchiya, A., & White, A. (2006). *Research on the Relationship Between Well-Being and Sustainable Development.* London, England: Tanaka Business School, Imperial College.

Dubow, E. F., Tisak, J., Causey, D., Hryshko, A., & Reid, G. J. (1991). A two-year longitudinal study of stressful life events, social support, and social problem-solving skills: Contributions to children's behavioural and academic adjustment. *Child Development, 62,* 583-599.

Ellis, S. M., & Steyn, H. S. (2003). Practical significance (effect sizes) versus or in combination with statistical significance (p-values). *Management Dynamics, 12*(4), 51-53.

Emmons, R. A. (2003). Personal goals, life meaning, and virtue: Wellspring of positive life. In Keyes and Haidt (Eds.), *Flourishing: Positive psychology and the life well-lived.* Washington, D.C.: American Psychological Association.

Fagg, J., Curtis, S., Stansfeld, S. A., Cattel, V., Tupuola, A. M., & Arephin, M. (2008). Area social fragmentation, social support for individuals and psychosocial health in young adults: Evidence from a national survey in England. *Social Science and Medicine, 66*(2): 242-54

Fava, G. A., & Ruini, C. (2003). Development and characteristics of a well-being enhancing psychotherapy strategy: Well-being therapy. *Journal of Behavior Therapy and Experimental Psychiatry, 34,* 45-63.

Fava, G. A., Ruini, C., Rafanelli, C., Finos, L., Salmaso, L., Mangelli, L., & Sirigatti, S. (2005). Well-being therapy of generalized anxiety disorder. *Psychotherapy and Psychosomatics, 74,* 26-30.

Fledderus, M., Bohlmeijer, E. T., & Smit, F., & Westerhof, G. J. (2010). Mental health promotion as a new goal in public mental health care: A randomized controlled trial of an intervention enhancing psychological flexibility. *American Journal of Health, 100,* 2372-2378.

Fox, K. R. (1999). The influence of physical activity on mental well-being. *Public Health Nutrition, 2*(3a), 411-418.

Frankfort-Nachmias, C., & Nachmias, D. (1992). *Research methods in the social sciences* (4th ed.). New York, USA: St. Martin's Press.

Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science, 13,* 172-175.

Gillham, J. E., Reivich, K. J., Freres, D. R., Chaplin, T. M., Shatte , A. J., Samuels, B. (2007). School-based prevention of depressive symptoms: a randomized controlled study of the

effectiveness and specificity of the Penn Resiliency Programme. *Journal of Consulting and Clinical Psychology, 75,* 9-19.

Gillham, J. E., Reivich, K. J., Jaycox, L., & Seligman, M. (1995). Preventing depressive symptoms in school-children: two year follow-up. *Psychological Science, 6*, 343-351.

Greenfield, E. A., & Marks, N. F. (2004). Formal volunteering as a protective factor of older adults' psychological well-being. *The Journal of Gerontology, 59B*(5), S258-S264.

Grossman, J. B., & Johnson, A. W. (1999). Assessing the Effectiveness of Mentoring Programs," in *Contemporary Issues in Mentoring*. Philadelphia, USA: Public/Private Ventures.

Gubi, P. M. (2007). *Prayer in counselling and psychotherapy: exploring a hidden meaningful dimension*. London, England: Jessica Kingsley Publishers.

Halualani, R. T. (2008). How do multicultural university students define and make sense of intercultural contact? A qualitative study. *International Journal of Intercultural Relations, 32,* 1-16.

Haraldsson, K. S., Lindgren, E. C. M., Fridlund, B. G. A., Baigi, A. M. A. E., Lydell, M. C., & Marklund, B. R. G. (2008). Evaluation of a school-based health promotion programme for adolescents aged 12–15 years with focus on well-being related to stress. *Public Health, 122,* 25-33.

Harpham, T. (2009). Urbanization and mental health in developing countries: A research role for social scientists, public health professionals and social psychiatrists. *Social Science & Medicine, 39(2),* 233-245.Harrington, R.C., Fudge, H., & Rutter, M.L. (1993). Child and adult depression: a test of continuities with data from a family study. *British Journal of Psychiatry, 162,* 627-633.

Harrington, R. C., Fudge, H., & Rutter, M. L. (1993). Child and adult depression: A test of continuities with data from a family study. *British Journal of Psychiatry, 162,* 627-633.

Harris, M. R. (2010). The relationship between psychological well-being and perceived wellness in graduate-level counseling students. (Unpublished doctoral thesis).Walden University, Minneapolis, MN, USA.

Helson, R., & Srivastava, S. (2001). Three paths of adult development: Conservers, seekers, and achievement. *Journal of Personality and Social Psychology, 80,* 995-1010.

Heppner, P. P., & Petersen, C. H. (1982). The development and implications of a personal problem-solving inventory. *Journal of Counselling Psychology, 29,* 66-75.

Howel, A. J. (2009). Flourishing: Achievement-related correlates of students' well-being: The *Journal of Positive Psychology, 4*(1), 1-13.

Jaycox, L. H., Reivich, K. J., Gillham, J., & Seligman, M. E. P. (1994). Prevention of depressive symptoms in school children. *Behaviour Research and Therapy*, *95*(3), 534-541.

Johnson, A. W. (1998). *An Evaluation of the Long-Term Impacts of the Sponsor-A-Scholar Programme on Student Performance. Final Report to the Commonwealth Fund*. Princeton, New Jersey, USA: Mathematica Policy Research, Inc.

Joshanloo, M. (2010). Investigation of the relation between cultural estrangement and hedonic and eudaimonic aspects of well-being in Iranian young adults. *Personality and Individual Differences, 49*(7), 733-737.

Kaldor, P., & Francis, J.L. (2002). The relationship between psychological well-being and Christian faith and practice in an Australian population sample. *Journal for the Scientific Study of Religion, 41*(1), 179-184.

Kam, C. M., Greenberg, M. T., & Walls, C. T. (2003). Examining the role of implementation quality in school-based prevention using the PATHS curriculum: Promoting alternative thinking skills curriculum. Prevention Science: *The Official Journal of the Society for Prevention Research, 4,* 55-63.

Kelley, T. M. (2003). Health realization: a principle-based psychology of positive youth development. *Child and Youth Care Forum, 32*(1), 47-72.

Kendal, P. C. (1994). Treatment of anxiety disorders in children: a randomized clinical trial. *Journal of Consulting and Clinical Psychology, 62,* 100-110.

Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4th ed.). Holt, NY: Harcourt College Publishers.

Keyes, C. L. M., & Haids, J. (Eds.). (2003). *Flourishing: Positive Psychology and the life well-lived* (pp. 293 – 312).Washington, D.C.: American Psychological Association.

Keyes, C. L. M. (1998). Social Well-Being. *Social Psychology Quarterly. 61,* 121-140.

Keyes, C. L. M. (2003). Complete mental health: An agenda for the 21st century. In Keyes and Haids (Eds) *Flourishing: Positive Psychology and the life well-lived* (pp. 293-312).

Keyes, C. L. M. (2002). The mental health continuum: from languishing to flourishing in life. *Journal of Health and Social Research, 43,* 207-222.

Keyes, C. L. M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 73,* 539-548.

Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *American Journal of Orthopsychiatry, 76,* 395-402.

Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing. *American Psychologist, 62*(2), 95-108.

Keyes, C. L. M. (2009). Atlanta: *Brief description of the mental health continuum short form (MHC-SF).* Retrieved from: http://www.sociology.emory.edu/ckeyes/.

Keyes, C. L. M., Ryff, C. M., & Shmotkin, D. (2002). Optimizing Well-Being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology, 82*(6), 1007-1022.

Keyes, C. L. M., Shapiro, A. (2008). Marital status and social well-being: Are the married always better off? *Social Indicators, 88*(2), 329-346.

Keyes, C. L. M., Wissing, M. P., Potgieter, J., Temane, Q. M., Kruger, A., & Van Rooy, S. (2008). Evaluation of the Mental Health Continuum Short Form (MHC-SF) in Setswana speaking South Africans. *Clinical Psychology and Psychotherapy: An international Journal of Theory and Practice, 15,* 181-192.

Keyes, C. L. M., & Lopez, S. J. (2002). Toward a science of mental health: Positive directions in diagnosis and treatment. In C.R Snyder & S. J. Lopez (Eds.), *The handbook of positive psychology* (pp. 45-59), New York, USA: Oxford University Press.

Khramtsova, I., Saarnio, D. ., Gordeeva, T., & Williams, K. (2007). Happiness, life satisfaction, and depression in College students: Relations with student behaviors and attitudes. *American Journal of Psychological Research, 3*(1), 8-16.

Kilonzo, G. P., & Simmons, N. (2005). Development of Mental Health Services in Tanzania: A reappraisal for the future. *Focus on Mental Health Tanzania*. Moshi, Tanzania.

Kim, H. W., Greenberg, J. S., Seltzer, M. M., & Krauss, M. W. (2003). The role of coping in maintaining the psychological well-being of mothers of adults with intellectual disability and mental illness. *Journal of Intellectual Disability Research. 47*(4/5), 313-327.

Knuver, A. W. M., & Brandsma, H. P. (1993). Cognitive and affective outcomes in school effectiveness research. *School Effectiveness and School Improvement, 4,*189-203.

Koenig, H. G., McCullough, M., & Larson D. B. (2001). *Handbook of Religion and Health*. New York, USA: Oxford University Press.

Konu, A. I., & Rimpelä, M. K. (2002). Well-being in schools: a conceptual model. *Health Promot Int, 17*, 79-87.

Konu, I. A., & Lintonen, T. P. (2006). School well-being in Grades 4-12 [Electronic version]. *Health Education Research, 21*(5), 633-642.

Krawczynski, M., & Olszewski, H. (2000). Psychological well-being associated with a physical activity programme for persons over 60 years old. *Psychology of Sports and Exercise. 1*, 57-63.

Kroenke, K., Spitzer, R. L., & William, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Medicine, 16,* 606-613.

Kruger, A., Wissing, M. P., Towers, G. W., & Colleen, D. (2012). Sex differences independent of other psycho-socio-demographic factors as predictor of body mass index in black South African adults. *Journal of Health, Population and Nutrition, 30*(1), 56-65.

Lalor, K., Katabaro, K. J., & McCranna, D. (2006). Childhood sexual abuse among university students in Tanzania. *Child Abuse & Neglect, 30,* 1343-1351

Laureano, C. M. D. (2008). *Development of an experiential learning programme aimed at facilitating coping strategies and well-being of university rugby players.* (Unpublished PhD thesis). North-West University, Potchefstroom Campus: South Africa.

Laureano, C. (2005). The evaluation of a premarital enrichment programme for second marriages. (Unpublished master's thesis), North-West University, Potchefstroom: South Africa.

Littlefield, L., & Hemphill, A. S. (2001). Evaluation of a short-term group therapy programme for children with behaviour problems and their parents. *Behaviour Research and Therapy, 39,* 823-841.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping.* New York, USA: Springer.

Lopez, S. J., Rose, S. J., Robinson, C., Marques, S. C., & Pais-Ribeiro, J. (2007). Measuring and Promoting Hope in School Children. In J. F Michael (Ed.), *Handbook of positive psychology in schools* (pp. 37-49).

Lopez, S. J., Rose, S., Robinson, C., Marques, S. C., & Pais-Ribeiro, J. L. (2009). Measuring and promoting hope in school children. In R. Gilman, E. S. Huebner, & M. J. Furlong (Eds.), *Handbook of positive psychology in the schools* (pp. 37-51). Mahwah, NJ: Lawrence Erlbaum.

LoSciuto, L., Rajala, A. K., Townsend, T. N., & Taylor, A. S. (1996). An Outcome Evaluation of Across Ages: An Intergenerational Mentoring Approach to Drug Prevention. *Journal of Adolescent Research, 11*, 1116-1129.

Lowe, H., & Cooke, A. (2003). Mind the gap: Are students prepared for higher education? *Journal of Further and Higher Education,* 27, 53-76.

Lukens, E., & McFarlane, W. (2004). Psychoeducation as evidence-based practice: Considerations for practice, research and policy. *Journal of Brief Practice & Crisis Intervention, 4,* 205-225.

Luster, T., Bates, L., & Johnson, D. J. (2006). Risk and resilience. In F.A. Villarruel & T. Luster (Eds.), *The Crisis in Youth Mental Health: Disorders in Adolescence Volume Two* (pp. 28-52). Westport, Connecticut: Praeger Publishers.

Magyary, D. (2002). Positive mental health: A turn of the century perspective. *Issues in Mental Health Nursing, 23*(4), 331-349.

Marmash, L. R., & Hamdan-Mansour, A. M. (2007). Psychological well-being and general health of Jordanian University Students. *Journal of Psychosocial Nursing*. *45*(10), 31-39.

Marques de Sa, J. P. (2003). *Applied statistics using SPSS, Statistica and Matlab*. New York, USA: Springer

Marsh, H., Walker, R., & Debus, R. (1991). Subject-specific components of academic self-concept and self-efficacy. *Contemporary Educational Psychology, 16,* 331-345.

Martin, A. J., & Marsh, H. W. (2007). Academic buoyancy: Towards an understanding of students' everyday academic resilience. *Journal of School Psychology, 46,* 1-31

Mbiti, J.S. (1969). *African Religions and Philosophy*. London, England: Heinemann.

McAllister, M., & McKinnon, J. (2009). The importance of teaching and learning resilience in the health disciplines: A critical review of the literature. *Nurse Education Today, 29,* 371-379.

McGrath, H., & Noble, T. (2003). *Bounce back! A classroom resiliency programme for schools. Book 1: The Teacher's Handbook*. Sydney, Australia: Pearson Education.

Meichenbaum, D., & Deffenbacher, J. L. (1998). Stress inoculation training. *The Counseling Psychologist, 1,* 69-90.

Ministry of Science, Technology and High Education. (2004). *Ripoti ya Kamati ya Uchunguzi kwa Umma Kuhusu Vyanzo vya Migomo ya Wanafunzi katika Vyuo vya Elimu ya Juu Nchini Tanzania.* Dar es Salaam, Tanzania. Author.

Ministry of Science, Technology and High Education. (2005). *Basic Statistics on Science, Technology and Higher Education 2000/2001-2004/2005 in Tanzania*. Dar es Salaam, Tanzania. Author.

Morris, J. (1994). Exercise in the prevention of coronary heart disease: Today's best buy in public health. *Medicine and Science in Sports & Exercise, 26,* 807-814.

Myers, D. G. (2000). The funds, friends and faith of happy people. *American Psychologist, 55*, 56-67.

National Bureau of Statistics (2010). *United Republic of Tanzania in Key Statistics*. Retrieved from http://www.nbs.go.tz/index.php?option=com_content&view=article&id=98

Nunnally, J. C. (1978). *Psychometric theory.* (2nd ed.). New York, USA: McGraw Hill.

Olsen, C., & George, D. M. (2004). *Cross-sectional study design and data analysis*. Walden University: Chicago, Illinois, USA.

Osterling, K. L., & Hines, M. A. (2006). Mentoring adolescent foster youth. *Child and Family social Work, 11*, 242-253.

Ozer, E. M., & Bandura, A. (1990). Mechanisms governing empowerment effects: A self-efficacy analysis. *Journal of Personality and Social Psychology, 58,* 472-486.

Paris, S. G., & Byrnes, J. P. (1989). The construct approach to self-regulation and learning in the classroom. In B. Zimmerman & D. Schunk (Eds.), *Self-regulated learning and academic*

achievement: Theory, research and practice (pp. 169-200). New York, USA: Springer-Verlag.

Park, C. L., Folkman, S., & Bostrom, A. (2001). Appraisals of controllability and coping in caregivers and HIV+ men: Testing the goodness-of-fit hypothesis. *Journal of Consulting and Clinical Psychology, 69*(3), 481-488.

Patton, G., Bond, L., Butler, H., & Glover, S. (2003). Changing schools, changing health? Design and implementation of the gatehouse project. *Journal of Adolescent Health, 33,* 231-239.

Penland, E., Masten, W., Zelhart, P., Fournet, G., & Callahan, T. (2000). Possible selves, depression, and coping skills in university students. *Journal of Personality and Individual Differences, 29,* 963-969.

Peterson, C., & Seligman, M. P. (2004). *Character strengths and virtues: A handbook and classification*. New York, USA: Oxford University Press.

Phillips, L. P. (2005). Beyond Well-being. (Unpublished doctorate dissertation). College of Bowling Green State University: OH, USA.

Phongsavan, P., Chey, T., Bauman, A., Brooks, R., & Silove, D. (2006). Social capital, social-economic status and psychological distress among Australian adults. *Social science and medicine, 63,* 2546-2561.

Pisanti, R. (2010). Coping self-efficacy and psychological distress: Results from an Italian study on nurses. *The European Health Psycholigist, 14*(1), 11-14.

Powell, K. E., & Blair, S. (1994). The public health burdens of sedentary living habits: theoretical but realistic estimates. *Medicine and Science in Sports and Exercise, 26,* 851-856.

Read, J. P., Wood, M. D., Davidoff, O. J., McLacken, J., & Campbell, J. F. (2002). Making the transition from high school to college: the role of alcohol-related social influence factors in students' drinking. *Substance Abuse, 23,* 53-65.

Richardson, G. E., Nieger, B. L., Jensen, S., & Kumpfer, K. L. (1990). The resilience model. *Health Education, 21*(6), 33-36.

Richter, R. J. (2002). Correlation of psychological well-being and Christian spiritual wellbeing at a small Christian liberal arts college in the urban Midwest [electronic version]. *CHARIS: A Journal of Faculty Scholarship, 2*(1), 39-46.

Roothman, B., Kirsten, D., & Wissing, M. P. (2003). Gender differences in aspects of psychological well-being. *South African Journal of Psychology, 33* (4), 212-218.

Rose, T. Y. (2010). *Social Integration and Mental Health Promotion: A Study of Black Adolescents*. (Unpublished doctoral dissertation) The Catholic UniversityAmerica: Washington D.C., USA

Rothermund, K. & Brandtstädter, J. (2003). Age stereotypes, self- views, and well-being in laterlife: Evaluating rival assumptions. *International Journal of Behavioural Development, 27,* 549-554.

Ruheni, M. (1973). *The Future Leaders*. Nairobi, Kenya: African Writers Series.

Ruini, C., Belaise, C., Brombin, C., Caffo, E., & Fava, G. A. (2006). Well-being therapy in school settings: a pilot study. *Psychotherapy and Psychosomatics, 75*, 331-336.

Ruini, C., Ottolini, F., Tomba, E., Belaise, C., Albieri, E., Visani, D., Offidani, E., Caffo, E., & Fava, G. A., (2009). School intervention for promoting psychological well-being in adolescence. *Journal of Behavior Therapy and Experimental Psychiatry*, *40*, 522-532.

Rumrill, P.D., & Dimitrov, D.M. (2003). Pretest-posttest designs and measurement of change. *Work, 20*, 159-165.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potential: a review of research on hedonic and eudaimonic wellbeing. *Annual Review of Psychology*, *52*, 141-166.

Ryff, C. D., & Singer, B. H. (1998). The contours of positive human health. *Psychological Inquiry, 9*, 1-28.

Ryff, C. D., Singer, B. H., & Dienberg, L. G. (2004). Positive Health: connecting well-being with biology. *Philosophical Transactions of the Royal Society of London, 359*(1449),1384-1394.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*, 1069-1081.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 64*(4), 719-729.

Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies. 9*, 13-39.

Salami, S. O. (2008) Demographic and psychological factors predicting organizational commitment among industrial workers. *Anthropologist, 10* (1), 31-38

Salomon, G. (1984). Television is "easy" and print is "tough": The differential investments of mental effort in learning as a function of perceptions and attribution. *Journal of Educational Psychology*, *76*, 647-658.

Scheier, M. F., & Carver, C. S. (1985). Optimism, coping and health: Assessment and implications of generalized outcome experiences. *Health Psychology, 4*, 219-249.

Seligman, M. E. P. (1998). *Learned Optimism.* New York, NY, USA: Pocket Books.

Seligman, E. P. M., & Csikszentmihalyi, M. (2000). Positive Psychology: An Introduction. *American Psychologist*, *15* (1), 5-14.

Seligman, E. P. M (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfilment*. New York: Free Press. NY, USA.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology. [Special issue]. *American Psychologist*, *55*(1), 410-421.

Seligman, M. E. P. (1995). *The Optimistic Child.* NSW: Random House. NSW, Australia

Shapiro, A. D. (1996). Explaining psychological distress in a sample of remarried and divorced persons: The influence of economic distress. *Journal of Family Issues, 17*(2), 186-203.

Smith, S., Yeomans, D., Bushe, C. J. P., Erickson, C., Harrison, T., Holmes, R., Mynors-Wallis, L., Oatway, H., & Sullivan, G., (2007). A well-being programme in severe mental illness. Reducing risk for physical ill-health: A post-programme service evaluation at 2 years. *European Psychiatry*, *22,* 413-418.

Snowden, M., Dhingra, S. S., Keyes, C. L. M., & Anderson, L. A., (2010). Changes in mental well-being in the transition to late life: findings from MIDUS I and II. *American Journal of Public Health. 100*(12), 2385-2388.

Snyder, C. R. (1994). *The psychology of hope: You can get there from here*. New York, USA: Free Press.

Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, *13*, 249-275.

Snyder, C. R., Fieldman, D. R., & Shorey, H. S., Rand, K. L. (2002). Hopeful choices: A school counselor's guide to Hope theory. *Professional School Counseling, 5*(5), 298-310.

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., et al. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60,* 570-585.

Snyder, C. R., Irving, L., & Anderson, J. R. (1991). Hope and health: Measuring the will and the ways. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of Social and Clinical Psychology: The Health Perspective* (pp. 285-305). Elmsoford, New York: Pergamon.

Snyder, C. R. (2003). Review of the book: *Flourishing: Positive psychology and the life well-lived*. *Journal of Social and Personal Relationships, 20,* 702-703.

Sports Council/HEA (1992). *Allied Dunbar National Fitness Survey: Main findings*. London: Sports Council and HEA.

Stewart, M., Reid, G., & Mangham, C., (1997). Fostering Children's Resilience. *Journal of Paediatric Nursing, 12* (1), 21-31.

Strentz, T., & Auerbach, S. M. (1988). Adjustment to the stress of simulated captivity: Effects of emotion-focused versus problem-focused preparation on hostages differing in locus of control. *Journal of Personality and Social Psychology, 55*(4), 652-660.

Tanzania. Ministry of Science, Technology and High Education. (2004). *Ripoti ya Kamati ya Uchunguzi kwa Umma Kuhusu Vyanzo vya Migomo ya Wanafunzi katika Vyuo vya Elimu ya Juu Nchini Tanzania.* Dar es Salaam: Tanzania.

Tanzania. Ministry of Science, Technology and High Education. (2005). *Basic Statistics on Science, Technology and Higher Education 2000/2001-2004/2005 in Tanzania*. Dar es Salaam: Tanzania.

Taylor, S. E., & Stanton, A. L. (2007). Coping resources, coping processes, and mental health. *Annual Review of Clinical Psychology, 3,* 377-*401*.

Terry, P. E., Mhloyi, M., Masvaure, T., & Adlis, S. (2006). An examination of knowledge, attitudes and practices related to HIV/AIDS prevention in Zimbabwean university students: Comparing intervention programme participants and non-participants. *International Journal of Infectious Diseases, 10,* 38-46.

Tierney, J. P., & Grossman, J. B. (1995). *Making A Difference: An Impact Study of Big Brothers/Big Sisters*. Philadelphia: Public/Private Ventures.

Thompson, R. J., Mata, J., Jaeggi, S., Buschkuehl, M., Jonides, J., & Gotlib, I. H. (2010). Maladaptive responses to stress, adaptive coping, and depressive symptoms: Variations across age and depressive state. *Behaviour Research and Therapy*, *48*, 459-466.

Utsey, S. O., Hook, J. N., Belvet, B., & Fischer, N. (2008). Influence of cultural orientation, ego resilience, and optimism on the subjective well-being of African Americans. *Journal of Positive Psychology*. *3*(3), 202-210.

Van Schalkwyk, I. (2009). *Flourishing in a group of South African adolescents*. (Unpublished doctoral Thesis).North-West University, Potchefstroom campus: South Africa.

Van Velden, D. P. (2005). Positive lifestyle interventions: The key to whole-person wellness. *CME, 23* (6), 294-298.

Vleioras, G., & Bosma, H. A. (2005). Are identity styles important for psychological well-being? *Journal of Adolescence, 28*, 379-409.

Walker, C. J. (2009, August). *A Longitudinal Study on the Psychological Well-Being of College Students.* Research presented at the 117th convention of the American Psychological Association. Toronto, Ontario, Canada

Walsh, R. (2011). Lifestyle and Mental Health. *American Psychologist*. Advance online publication. doi: 10.1037/a0021769.

Waterman, A. S. (1993). Two conceptions of happiness: contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology, 64*, 678-691.

Waterman, A. S. (2007). On the importance of distinguishing hedonia and eudaimonia when considering the hedonic treadmill. *American Psychologist, 62*, 612-613.

Waterman, A. S., Schwartz, S. J., & Conti, R. (2008). The implications of two conceptions of happiness (hedonic enjoyment and eudaimonia) for the understanding of intrinsic motivation. *Journal of Happiness Studies, 9*, 41-79.

Widom, C. S., Czaja, J., & DuMont, K. A. (2007). Predictors of resilience in abused and neglected children grown-up: The role of individual and neighbourhood characteristics. *Child Abuse & Neglect, 31*, 255-274.

Winfield, L. F. (1994). *Developing resilience in urban youth.* Urban Monograph Series. Oak Brook, IL: North Central Regional Educational Laboratory.

Wissing, J. A. B. (2006). *Psychological Well-being in cultural context: Measurement, Patterns and Relevance for Practice*. (Unpublished doctoral thesis): North-West University, Potchefstroom campus: South Africa.

Wissing, J. A. B., Wissing, M. P., Du Toit, M. M., & Temane, Q. M. (2008). Psychometric properties of various scales measuring psychological well-being in a South African context: The FORT 1 Project. *Journal of Psychology in Africa, 18*(4), 511-520.

Wissing, M. P., Temane, M., Khumalo, T., Kruger, A., & Vorster, E. (2010, June). *Urbanization ad psychosocial wellbeing: the case of rural versus urban health.* Paper at the 5th European Conference on Positive Psychology, Copenhagen, Denmark.

Wissing, M. P., Khumalo, I. T., Oosthuizen, C. M., Nienaber, A. W., Kruger, A., Potgieter, J. C. & Temane Q. M. (2011). Coping self-efficacy as mediator in the dynamics of psychological well-being in various contexts. *Journal of Psychology in Africa*, *21*(2), 165-172.

Wissing, M. P., Potgieter, J. P., Temane, Q. M., Oosthuizen, C. M., Nienaber, A., Van Rooy, S. Combrinck, I., Van Wyk, M., & Kruger, A. (2008, July). *Levels of psychological well-being: Prevalence, concomitants and challenges in theory and practice*. 4th European Conference on Positive Psychology, Opatje/ Rijeka, Croatia.

Wissing, M. P., & Van Eeden, C. (2002). Empirical clarification of the nature of psychological well-being. *South African Journal of Psychology, 32,* 32-44.

World Health Organization (1986). *Ottawa Charter for Health Promotion.* , Copenhagen, Denmark: World Health Organization.

Wright, S., Courtney, U., & Crowther, D. (2002). A quantitative and qualitative pilot study of the perceived benefits of autogenic training for a group of people with cancer. *European Journal of Cancer Care, 11*(2), 122-130.

Xu, J., Roberts, E. R. (2010). The Power of Positive Emotions: It's a Matter of Life or Death – Subjective Well-Being and Longevity over 28 years in a General Population. *Health Psychology, 29*(1), 9-19.

Yazdanbakhsh, M., Kremsner, P. G., & van Ree, R. (2002). Allergy, parasites, and the hygiene hypothesis. *Science*, *296*, 490-494.

Zika, S., Chamberlain, K. (1992). On the relationship between meaning in life and psychological well-being. *British Journal of Psychology*, *83*(1), 133-45.