

**PSYCHOLOGICAL WELL-BEING IN CULTURAL
CONTEXT: MEASUREMENT, PATTERNS AND
RELEVANCE FOR PRACTICE**

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M.A. (Clinical Psychology)

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Summary

Psychological well-being in cultural context:

Measurement, patterns and relevance for practice

Key words: psychological well-being; measures; psychometric properties; patterns; satisfaction with life; cultural context; collectivism; individualism; positive psychology; psychofortology; practical relevance; application in practice.

This study, presented in article format, contributed to the development of the science and practice of positive psychology / psychofortology, specifically in the South African multi-cultural context, through (i) a first phase exploration of the validity of several scales, mainly developed in a ‘western’ context, for applicability of measurement of facets of psychological well-being in the South African (multi-cultural) context (manuscript 1), (ii) an exploration of patterns of psychological well-being and satisfaction with life in cultural context (manuscript 2), and (iii) a review of the state of the art of the applicability of knowledge (theory and experimental findings) from the domain of positive psychology, for use in practice to enhance the quality of life for people (manuscript 3). For purposes of this study “cultural context” referred to relatively individualist and relatively collectivist cultural orientations as manifested in shared patterns of behavioural readiness, assumptions, attitudes, beliefs, self-definitions, norms, values, historical background and language groupings.

The aim of the first study / article was to do a first phase screening of psychometric properties of several scales measuring facets of psychological well-being in a South African context. Most of these scales were developed in a western context, and measure facets of cognitive, affective, conative, social, and spiritual psychological well-being. Data were gathered in two projects including 731 participants from different cultural contexts in the North West Province. The FORT-project (FORT = Clarifying the nature of psychological strengths; forte=strength) included a convenience sample of 384 mainly white students and adults from the

Potchefstroom area, and a convenience sample of 130 mainly black students from the Mafikeng area. The POWIRS-project (POWIRS = Profiles of Obese Women with the Insulin Resistance Syndrome) included 102 black and 115 white adult women. Reliability and validity of scales for use in a South African context were reported. Results indicated that the reliability and validity of scales varied from acceptable to totally unacceptable for use in specific subgroups. It was concluded that the most promising scales for use in all groups were the Affectometer 2 (AFM), the Fortitude Questionnaire (FORQ) (except the FORQ-S), the Cognitive Appraisal Questionnaire (CAQ), the Satisfaction with Life Scale (SWLS) the General Health Questionnaire (GHQ) (the latter measuring pathology), and to some extent the Sense of Coherence Scale (SOC).

This second study / article explored the patterns of psychological well-being and satisfaction with life in relatively more individualist and relatively more collectivist cultural contexts in South Africa. Secondary factor analyses were conducted on data obtained in four cross-sectional studies, comprising 1,909 participants. Questionnaires varied in studies, and measured facets of affective, cognitive, physical, spiritual, interpersonal and social well-being. Similarities and differences in patterns of psychological well-being and satisfaction with life were found. Satisfaction with life clusters with intra-psychological well-being in relatively more individualist cultural groups, and with inter-personal factors in relatively more collectivist African groups. Implications for models of psychological well-being and interventions to enhance psychological well-being were indicated.

The aim of the third study / article was to review and evaluate the practical applicability of scientific knowledge from the domain of positive psychology /psychofortology, with specific reference to assessment, interventions, lifespan development and application in various contexts. It was shown that knowledge in the scientific domain of positive psychology has great relevance for, and application possibilities on individual, community and public policy levels. Applications were found as far as evaluation (assessment) and interventions are concerned in various life contexts (such as education, psychotherapy, health promotion, work), and in various phases of life (from childhood through adolescence and adulthood to old age). Several specific, empirically validated, strategies for enhancement of facets of psychological

well-being were highlighted. It was pointed out that an advantage of positive psychology is that it has the theory, research evidence, and techniques to bring benefit to many people on the total mental health continuum, and not only, but also, to the minority who have a problem or are at risk of developing problems.

A main conclusion across the different studies reported in this thesis (articles 1-3), was that cultural contexts and variables certainly need to be taken into account in research and practice of positive psychology. Despite the major developments in the scientific domain of positive psychology / psychofortology, its theories and applications have mainly been developed and explored in a western context, and further research is necessary, specifically in the African context. Several recommendations for future research were made.

Opsomming

Psigiese welsyn in kulturele konteks:

Meting, patrone en relevansie vir die praktyk

Sleutelwoorde: psigiese welstand / welsyn; meting; psigometriese kenmerke; patrone; lewenssatisfaksie; kulturele konteks; kollektivisme; individualisme; positiewe sielkunde; psigofortologie; relevansie vir die praktyk; toepasbaarheid in praktyk.

Met hierdie studie, wat in artikelformaat aangebied is, is 'n bydrae gelewer tot die ontwikkeling van die wetenskap en praktyk van positiewe psigologie / psigofortologie, spesifiek in die Suid-Afrikaanse multikulturele konteks, deur (i) 'n eerstefaseondersoek oor die geldigheid van 'n aantal skale, wat hoofsaaklik in 'n "westerse" konteks ontwikkel is, met die oog op die moontlike gebruik daarvan vir die meting van fasette van psigiese welstand in die Suid-Afrikaanse (multikulturele) konteks (manuskrip 1); (ii) 'n ondersoek oor die patrone van psigiese welstand en lewenstevredenheid binne kulturele konteks (manuskrip 2); en (iii) 'n literatuuroorsig en –evaluering van die huidige stand van kennis (teoreties en eksperimenteel) in die wetenskapsdomein van positiewe sielkunde / psigologie vir bruikbaarheid in die praktyk met die oog op die verhoging van mense se lewenskwaliteit (manuskrip 3). Vir die doeleindes van hierdie studie verwys "kulturele konteks" na die relatiewe individualistiese en die relatiewe kollektivistiese kulturele oriëntasies, soos gemanifesteer in gedeelde patrone van gedragsgereedheid, aannames, houdings, geloofsteme, selfdefiniërings, norme, waardes, historiese agtergrond en taalgroeperings.

Die doelstelling van die eerste artikel was om 'n eerstefaseondersoek te doen oor die psigometriese eienskappe van 'n verskeie skale wat gebruik word om aspekte van psigiese welstand in 'n Suid-Afrikaanse konteks te meet. Hierdie skale is meestal in 'n

“westerse” konteks ontwikkel. Dit meet aspekte van kognitiewe, affektiewe, konatiewe, sosiale en spirituele psigiese welstand. Data is versamel in twee projekte, en het 731 deelnemers ingesluit, afkomstig van verskillende kulturele kontekste in die Noordwes-Provinsie. The FORT-projek (FORT = Die verheldering van die aard van psigiese sterktes; Lat. *forte* = *sterkte*), het bestaan uit 'n gerieflikheidsteekproef van 384, hoofsaaklik wit, studente en volwassenes uit die Potchefstroom-omgewing, en 'n gerieflikheidsteekproef van 130, hoofsaaklik swart, studente uit die Mafikeng-area. Die POWIRS-projek (POWIRS = Profiles of Obese Women with the Insulin Resistance Syndrome) het 102 swart en 115 wit volwasse vroue ingesluit. Die betroubaarheid en geldigheid van die skale vir gebruik in die Suid-Afrikaanse konteks, is gerapporteer. Die resultate het aangedui dat die betroubaarheid en geldigheid van die skale varieer van aanvaarbaar tot totaal onaanvaarbaar vir gebruik in spesifieke subgroepe. Die gevolgtrekking was dat die mees belowende skale vir die gebruik in al die groepe die volgende is: die Affectometer 2 (AFM), die Fortitude Questionnaire (FORQ) (uitgesonderd die FORQ-S), die Cognitive Appraisal Questionnaire (CAQ), die Satisfaction with Life Scale (SWLS), die General Health Questionnaire (GHQ) (laasgenoemde meet patologie), en tot 'n mate die Sense of Coherence Scale (SOC).

In die tweede artikel is die patrone van psigiese welstand en lewensvrede in 'n relatief meer individualistiese en 'n relatief meer kollektivistiese kulturele konteks in Suid-Afrika, ondersoek. Sekondêre faktorontledings is gedoen op data wat verkry is uit vier studies wat altesaam 1909 deelnemers ingesluit het. Al vier projekte was dwarsdeursnitopnameontwerpstudies. Vraelyste het per projek gewissel, en het fasette van kognitiewe, affektiewe, konatiewe, fisieke, spirituele, interpersoonlike en sosiale welstand gemeet. Implikasies van die bevindinge vir teoretiese modelle van psigiese welstand, en vir intervensies ter bevordering van psigiese welstand, is aangedui.

In die derde artikel is 'n oorsig en evaluering gegee van die praktiese bruikbaarheid van wetenskaplike kennis uit die domein van positiewe sielkunde / psigofortologie, met spesifieke verwysing na assessering, intervensies, lewensspanontwikkeling en toepassing in verskillende kontekste. Dit is aangedui dat kennis vanuit die domein van positiewe psigologie as wetenskap, groot relevansie en

toepassingsmoontlikhede het op van individuele en gemeenskapsvlakke, asook vir openbare gesondheidsbeleid. Toepassingsmoontlikhede vir assesserings en intervensies bestaan in verskeie lewenskontekste (bv. opvoeding, psigoterapie, gesondheidsbevordering en werkskontekste), en in verskeie lewensfasies (vanaf kindertyd, deur adolessensie en volwassenheid, tot by bejaardheid). Verskeie spesifieke, empiries gevalideerde strategieë vir die bevordering van aspekte van psigiese welstand is uitgelig. Dit is aangedui dat die besondere waarde van positiewe psigologie daarin lê dat dit die teorieë, navorsingsbewyse en tegnieke het om vir baie mense, op die hele geestesgesondheidskontinuum, tot nut te wees, en nie net vir die minderheid wat probleme ervaar, of wat die gevaar staan om probleme te ontwikkel nie.

‘n Hoofgevolgtrekking waartoe gekom is op grond van die drie studies wat hier gerapporteer is, is dat kulturele kontekste en veranderlikes deegliker in berekening gebring moet word in sowel die teorie as die praktyk van positiewe psigologie as wat tot dusver die geval was. Ten spyte van die belangrike ontwikkelinge in die domein van positiewe psigologie /psigofortologie, is teorie en toepassings hoofsaaklik in ‘n westerse konteks ontwikkel en ondersoek, en verdere navorsing is noodsaaklik, veral in die Afrikakonteks. Verskeie aanbevelings vir verdere navorsing is gemaak.

Preface

- This thesis is submitted in article format as described in rules A.14.4.2, and A13.7.3, A13.7.4, A17.7.5 of the North-West University.
- The three manuscripts comprising this thesis were submitted for review to *The South African Journal of Psychology* (SAJP) (manuscripts 1 and 3) and the peer reviewed *Conference proceedings* of the Second European Conference on Positive Psychology, Verbania Pallanza, Italy (second manuscript). The latter has been accepted and published as the first chapter in the internationally published book by A. Delle Fave (Ed.), *Dimensions of well-being: Research and intervention* (pp. 14-33). Milano: Franco Angeli. Manuscripts 1 and 3 are currently under review.
- The referencing style and editorial approach for this thesis is in line with the prescriptions of the *Publication Manual* (5th edition) of the American Psychological Association (APA), except where the requirements of the *South African Journal of Psychology* or the publisher of the above-mentioned book (Franco Angeli), differed in the case of the specific manuscripts.
- For purposes of this thesis, the page numbering of the thesis as a whole is consecutive. However, each individual manuscript was numbered starting from page 1 for submission purposes.
- Attached, please find the letter signed by the co-authors authorising the use of these articles for purposes of submission for a Ph.D. degree.

Letter of Permission

Permission is hereby granted by co-authors that the following manuscripts may be submitted by

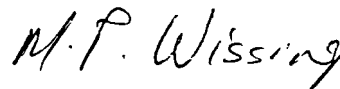
J. A. B. Wissing for the purpose of obtaining a PhD degree in Psychology:

1. Psychometric properties of various scales measuring psychological well-being in a South African context: The FORT and POWIRS projects
2. Patterns of psychological well-being and satisfaction with life in cultural context
3. A review of the practical applicability of knowledge from positive psychology / psychofortology.

The roles of the co-authors were as follows: Dr. M. M. du Toit and Prof. M. P. Wissing acted as promoter and co-promoter respectively. Dr. Q. M. Temane supervised data collection for some of the sub-groups and assisted in the interpretation of some of the data.



Dr. M. M. du Toit



Prof. M. P. Wissing



Dr. Q. M. Temane

PSYCHOLOGICAL WELL-BEING IN CULTURAL CONTEXT: MEASUREMENT, PATTERNS AND RELEVANCE FOR PRACTICE

SECTION 1: INTRODUCTION

The theme of this study is the measurement, possible patterns, and evidence for enhancement of psychological well-being in practice, with specific reference to the South African multi-cultural context. For purposes of this study “cultural context” refers to relatively more individualist and relatively more collectivist cultural orientation as described below (see manuscript 2 for details).

For decades there have been references to facets of psychological well-being or human strengths, (e.g. Antonovsky, 1979; Jahoda, 1958; Schultz, 1977; Walsh & Shapiro, 1983), but about a decade ago empirical research and theorising on the nature and dynamics of (psychological) well-being took a great step forward. Since 1998 the broad research programme on positive psychology facilitated by Seligman, Csikszentmihalyi, Peterson and colleagues, has been exploring various facets of positive subjective experiences, positive traits and positive institutions (Seligman & Csikszentmihalyi, 2000; Seligman & Peterson, 2003; 2004) resulting in many publications in a broad range of journals, and several handbooks (eg. Aspinwall & Staudinger, 2003; Joseph & Linley, 2006; Keyes, & Haidt, 2003; Linley & Joseph, 2004; Lopez & Snyder, 2003; Ong & Van Dulmen, 2006; Seligman & Csikszentmihalyi 2000; Seligman, Steen, Park. & Peterson, 2005; Snyder & Lopez, 2002). Positive Psychology has been defined as the scientific study of optimal human functioning. It aims to discover and promote the factors that allow individuals and communities to thrive (Seligman, 1998; 2002a). At the same time Wissing and Van Eeden (1997) named a newly developing domain of research in South Africa “Psychofortology” and defined it as the scientific study of the nature, manifestations, patterns, origins, dynamics, and enhancement of strengths on individual, group and community levels (Wissing & Van Eeden, 1997; 2002). As it turned out the independently developed conceptualisations of psychofortology and positive

psychology overlap to a great extent, and refer to the same domain of scientific study and application.

In recent times several specific theories have been developed in the domain of positive psychology (mainly from a western, more individualist perspective), to conceptualise facets of psychological well-being, for example the Broaden and Build model of Positive Emotion of Fredrickson (2001), the Hope model of Snyder (2000), while others combine facets such as in the cognitive model of Lightsey (1996) or the Self Determination Theory of Ryan and Deci (Deci & Ryan, 2000; Ryan & Deci, 2001). Some holistic models have been proposed to conceptualise the nature and dynamics of psychological well-being (e.g. Adams *et al.*, 1997; Crose *et al.*, 1992; Kumpfer, 1999; Richardson, 2002; Ryff, 1995; Witmer & Sweeney, 1992), but no general agreement exists on a coherent theoretical framework for the description, explanation or prediction of psychological well-being. Increasingly more reference is made to the importance of cultural variables, but very little research thus far has taken cultural context into account in empirical studies on facets of psychological well-being. Many cognitive, affective, behavioural and interpersonal facets of psychological well-being have been identified in recent times, and are the subject of intensive research (e.g. Aspinwall & Staudinger, 2003; Keyes, & Haidt, 2003; Seligman & Csikszentmihalyi, 2000; Snyder & Lopez, 2002, Lopez & Snyder, 2003). Although many phenomena, such as sense of coherence, satisfaction with life, optimism, self-efficacy, emotional intelligence, constructive thinking, gratitude, positive emotions, wisdom, spirituality, self-efficacy, flow, hope, fortitude, coping, etc. are being described as capturing essential facets of psychological well-being or processes involved, it is not clear to what degree these phenomena may overlap on an empirical level or combine in patterns of well-being, whether scales measuring these facets are reliable and valid measures in the South African context, and whether broad cultural orientations as found in South Africa may influence the manifestations and patterns of psychological well-being. Constantine and Sue (2006) strongly argued that existing conceptualisations of optimal human functioning / psychological well-being were mainly developed from a Eurocentric perspective, and that these conceptualisations may have limited applicability for people of colour in the United States. This argument may even apply more so in the case of South Africa. Constantine and Sue (2006) expressed great concern about definitions of optimal human functioning without considering specific cultural issues and variables. Frazier, Lee and Steger (2006) indicated that the vital role of

race, ethnicity, and culture in the understanding and facilitation of optimal human functioning is a neglected area of research in the emerging field of positive psychology.

In view of the great progress that has been made in the conceptualisation of facets of psychological well-being (e.g. Aspinwall & Staudinger, 2003; Keyes, & Haidt, 2003; Seligman & Csikszentmihalyi, 2000; Snyder & Lopez, 2002), the next step should be the development of sound measuring instruments (Lopez & Snyder, 2003). Lopez and Snyder (2003) edited the first handbook on positive psychological assessment, and indicated the importance of developing and evaluating various measures of strengths and wellness in order to create a greater balance in the field of psychology that has thus far focused mainly on measurement of weaknesses and psychopathology. Additionally, Floris and Obasi (2003) as well as Constantine and Sue (2006) stressed the importance of taking cultural context into account in assessments of positive psychological functions. Measures developed and normed in one cultural context cannot be assumed to be equally valid in another cultural context (Bedell, Van Eeden & Van Staden, 1999; Foxcroft & Roodt, 2001; Paunonen & Ashton, 1998; Van de Vijver & Leung, 1997). Various measures of facets of positive psychological functioning have already been developed, but very few have been cross-culturally validated, and especially so for research and application in the South African context. The current study seeks to fill this gap by a first-phase screening validation of various scales measuring facets of positive psychological functioning in a South African context (manuscript 1). In this study the psychometric properties were explored for several scales completed by South African groups of participants, some of whom were from a traditionally relatively more individualist (white) cultural background, and others from a traditionally relatively more collectivist (black) cultural background. Allik and McCrae (2004) indicated on basis of empirical findings that white South Africans are more individualist, and black South Africans more collectivist in cultural orientation. This distinction was then also assumed for purposes of this study (cultural orientation is not measured as a dependent variable). It has, however, also been assumed that individualist and collectivist cultural values may overlap or co-exist for some people, particularly black people, in the South African context.

It has been argued that contextual factors may influence the manifestation of psychological functioning and well-being (Christopher, 1999; Diener & Suh, 2000; Floris & Obasi, 2003; Ryan & Deci, 2001; Suh, Diener, Oishi & Triandis, 1998; Tsai, Knutson & Fung, 2006), but the manifestation and patterns of expression of psychological well-being in various cultural contexts

need further clarification (Constantine & Sue, 2006; Diener, Oishi, & Lucas, 2003), especially so in the South African context. In cross-cultural comparisons of facets of psychological well-being, results are sometimes compared on national bases (e.g. Suh, Diener, Oishi & Triandis, 1998), or in terms of a comparison of western / individualist findings versus East Asian / collectivist findings. However, in some nations as the South African “rainbow nation” (as described by Nelson Mandela) multiple cultural contexts still exist next to, and overlapping with each other in one country, in which case combination of data may perhaps ignore confounding variables. In the literature, two broad categories of cultural orientations were distinguished, namely an individualist, typical western orientation, and a collectivist cultural orientation (Christopher, 1999; Suh, Diener, Oishi & Triandis, 1998; Diener & Sue, 2000). These cultural orientations and their associated worldviews seem to be found in the African context also, as described by Bodibe and Sodi (1997), Direko (2002), Ebigbo, Oluka, Ezenwa, Obidigo and Okwaraji, (1996). It can, however, not be assumed that the African version of ‘collectivism’ is identical to the typical collectivist orientation described in an Asian context – this facet needs further exploration. Although individualist and collectivist cultural contexts can be distinguished within South Africa, there is of course also great variability within these contexts on an individual level. With urbanisation and development of higher socio-economic status there is also a tendency for Black people to develop in some instances a relatively more individualistic value system. Blending of cultural practices is also taking place. Therefore the distinction between individualist and collectivist cultural contexts is viewed, for purposes of this study, as real, but at the same time as relative, rather than absolute. No research could be found that compared individualist and African collectivist manifestations of psychological well-being. Manuscript 2 of this thesis reports on the exploration of patterns of psychological well-being in a South African context.

With new empirical findings and the development of many new constructs and theories (e.g. Aspinwall & Staudinger, 2003; Keyes & Haidt, 2003; Peterson & Seligman, 2004; Snyder & Lopez, 2002) the question arises as to what the scientifically based applicability of these findings and models may be for prevention of problems, and the enhancement of the quality of life for the psychological health and well-being of individuals, groups and organisations. Zeldin (2000) noted the strong push for research to be more socially relevant, for practice to be based on sound research, and for researchers and practitioners to work more closely together. Much research, with accompanying theories, in Psychology has academic utility only, and does not, in practice, succeed

at improving the quality of lives of people. In 2002 Keyes and Lopez argued that the utility of a positive approach for the diagnosis and treatment of mental illnesses has not yet been realised (Keyes & Lopez, 2002), but recently the first handbook on positive psychology in practice has been published by Linley and Joseph (2004), referring to several fields of application. However, in 2006 Lopez *et al.* again call for a stronger focus on positive facets of human functioning in research and practice. Apart from the book by Linley and Joseph mentioned above, very little has been done with regard to the integration and evaluation of information on the applicability of positive psychology notions in practice. From the beginning of positive psychology, a strong stance was taken that the practice of positive psychology should be scientific and evidence based, which is different from the practice of popular psychology (Seligman & Csikszentmihalyi, 2000). With all the new developments in positive psychology the time now seems ripe for more attention to the application in practice. As information on applicability is scattered in the literature this study aims to contribute to integration and evaluation of existing information through a review of the state of the art. In manuscript 3 the practical applicability of knowledge from the domain of positive psychology /psychofortology is evaluated in an in-depth literature review, with specific reference to assessment, interventions, life-span development and application in various contexts.

With this thesis a contribution is made to the development of the science and practice of positive psychology / psychofortology, specifically in the South African context, through (i) a first-phase exploration of the validity of several scales, mainly developed in a 'western' context, for applicability in measurement of positive facets of human functioning in the South African (multi-cultural) context (manuscript 1), (ii) an exploration of patterns of psychological well-being and satisfaction with life in cultural context (manuscript 2), and (iii) a review of the state of the art of the applicability of knowledge (theory and experimental findings) from the domain of positive psychology, in practice (manuscript 3).

This thesis is presented in article format, and comprises three manuscripts that will be presented consecutively together with guidelines for authors (where applicable) in sections 2-4.

The aim of the first article (section 2) was to conduct a first-phase screening of psychometric properties of several scales measuring facets of psychological well-being in a South African context. These scales were mainly developed in a western context, and measure facets of cognitive, affective, conative, social, and spiritual psychological well-being. Data were gathered as part of the FORT

(FORT = Clarifying the nature of psychological strengths; forte=strength) and POWIRS (POWIRS = Profiles of Obese Women with the Insulin Resistance Syndrome) projects, including participants from relatively individualist and relatively collectivist cultural contexts in the North West Province of South Africa. Reliability and validity indices for scales as obtained for these specific groups of participants are reported.

The aim of the second article / chapter (section 3) was to explore the patterns of psychological well-being and satisfaction with life in relatively more individualist vs. relatively more collectivist cultural contexts in South Africa. Secondary factor analyses were conducted on data obtained in four cross-sectional studies, comprising 1,909 participants. Questionnaires varied in studies, and measured facets of affective, cognitive, physical, spiritual, interpersonal and social well-being. Similarities and differences in patterns of psychological well-being and satisfaction with life are reported.

In this paper the applicability of knowledge from the domain of positive psychology /psychofortology was evaluated with specific reference to assessment, interventions, life-span development and application in various contexts.

The aim of the third study / article (section 4) was to review and evaluate the practical applicability of scientific knowledge from the domain of positive psychology /psychofortology with specific reference to assessment, interventions, life-span development and application in various contexts. It has been shown that major developments in this regard took place mainly in the past five years, and that a whole new domain of scientifically based practice possibilities is opening up. Findings are reported with regard to developments in assessment, interventions, applicability over the life-span, in various contexts, and on individual, community and public policy levels. Some specific, empirically validated, strategies are highlighted, and recommendations for further research indicated.

In a final section (section 5) the main findings are summarised, implications indicated, and some recommendations made for further research.

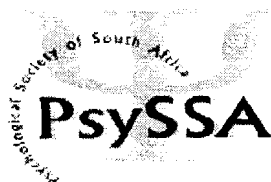
SECTION 2: ARTICLE 1

**PSYCHOMETRIC PROPERTIES OF SOME SCALES MEASURING PSYCHOLOGICAL
WELL-BEING IN A SOUTH AFRICAN CONTEXT: THE FORT AND POWIRS
PROJECTS**

Submitted to the

South African Journal of Psychology

2.1 Guidelines for authors: *South African Journal of Psychology*



South African Journal of Psychology

Instructions to authors

Submitting a manuscript

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

Manuscript structure

- The manuscript should be no longer than 30 pages and no shorter than 10 pages.
- **First page:** The full title of the manuscript, the name(s) of the author(s) together with their affiliations, and the name, address, and e-mail address of the author to whom correspondence should be sent.
- **Second page:** The abstract, formatted as a single paragraph, and no longer than 300 words. A list of at least six key words should be provided below the abstract, with semi-colons between words.
- **Subsequent pages:** The text of the article. The introduction to the article does not require a heading.
- **Concluding pages:** A reference list, followed by tables and figures (if any). Each table or figure should be on a separate page. Tables and figures should be numbered consecutively and their appropriate positions in the text indicated. Each table or figure should be provided with a title (e.g., Figure 1. Frequency distribution of critical incidents). The title should be placed at the top for tables and at the bottom for figures.

Manuscript format

- The manuscript should be an MS Word document in 12-point Times Roman font with 1.5 line spacing. There should be no font changes, margin changes, hanging indents, or other unnecessarily complex formatting codes.
- American Psychological Association (APA) style guidelines and referencing format should be adhered to.
- Headings should start at the left margin, and should not be numbered. All headings should be in **bold**. Main headings should be in **CAPITAL LETTERS**.
- A line should be left open between paragraphs. The first line of a paragraph should not be indented.
- Use indents only for block quotes.
- In the reference list, a line should be left open above each reference. Do not use indents or hanging indents in the reference list.

Language

Manuscripts should be written in English. As the SAJP does not employ a full-time or dedicated language editor, authors are requested to send their manuscripts to an external language specialist for language editing before submission.

2.2. Manuscript: Psychometric properties of some scales measuring psychological well-being in a South African context: the FORT and POWIRS projects

**PSYCHOMETRIC PROPERTIES OF VARIOUS SCALES MEASURING
PSYCHOLOGICAL WELL-BEING IN A SOUTH AFRICAN CONTEXT:
THE FORT AND POWIRS PROJECTS**

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ABSTRACT

The aim of this study was to do a first phase screening of psychometric properties of several scales measuring facets of psychological well-being in a South African context. Almost all of these scales were developed in a western context, and measure facets of cognitive, affective, conative, social, and spiritual psychological well-being. Data were gathered in two projects including participants (N=731) from different cultural contexts in the North West Province. The FORT-project (FORT = Clarifying the nature of psychological strengths; forte=strength) included a convenience sample (n=384) of mainly white students and adults from the Potchefstroom area, and a convenience sample (n=130) of mainly black students from the Mafikeng area. The POWIRS-project (POWIRS = Profiles of Obese Women with the Insulin Resistance Syndrome) included black (n=102) and white (n=115) adult women. Reliability and validity of scales for use in a South African context are reported. The reliability and validity of scales varied from acceptable to totally unacceptable for use in specific subgroups.

Key words: psychological well-being; measurement; scales; psychometric properties; reliability; validity; South African context.

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In the field of Positive Psychology that focuses on strengths and psychological well-being (Aspinwall & Staudinger, 2003; Keyes, & Haidt, 2003; Seligman & Csikszentmihalyi, 2000; Snyder & Lopez 2002), the urge is now towards the development of sound measuring instruments (Lopez & Snyder, 2003). Lopez and Snyder (2003) edited the first handbook on positive psychological assessment, and indicate the importance of developing and evaluating various measures of strengths and wellness in order to create a greater balance in the field of psychology that has thus far focused mainly on measurement of weaknesses and psychopathology. Simultaneously Floris and Obasi (2003) indicated the importance of taking cultural context into account in doing assessment of positive psychological functions. Measures developed and normed in one cultural context cannot be assumed to be equally valid in another cultural context (Bedell, Van Eeden & Van Staden, 1999; Foxcroft & Roodt, 2001; Paunonen & Ashton, 1998; Van de Vijver & Leung, 1997). Various measures of facets of positive psychological functioning has already been developed, but very few have been cross-culturally validated, and especially so for research and application in the South African context.

The current study seeks to fill this gap by a first phase screening validation of various scales measuring facets of positive psychological functioning in a South African context. The included scales measure aspects of cognitive, emotional, interpersonal, social and spiritual functioning. These facets are typically included in holistic models of psychological well-being (e.g. Adams, Bezner, & Steinhardt, 1997; Baker & Intagliata, 1982; Crose, Nicholas, Gobble & Frank, 1992; Witmer & Sweeney, 1992) or conceptualized and operationalised separately as important components of psychological well-being (e.g. Fredrickson, 2001; Ryan & Deci, 2001; Snyder, 2000; Wissing & Van Eeden, 2002). Cognitive, emotional, interpersonal and spiritual components can also be noted in the heuristic classification of measuring approaches in positive psychology distinguished by Lopez and Snyder (2003), and can be deducted from strengths included in the Virtue in Action

Inventory of Strengths (VIA-IS) (Peterson & Seligman, 2004). Seemingly lacking in many of the above mentioned holistic models of wellness is a conative facet. It may, however, be that measures such as the hope scale of Snyder et al. (1991), and the self-efficacy scale of Schwartz and others (1993; 1997; 2003) tap into a motivational / conative component.

Many existing scales measuring facets of psychological well-being are currently being introduced in South African research and practice (e.g. Botha, 2006; Guse & Wissing, 2006; Peters, 2005; Rothmann & Storm, 2003; Strümpfer & Wissing, 1998; Wissing et al., 1999; Wissing & Van Eeden, 2002), and a great need exists for more information on applicability of these and other scales measuring psychological well-being in various cultural contexts, and on their psychometric properties. The current study is a first phase scrutinizing of scales, and should be followed up with more in depth psychometric analyses of promising scales. According to Paunonen and Ashton (1998) invariance in the following psychometric properties may reflect cross-cultural applicability: (i) scale means and variances, (ii) reliabilities, (iii) factor structure, and (iv) pattern of correlations with other variables (criterion-related validity; convergent and discriminant validity). In this study these psychometric properties are explored for several scales completed by South African groups of participants of whom some are from a traditionally relatively more individualist (white) cultural background, and others from a traditionally relatively more collectivist (black) cultural background. The rationale for this approach is that previous descriptions and empirical findings indicated that the broad categories of individualist and collectivist cultural orientations with their associated worldviews can be distinguished (Suh, Diener, Oishi & Triandis, 1998), probably exist in the South African context (Bodibe & Sodi, 1997; Ebigbo, Oluka, Ezenwa, Obidigo & Okwaraji, 1996), and may influence the manifestation of psychological well-being (cf. Floris & Obasi, 2003). Allik and McCrae (2004) indicated on basis of empirical findings that white South Africans are more individualist, and black South Africans more collectivist in cultural orientation. Oyserman, Coon and Kimmelmeier (2002) reported no significant differences between English speaking white South Africans and Americans on measures of individualism, but significant differences between Americans and black Africans on this variable. These authors also found that Americans differed significantly from black Africans on measures of collectivism, but not from white South Africans. It thus seems that white South Africans resemble Americans in individualism, whereas black Africans score higher on collectivism. As the focus of this study was not on the comparison of individualist / white versus collectivist / black groups, but on the evaluation of mainly 'western' measures in a

South African context, no attempt was made to measure individualism versus collectivism per se. However, it was kept in mind that it may possibly play a role, therefore separate analyses were conducted. It is also assumed that individualist and collectivist cultural values may co-exist in various domains for some participants in the South African context.

The aim of this study was thus to explore the psychometric properties of some scales measuring facets of psychological well-being in a South African context.

METHOD

Design and procedure

Scales were completed in two projects, namely FORT (FORT = Clarifying the nature of psychological strengths) and POWIRS (POWIRS = Profiles of Obese Women with the Insulin Resistance Sndrome) including in total 731 participants. Both projects included sub-groups of participants from two relatively distinguishable cultural contexts, i.e. a relatively more individualist cultural background (white South Africans, Afrikaans and English speaking), and a relatively more collectivist South African cultural background (black South Africans, mainly Setswana speaking). Both research projects had cross sectional survey designs (cf. Shaughnessey & Zechmeister, 1994). Questionnaires were completed in English. Trained fieldworkers, also fluent in the mother tongue of participants (to help to build rapport), assisted in administering the questionnaires in small groups. Some scales were included in both studies, while others differed, and the FORT-project including a greater variety of scales. Measures tapped facets of affective, cognitive, conative, physical, spiritual, interpersonal and social well-being. Written informed consent was obtained from each participant. Approval was obtained from the Ethics committee of the North-West University for these projects (approval numbers 05K10 and 03K03).

Participants

FORT –project (N=514)

Two sub-samples from the FORT-project (forte=strength) were included, namely, i) a convenience sample of 384 participants of which 313 were white, 56 black, 8 Indian and 4 so called coloured (3 did not indicate their ‘race’). Most were Afrikaans speaking under-graduate students from the

Potchefstroom campus of the North-West University which is an urban area. The sub-sample included 92 males and 288 females (4 did not indicate their gender; many undergraduate classes in psychology have more female than male students). Ages ranged from 18 to 65, with the majority between 18 and 25; and ii) a convenience sample of 130 participants from the rurally situated Mafikeng campus of the North-West University. This sub-group consisted of 114 black, 8 white and 1 Indian participants (7 did not indicate their 'race'). Most participants were Setswana speaking under-graduate students. The sub-sample included 77 females, and 51 males (2 did not indicate their gender). Ages ranged between 18 and 25. Data were collected in 2002.

POWIRS-project (N=217)

In this project the two sub-samples included 102 black African (mainly Setswana speaking), and 115 white Afrikaans or English speaking women, selected on basis of anthropometrical measures (for purposes of the multi-disciplinary POWIRS project). Participants were between 19 and 56 years of age. All participants had at least secondary school training, and were of middle income level. Data were collected in 2004 (African group) and 2005 (Caucasian group).

Measures

Scales included in both the FORT and POWIRS projects

Sense of Coherence Scale (SOC) (Antonovsky, 1987, 1993). The SOC (a 29-item scale) measures an individual's way of experiencing the world and his/her life in it. Core components are comprehensibility, manageability and meaningfulness. Sense of coherence is seen as an important determinant of psychological well-being and positive correlations have been found between the SOC and physical and psychological well-being (Antonovsky, 1987; Van Eeden, 1996). Antonovsky (1993) indicates that the SOC manifested internal reliability indices of .78 to .93 as reported in 26 different studies, and test retest reliability indices of .56 to .96. Antonovsky (1993) also reports good content and criterium validity.

Affectometer 2 (short version) (AFM) (Kammann & Flett, 1983). The AFM measures a general sense of well-being or general happiness. Psychological well-being is measured on an affective level by determining the balance between positive and negative affect (Kammann & Flett, 1983). Two equivalent parts of the AFM exist: the 20-sentence item scale and the 20-adjective item scale. The

20-sentence item scale is evaluated in the current research. Sub-scales measure Positive Affect (PA) (10 items), Negative Affect (NA) (10 items), and Positive-Negative-affect-Balance (PNB) (PA-NA=PNB). Kammann and Flett (1983) reported Cronbach alpha-reliability indices of .88 to .93.

Satisfaction With Life Scale (SWLS) (Diener, Emmons, Larsen & Griffin, 1985). The SWLS (a 5-item scale) was developed to give an indication of a person's general satisfaction with life. A person's evaluation of his quality of life, according to his own criteria, is measured on a cognitive-judgmental level. Diener *et al.* (1985) reported a two month test-retest reliability index of 0.82, and a Cronbach alpha-reliability index of 0.87. Pavot and Diener (1993) also contested to the good psychometric characteristics of this scale.

Fortitude Questionnaire (FORQ) (Pretorius, 1998). The FORQ is a 20-item scale that measures the strength to manage stress and stay well (fortitude). It consists of 3 subscales, namely (i) Self Appraisal (FORQ-S) that includes a global evaluative awareness or appraisal of the self, as well as appraisals of problem-solving efficacy and mastery / competence; (ii) Family Appraisal (FORQ-FA) referring to an evaluative awareness or appraisal of support from the family, level of conflict, degree of cohesiveness, and nature of family values; (iii) Support Appraisal (FORQ-FR) referring to an evaluative awareness of the level of support from friends, satisfaction with support, and efficacy in using such support resources. Cronbach alpha reliabilities for sub-scales range from .74 to .82, with an index of .85 for the total scale score (FORQ-T).

Constructive Thinking Inventory (sub-scales) (CTI) (Epstein & Meier, 1989). The CTI measures experiential intelligence, which is reflected in a person's tendency to automatically think in ways that are important in solving everyday problems, by categorizing the thoughts as constructive or destructive. A shortened version of the CTI (46 items), as developed by Epstein and Meier (1989), was used in the present study. The sub-scales included in this version, are the Global Constructive Thinking sub-scale (GCT) (which consists of items from all the other sub-scales and gives an indication of general constructive thinking), the Emotional Coping sub-scale (EC), and the Behavioral Coping sub-scale (BC). Epstein (1993) reported internal consistency-reliability indices of 0.90 for GCT, 0.92 for EC and 0.82 for BC and test-retest reliability indices of 0.86 for GCT, 0.90 for EC and 0.81 for BC.

Jarel Spiritual Well-Being Scale (SWS-H) (Hungelmann et al., 1989, 1996). The SWS-H measures the broad dimensions of spiritual well-being. The scale consists of 21 items. Preliminary data supports the reliability and construct validity of the instrument (Hungelmann et al., 1989). The authors reported a Cronbach alpha reliability of 0.85.

General Health Questionnaire (GHQ) (Goldberg & Hillier, 1979). The GHQ (28 items) detects common symptoms, indicative of various syndromes of mental disorder, and differentiates between individuals with psychopathology as a general class and those who are considered to be normal. Sub-scales are: Somatic Symptoms (SS), Anxiety and Insomnia (AI), Social Dysfunction (SD), and Severe Depression (DS). Cronbach alpha reliabilities reported vary from 0.82 to 0.86 (Goldberg et al., 1997), and 0.77 to 0.84 for subscales and 0.91 for the Total Scale Score in a South African sample (Wissing & Van Eeden, 2002). Goldberg et al. (1997) attest extensively to its validity. This scale is included because negative correlations would be expected with other measures when validity is determined.

Scales included only in FORT

Tennessee Self Concept Scale (TSCS) (Fitts & Roid, 1989). The TSCS (a 100-item scale) measures self-concept in five domains of human functioning, namely Physical (T-PHS-T), Moral-ethical (T-MES-T), Personal (T-PS-T), Family (T-FS-T), and Social (T-SS-T). Each of these five domains includes three internal frames of reference namely, identity, satisfaction and behaviour. A positive self-concept is associated with psychological well-being (Diener & Diener, 1995; Martin, Kuiper, Olinger & Dance (1993). Bracken (1996) reported alpha-reliability indices for the total scale of 0.94, and for the subscales 0.81-0.87. Fitts and Roid (1989) report indications of validity.

Cognitive Flexibility Scale (CFS) (Martin & Rubin, 1995). The CFS (a 12-item scale) gives an indication of a person's general cognitive flexibility by measuring three aspects, namely a person's (i) awareness that in any given situation there are options and alternatives available, (ii) willingness to be flexible and adapt to the situation, and (iii) self-efficacy in being flexible. Martin and Rubin (1995) report a test-retest reliability index of 0.83 and also contest to the good internal reliability and construct validity of the CFS.

Automatic Thoughts Questionnaire-Positive (ATQ-P) (Ingram & Wisnicki, 1988). The ATQ-P (a 30-item scale) gives an indication of the degree to which the respondent has automatic positive thoughts. There are four sub-scales (i) Daily functioning (ATQ-P_D), (ii) Self-evaluation (ATQ-P_S), (iii) Other evaluation of self (ATQ-P_O), and (iv) Future expectations (ATQ-P_F). Total automatic thoughts score (ATQ-P_T) is determined by adding the scores of all the items. Ingram and Wisnicki (1988) report a Cronbach alpha-reliability index of 0.94 for the ATQ-P and also contest to the good construct validity of the questionnaire.

Life Orientation Test (LOT) (Scheier & Carver, 1987). The LOT (a 12-item scale) measures optimism as an aspect of personality. Scheier and Carver (1987) define optimism as a general expectancy that positive outcomes will occur in life. Sub-scales are the Positive sub-scale (LOT-P) and the Negative sub-scale (LOT-N). The combined scores of the sub-scales (with the negative scale reversely scored), gives an indication of total optimism (LOT-T). Scheier and Carver (1993) report a Cronbach alpha-reliability index of 0.76 and a test-retest reliability index of 0.72 for the LOT and also contest to the good construct validity of the LOT.

HOPES: Hunter Opinions and Personal Expectations Scale (HOP) (Nunn, Lewin, Walton & Carr, 1996). The HOPES (a 20-item scale) operationalizes hope as the construction of, and response to the foreseeable future, wherein a person beliefs that desirable outcomes are probable. Three elements of hope are included, namely, temporality, desirability and expectation. The scale gives an indication of Global Personal Hopefulness (GPH) and sub-scales are the Hope Sub-scale (HS) and the Despair Sub-scale (DS). Nunn *et al.* (1996) reported Cronbach alpha-reliability indices of 0.88 for HS, 0.87 for DS and 0.88 for GPH. They also report a test-retest reliability index of 0.73 over 64 weeks and contested to the good construct validity of the HOPES.

The Hope Scale (HS) (Snyder, et al., 1991). Snyder et al. (1991) view hope as a cognitive construct, and indicate that hope implies the existence of a goal, a sense of being able to generate plans to meet that goal, and an expectation / determination to reach it. The HS consists of 12 items with 4 measuring Pathways (HS-P), 4 measuring Agency (HS-A), and the other 4 being buffer items. The sum of these sub-scales provides a total score (HS-T). Snyder et al. (1991) and Snyder (2000) reported good reliability, and evidence of validity. Snyder et al. (1991) reported Cronbach alpha-reliability indices of 0.74 to 0.84 for HS-T, 0.71 to 0.75 for HS-A and 0.63 to 0.80 for HS-P. They

also report an average test-retest reliability index of 0.80 over four studies and contest to the good construct validity of the HS.

Generalized Self-efficacy Scale (GSE) (Schwarzer & Jerusalem, 1993). The GSE (a 10-item scale) provides a measurement of the strength of an individual's conviction in his/her ability to react successfully to pressures and difficult situations, and to cope with any associated setbacks. Schwarzer and Jerusalem (1993) reported Cronbach alpha-reliability indices of between 0.82 and 0.93 and test-retest reliability indexes of 0.47 for males and 0.63 for females, over a 2 year period. They also contested to the good construct validity of the GSE.

The Spiritual Well-Being Scale (SWS) (Paloutzian and Ellison, 1982). This 20-item scale measures two dimensions of spirituality, namely a religious or vertical dimension based on a person's relationship with God, namely Religious Well-Being (SWS-RW), and an existential or horizontal dimension based on a person's life satisfaction, experience of life meaning and purpose, namely Existential Well-Being (SWS-EW). A total score for spiritual well-being is calculated by adding the sub-scale scores (SWS-T). The scale was found reliable and valid in several studies (Ellison & Smith, 1991; Mickley, Soeken & Belcher, 1992) with Cronbach alpha reliabilities ranging from 0.78 to 0.84 for the total scale.

Scales included only in the POWIRS project

The Cognitive Appraisal Questionnaire (CAQ) (Botha & Wissing, 2003; Botha, 2006). The CAQ is a self-report questionnaire (8 item version) based on the explanatory style theory of Buchanan and Seligman (1995). The degree of an optimistic versus a pessimistic explanatory style is measured. A more optimistic style (CAQ-O) is characterized by ascribing the causes of positive events to internal, global and stable factors, and viewing the causes of bad events as external, specific, and unstable. The opposite is true for a pessimistic style (CAQ-P). Unpublished available psychometric properties (cf. Botha, 2006) are similar than those reported in this study.

The Ego Resiliency Scale (ERS) (Block & Kremen, 1996). The ERS measures ego-resilience and consists of 14 items, each responded to on a 4-point scale (1 = "does not apply at all" to 4 = "applies very strongly"). Block and Kremen (1996) report a Cronbach alpha of .76 for this scale.

Evidence for the validity of the above-mentioned measures can be found in references provided for the various measures.

Analyses

Completed questionnaires were computer scored after the necessary programme was written and the data were cleaned. As all the questionnaires (except the FORQ) were developed in a western context and as sub-groups came from relatively different cultural backgrounds, psychometric equivalence can not be accepted. It was therefore decided to scrutinise the psychometric properties of the scales in the sub-groups separately. In view of the fact that the focus of this study was to explore the psychometric properties of scales developed in a 'western' context for applicability in the South African context, the large number of variables included, and space limitations for a manuscript no statistical comparisons between sub-groups within the South African context were made to determine equivalence. Descriptive statistics (means and standard deviations), reliability indices (Cronbach alphas; item-total and inter-item correlations), and validity indices (fit of structural equation models, factor analyses, and correlational patterns) were determined.

The standard of what level of reliability of instruments should be considered acceptable, differ somewhat in various contexts. Anastasi and Urbina (1997) considered indices of .80 to .90 as desirable, whereas Nunnally (1978) recommended minimum standards of .80 and .90 for basic and applied research respectively. Huysamen (1996) suggested that reliability coefficients should be .85 or higher if measures were to be used to make decisions about individuals, while it may be .65 or higher for decisions about groups. It is, however, not uncommon for researchers to characterize reliabilities in the .60s and .70s as good or adequate (e.g. Holden, Fekken & Cotton, 1991). For purposes of this first phase screening of instruments a relatively lenient level will be adopted, with indices higher than .70 considered to be acceptable, those below .60 as unacceptable, and those between .60 and .70 as mediocre. Internal consistency or homogeneity of scales can better be judged by average inter-item correlations and item-total correlations, than by Cronbach alphas, particularly in scales with more than 40 items, according to Clark and Watson (1995). These authors, as well as Smith and McCarthy (1995), indicated the importance of considering item-total and average inter-item correlations when psychometric properties of scales were to be inspected. Clark and Watson (1995) recommended a guideline of .15 - .50 for such correlations, with a norm of .15 -.20 for broad

constructs, and .40 - .50 for narrower constructs. For purposes of this study the general guideline of .15 - .50 was used.

In the case of construct validity, firstly evaluations were done by testing structural equation models (confirmatory option) with the aid of SEPATH (Statsoft Inc., 2004). The Root Mean Square Error of Approximation (RMSEA: Steiger, 1990) will be reported as measure of fit. A fit index is an overall summary statistic that evaluates how well a particular covariance structure model explains the sample data, i.e. it summarises the degree of correspondence between the implied and observed covariance matrices. Because of space limitations other indices of fit such as the Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI) and the Normed Fit Index (NFI) cannot be reported also. However, findings expressed in such indices are generally well aligned with results as reflected in the RMSEA index. The RMSEA gives an indication of the overall amount of error in the hypothesised model-data fit relative to the number of estimated parameters or the complexity of the model. It is a popular index based on the fact that it does not require comparison with a null model. For a good fit the RMSEA index should be .05 or less according to Browne and Cudeck (1993), whereas Hu and Bentler (1999) recommended a point estimate value for RMSEA indices lower than .06. McCullem, Brown and Sugarawa (1996) viewed RMSEA values of .08 - .10 as indicating a mediocre fit, and those greater than .10 as indicative of a poor fit. In view of the fact that the current research comprises a first phase exploratory study, it was decided to also leniently consider the instances of mediocre fit as indicated by McCullem et al. (1996). Testing of structural equation models was followed up with performance of traditional principal component confirmatory factor analyses (CFA), which is a common practice in measurement development. CFA is a top-down approach, i.e. the model tested is determined by theory. Then exploratory factor analyses (EFA) were performed to look at the structure of phenomena measured as dictated by data, i.e. a bottom-up approach. This was done because the underlying patterns in phenomena may differ in various cultural contexts. The criterion for factor retainment was Kaiser's eigenvalue greater than 1 rule, and at least 3 or more substantial loadings higher than .3 as indicated by Zwick and Velicer (1986) for recognition of a major factor. Because of space limitations the specific factor loadings cannot be given for all scales, therefore only the number of expected (determined by theory) and obtained (in current analyses) major factors will be reported in this overview study. Concurrent validity was determined by establishing correlational patterns among scales which are theoretically expected to correlate positively or negatively.

RESULTS

Means, standard deviations and reliability indices

Descriptive statistics, Cronbach alpha reliability indices and structural (correlational) indices for all scales and sub-scales in the FORT project are indicated in Table 1, and in Table 2 for the POWIRS project. An acceptable reliability index for the SOC was obtained in the black Mafikeng sub-group of the FORT project only after removal of two outlier responses.

[Table 1]

[Table 2]

Validity

Construct validity

Construct validity was determined for reliable scales by the testing of structural equation models and confirmatory principal components factor analysis. Results are indicated in tables 3 to 5.

[Table 3]

[Table 4]

[Table 5]

Concurrent validity

Correlations among scales to determine concurrent validity of measures in the FORT and POWIRS projects are reported in tables 6 to 9.

[Tables 6-9]

DISCUSSION

The reliability and validity of scales considered in this study varied from acceptable to totally unacceptable, specifically in the case of instruments measuring highly individualist orientated constructs which seem to be less applicable in an African more rural, perhaps more collectivist, cultural context.

Generally speaking, reliability indices for most scales evaluated in the current study, were more or less in line with that reported in western groups, in the case of the white subgroup of the FORT project. Some scales (i. e. the Tennessee Self-Concept Scale [TSCS], Life Orientation Test [LOT], Hope Scale [HS], Generalized Self-Efficacy Scale [GSE] and some sub-scales of the Automatic Thoughts Questionnaire-Positive [ATQ-P]) measured highly unreliable in a black subgroup. These particular scales measure constructs assumed to be indicative of well-being from a typical individualist cultural perspective, and which may be less applicable in an African, perhaps more collectivist orientated rural group (cf. Alik & McCrae, 2004; Oyserman et al., 2002; Wissing, Wissing, Du Toit, & Temane, 2006). Alternatively, these lower reliabilities may be attributed to differences in proficiency in English as a second language (which was not controlled in this study), but then this should have applied equally to other measures. In the case of the POWIRS project, conducted in an urban area, and with the above-mentioned unreliable scales excluded, all scales measured relatively reliably in both the white and black subgroups, with the Fortitude Questionnaire –Self [FORQ-S] (also reflective of a typical western notion) measuring relatively lower in the case of the African group of women. As was indicated in tables 1 and 2, most of the scales scrutinised in this study showed in all four subgroups satisfactory item-total and /or average inter-item correlations within the suggested range, with the exception of the Fortitude Questionnaire –Self (FORQ-S), Constructive Thinking Inventory (CTI), Tennessee Self-Concept Scale (TSCS), Cognitive Flexibility Scale (CFS), Life Orientation Test (LOT) and Hope Scale (HS) in the case of the Mafikeng sample in the FORT project, and the Sense of Coherence Scale (SOC) in the case of the African group of women in the POWIRS project. Excluding the latter scales, the internal consistency or homogeneity of most scales was thus supported.

Validity of reliable instruments were evaluated with the aid of testing of structural equation models, confirmatory principal components factor analyses, and exploratory factor analyses. As indicated in

Table 3, many scales had a mediocre fit as reflected in RMSEA indices with the upper point of the 90% confidence interval above .10. Only the Affectometer 2 (AFM) had an acceptable fit in all four subgroups, the Fortitude Questionnaire (FORQ) and Constructive Thinking Questionnaire (CTI) nearly so, and specific scales in particular groups (the Hunter Opinions and Personal Expectation Scale [HOP] acceptable in both subgroups of the FORT project, the Tennessee Self-Concept Scale [TSCS] acceptable in the white subgroup of the FORT, etc.). With further exploration of construct validity of reliable scales by means of confirmatory principal components factor analyses, another picture emerged. As indicated in tables 4 and 5 the expected number of major factors emerged for all scales in confirmatory analyses. The percentages of variance explained were, however, in most cases substantially smaller than those obtained with exploratory factor analyses, in which instances also more underlying factors arose. The differences in findings between the results of confirmatory and exploratory factor analyses indicate that the underlying emic factor pattern of many scales differ from those hypothesised by the scale developers in a western context. The Satisfaction With Life Scale (SWLS) was the only scale that manifested exactly the same underlying factor pattern and explained variance with confirmatory and exploratory factor analyses in all four groups of participants. It's factor pattern is in line with that hypothesised by the developers, and it can be concluded that this scale has construct validity in a South African context despite the fact that it's model fit as determined by the RMSEA index was unsatisfactorily (the small number of items could have played a role in the latter finding). Other scales in the FORT project with good construct validity as indicated by similarities between findings of confirmatory and exploratory factor analyses were the Life Orientation Test (LOT) and Spiritual Well-being Scale (SWS) in case of the white subgroup, and surprisingly the Hope Scale (HS) for both subgroups. In the POWIRS project the Cognitive Attribution Style Questionnaire (CAQ) showed construct validity in both the black and white groups as indicated by a similar factor pattern in confirmatory and exploratory analyses.

As indicated in tables 6 and 7, all scales in the FORT project showed significant correlations in the expected directions for both the white and black subgroups. The same pertains to correlations found in the POWIRS project as indicated in tables 8-9. These findings provide support for the concurrent validity of scales involved. It is, however, interesting to note that the magnitude of correlations differ for white and black groups (higher correlations in the case of white groups), and that the pattern of correlations with other variables differ in the case of Satisfaction With Life Scale (SWLS) for black and white groups in both the FORT and POWIRS projects. This is in line with the finding

of Wissing et al. (2006) that the SWLS clusters with indices of social support in relatively more collectivist groups, and with indices of intra-psychological well-being in relatively more individualist groups when factor analyses on scores are performed.

As far as the descriptive statistics of scales are concerned (means, standard deviations and range of scores) it is noteworthy that the white groups had in most instances higher scores, except for the Fortitude Questionnaire (FORQ), General Health Questionnaire (GHQ) and Affectometer 2-Negative Affect (AFM-NA) in which instances the black groups had higher scores (only numerical and not statistical differences given). The black groups had thus higher scores on an index of social support and on indices of symptoms and negative affect. The latter may be related to socio-economic contextual factors (cf. Temane and Wissing, 2006), or to differences in educational levels in the case of the FORT group (cf. Valiant, 2004, for the role of educational levels in well-being). Another alternative explanation may be that subtle internalization of racist stereotypes over many years might have influenced cognitive, behavioural and health related outcomes (just as implicit ageism may do as indicated by Levy, 2001). However, lower scores on indices of psychological well-being used in this study do not necessarily mean that the group manifesting the lower score has less well-being: it may be that the various characteristics are differentially prized in particular social and cultural contexts. Such an alternative interpretation is in line with the differences in patterns of psychological well-being found in relatively individualist versus relatively collectivist cultural groups as indicated by Wissing et al (2006). It is, however, of course assumed that not all black participants are necessarily more collectivist in cultural orientation, that continuous individualization and acculturation take place, and that great variation may exist in this group. Such variation is also indicated in the greater range of scores in black groups compared to those in white groups (see Table 1).

It can be concluded that the most promising scales for use in all groups are the Affectometer 2 (AFM), the Fortitude Questionnaire (FORQ) (except the FORQ-S), the Cognitive Appraisal Questionnaire (CAQ), the Satisfaction with Life Questionnaire (SWLS) the General Health Questionnaire (GHQ) (the latter measuring pathology), and probably the Sense of Coherence Scale (SOC). Findings with regard to the SOC, AFM, SWLS and GHQ concur with those of Wissing and Van Eeden (2002), and with findings reported for a stratified, randomly selected group of 738 Setswana speaking participants in the THUSA study (THUSA = Transition and Health during

Urbanisation of South Africans) (Wissing et al., 1999; Vorster et al., 2000). All other scales in the current study showed acceptable reliability indices and some indications of validity for the white, more individualist sub-groups. The Tennessee Self-Concept Scale (TSCS) cannot be recommended for use in black groups at this stage especially in the more rural areas or communities with a relatively more collectivistic value system. Other scales that showed poor reliability in African groups were the Life Orientation Test (LOT), the Hope Scale (HS), the General Self-efficacy Scale (GSE), and some sub-scales of the Automatic Thoughts Questionnaire (ATQ-P), namely ATQ-P-O (Evaluation of Others) and ATQ-P-F (Future Expectations). These scales were, however, only used in the FORT project, and findings may only be applicable to this specific group of respondents. It is notable that these particular scales all measure some form of future-directedness, agency or conative functioning that formed a specific secondary factor of psychological well-being in the case of relatively individualist groups (Wissing et al, 2006). Such an individualist, future- or achievement-orientation may be less valid as an indication of well-being in a relatively collectivist, more rural context. From the psychometric properties inspected for all scales it is clear that it cannot be accepted that scales measure the same underlying phenomenon in all groups, or that phenomena or traits are equally important in all groups as indications of psychological well-being.

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Table 1: Descriptive statistics, reliability indices and structural (correlational) indices for all scales and sub-scales in the FORT project for the Potchefstroom (PC, n=384) and Mafikeng (MC, n=130) groups

Scale	M	SD	Range Min-max	Cron- bach alpha	Range of item-total correl.	Mean inter- item correl.
SOC	137.9	21.7	54-195	.88	.25-.67	.20
	119.8	22.4	0-166	.72	.11-.37	.08
AFM-PNB(a)	16.8	n.a.	n.a.	n.a.	n.a.	n.a.
	13.7	n.a.	n.a.	n.a.	n.a.	n.a.
AFM-PA	37.5	5.7	18-50	.83	.42-.61	.33
	37.2	5.2	27-48	.64	.20-.41	.15
AFM-NA	20.7	6.7	10-48	.84	.35-.67	.35
	23.5	7.4	11-42	.79	.04-.67	.29
SWLS	24.8	5.8	5-35	.85	.61-.72	.53
	24.2	5.1	10-35	.66	.27-.53	.28
FORQ-T	58.53	9.4	28-80	.88	.30-.60	.28
	58.83	8.2	39-80	.78	.12-.51	.15
FORQ-S	20.5	3.6	10-28	.80	.28-.70	.37
	21.3	3.2	12-28	.50	.13-.35	.12
FORQ-FA	18.0	3.7	6-24	.85	.53-.73	.49
	16.8	3.4	7-24	.70	.37-.53	.28
FORQ-FR	19.9	4.8	7-28	.86	.44-.80	.49
	20.5	4.2	7-28	.75	.32-.60	.31

CTI-GCT	134.9	22.7	60-189	.93	.23-.70	.28
	95.6	10.1	74-125	.74	.04-.38	.05
CTI-EC	76.7	16.6	29-116	.92	.31-.71	.35
	75.8	9.6	46-108	.65	.01-.47	.06
CTI-BC	54.3	7.2	28-70	.83	.30-.59	.26
	48.7	6.1	35-64	.54	.01-.42	.08
SWS-H	100.4	11.3	65-124	.83	.09-.62	.20
	78.0	9.8	43-103	.60	.05-.50	.07
GHQ-T	5.0	5.8	0-27	.91	.30-.67	.28
	6.9	5.8	0-22	.86	.25-.54	.19
GHQ-SS	1.5	1.8	0-7	.78	.44-.57	.34
	2.0	1.9	0-12	.62	.24-.49	.19
GHQ-AI	1.6	2	0-7	.81	.43-.67	.39
	1.6	1.8	0-6	.71	.34-.53	.26
GHQ-SD	1.1	1.6	0-7	.76	.35-.54	.32
	1.7	1.6	0-6	.61	.15-.46	.18
GHQ-DS	.84	1.6	0-7	.85	.49-.75	.46
	1.7	1.7	0-8	.63	.22-.46	.20
TSCS -T	372.9	34.1	245-449	.93	.18-.63	.13
	322.2	20.3	273-409	.73	.00-.43	.02
T-PHS_T	65.8	9.2	34-85	.84	.21-.64	.23
	56.9	5.2	44-73	.21	.02-.18	.01
T-MES-T	70.3	8.7	44-90	.85	.25-.60	.24
	59.9	6.0	42-76	.45	.04-.41	.04

T-PS-T	68.1	9.4	26-89	.88	.30-.60	.28
	55.4	5.5	46-75	.19	.05-.28	.01
T-FS-T	67.5	8.0	36-84	.79	.28-.69	.18
	62.1	6.5	44-78	.51	.16-.62	.06
T-SS-T	68.1	8.2	45-88	.83	.31-.51	.22
	57.8	5.7	42-79	.38	.04-.27	.03
CFS	54.1	6.3	30-72	.77	.26-.49	.22
	47.5	6.8	25-67	.60	.04-.50	.11
ATQ-P-T	114.6	16.4	49-176	.94	.36-.73	.37
	118.3	16.1	87-155	.89	.14-.64	.22
ATQ-P-D	37.3	6.5	12-62	.89	.53-.71	.45
	37.0	6	23-50	.74	.17-.55	.23
ATQ-P-S	23.5	3.6	12-39	.80	.49-.63	.41
	24.5	4.1	14-30	.74	.35-.53	.33
ATQ-P-O	15.9	2.3	6-20	.73	.43-.62	.41
	15.5	2.5	9-20	.56	.30-.39	.24
ATQ-P-F (b)	4.0	.79	n.a.	*.67	n.a.	.67*
	3.9	1.03	n.a.	*.46	n.a.	.46*
LOT-T	31.7	6.3	13-47	.77	.10-.57	.22
	17.8	4.6	0-28	.52	.08-.44	.12
LOT-P	11.02	2.7	1-16	.71	.39-.62	.39
	9.8	2.9	0-16	.43	.10-.37	.15
LOT-N	9.5	3.1	0-16	.73	.47-.58	.41
	8.0	2.8	0-14	.40	.13-.32	.14

HOP-GHP (c)	56.6	10.7	19-80	n.a	.00-26	.04
	55.6	6.2	26-57	n.a.	-.04-18	0.1
HOP-HS	29.8	5.6	12-40	.83	.38-.66	.33
	27.6	6.5	12-40	.77	.22-.61	.26
HOP-DS	13.1	6.6	0-36	.79	.25-.59	.28
	12.0	7.2	0-.27	.76	.27-.62	.24
HS-T	25.1	3.4	14-32	.79	.35-.61	.32
	24.7	3.3	17-32	.58	.15-.54	.14
HS-A	12.54	1.7	6-18	.71	.42-.58	.38
	12.2	2.0	6-16	.47	.16-.37	.18
HS-P	12.5	1.8	8-22	.67	.39-.52	.34
	12.5	1.9	7-16	.35	.08-.24	.12
GSE	31.8	4.1	14-40	.83	.23-.64	.34
	20.9	4.1	11-33	.14	.03-.20	.01
SWS-T	97.8	14.7	52-120	.92	.48-.70	.39
	80.4	11.3	0-99	.69	.02-.59	.11
SWS-RW	50.1	9.7	10-60	.93	.57-.79	.59
	39.5	5.6	0-48	.32	.25-.45	.05
SWS-EW	47.4	7.6	20-60	.88	.48-.70	.44
	40.9	6.9	0-53	.63	.01-.60	.15

Note. (a) = AFM:PNB=PA-NA ; (b) = ATQ-P-F consists of only 2 items; (c) = HOP:GHP = (HS+40)-DS; *=*correlation coefficient*. SOC = Sense of Coherence scale; AFM = Affectometer 2, PNB= affect balance, PA = Positive Affect, NA = Negative Affect; SWLS = Satisfaction with Life Scale; FORQ = Fortitude Questionnaire, T= Total, S = Self, FA= Family, FR=Friends; CTI = Constructive Thinking Inventory, GCT =Global Constructive Thinking, EC = Emotional Coping,

BC = Behavioral Coping; SWS-H = Jarel Spiritual Well-Being Scale; GHQ = General Health Questionnaire, SS = Somatic Symptoms, AS = Anxiety and Insomnia, SD = Social Dysfunction, DS = Severe Depression; TSCS = Tennessee Self-Concept Scale, T = Total, T-PHS -T = Physical Self, T-MES-T = Moral-Ethical Self, T-S-T = Personal Self, T-FS-T = Family Self, T-SS-T = Social Self; CFS = Cognitive Flexibility Scale; ATQ-P = Automatic Thoughts Questionnaire-Positive, T = Total, D = Daily Functioning, S = Self-evaluation, O = Evaluation of Others, F = Future expectations; LOT = Life Orientation Scale, T = Total, P = Positive, N = Negative; HOP = Hunter Opinions and Personal Expectation Scale, GHP = Global Personal Hopefulness, HS= Hope Subscale, DS = Despair Subscale; HS = The Hope Scale, A = Agency; P = Pathways; GSE = Generalized Self-Efficacy Scale; SWS = Spiritual Well-being Scale, RW = Religious well-being, EW = Existential Well-being.

Table 2. Descriptive statistics, reliability indices and structural (correlational) indices for all scales and sub-scales in the POWIRS project for the White (more individualist) (n=115) and Black (more collectivist) (n= 102) women

Scale	M	SD	Range Min-max	Cron- bach alpha	Range of item-total correl.	Mean inter- item correl.
SOC	138.4	21.1	81-184	.88	.17-.67	.21
	<i>128.0</i>	<i>22.1</i>	<i>72-178</i>	<i>.81</i>	<i>-.11-.58</i>	<i>.13</i>
AFM: PNB(a)	14.9	n.a.	n.a	n.a.	n.a.	n.a.
	<i>12.7</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
AFM-PA	35.9	6.9	19 – 49	.87	.47 - .69	.41
	<i>38.1</i>	<i>6.5</i>	<i>24 - 50</i>	<i>.78</i>	<i>.31 - .56</i>	<i>.26</i>
AFM-NA	21.0	6.4	10 – 39	.86	.36 - .68	.38
	<i>25.4</i>	<i>7.8</i>	<i>10 - 47</i>	<i>.82</i>	<i>.27 - .63</i>	<i>.32</i>
SWLS	23.8	6.7	5 – 35	.89	.58 - .84	.64
	<i>24.0</i>	<i>6.3</i>	<i>7 - 35</i>	<i>.75</i>	<i>.37 - .65</i>	<i>.39</i>
FORQ-T	58.3	9.4	32 - 79	.89	.32 - .64	.30
	<i>62.2</i>	<i>8.8</i>	<i>37 - 77</i>	<i>.86</i>	<i>.25 - .63</i>	<i>.24</i>
FORQ-S	19.7	3.6	10 - 28	.79	.33 - .71	.37
	<i>22.6</i>	<i>3.1</i>	<i>15 - 28</i>	<i>.63</i>	<i>.17 - .45</i>	<i>.19</i>
FORQ-FA	19.6	4.5	8 - 28	.85	.40 - .77	.46
	<i>18.3</i>	<i>3.4</i>	<i>7 - 24</i>	<i>.75</i>	<i>.34 - .60</i>	<i>.34</i>
FORQ-FR	18.8	3.5	9 - 24	.87	.57 - .76	.52
	<i>21.4</i>	<i>4.7</i>	<i>7 - 28</i>	<i>.86</i>	<i>.42 - .73</i>	<i>.47</i>

SWS-H	104.9	9.9	76 - 124	.85	-.02 - .70	.22
	102.8	10.4	77 - 124	.78	.12 - .46	.15
GHQ-T	6.5	5.9	0 - 26	.90	.31 - .59	.25
	7.9	5.9	0 - 26	.87	.07 - .57	.20
GHQ-SS	2.2	2.0	0 - 7	.76	.40 - .54	.32
	2.3	2.2	0 - 7	.80	.46 - .63	.36
GHQ-AI	2.1	2.2	0 - 7	.84	.48 - .66	.44
	2.3	2.2	0 - 7	.80	.44 - .63	.36
GHQ-SD	1.4	1.7	0 - 7	.72	.32 - .58	.27
	1.9	1.8	0 - 7	.68	.32 - .54	.24
GHQ-DS	0.8	1.7	0 - 7	.87	.31 - .79	.53
	1.5	1.9	0 - 7	.78	.47 - .55	.35
CAQ-T	28.1	4.2	13 - 38	.65	.1 - .47	.21
	29.1	5.0	14 - 39	.71	.33 - .52	.25
CAQ-P	14.8	3.2	6 - 20	.76	.40 - .67	.45
	14.2	3.3	7 - 20	.69	.32 - .57	.36
CAQ-O	13.3	2.7	7 - 20	.74	.34 - .67	.42
	14.9	.32	5 - 20	.78	.42 - .72	.48
ERS	42.8-	6.0-	26 - 55-	.80-	.06 - .72-	.23-

Note. (a)=AFM:PNB=PA-NA; n.a.= not assessed; - = not available. SOC = Sense of Coherence scale; AFM = Affectometer 2, PNB= affect balance, PA = Positive Affect, NA = Negative Affect; SWLS = Satisfaction with Life Scale; FORQ = Fortitude Questionnaire, T= Total, S = Self, FA= Family, FR=Friends; SWS-H = Jarel Spiritual Well-Being Scale; GHQ = General Health Questionnaire, SS = Somatic Symptoms, AS = Anxiety and Insomnia, SD = Social Dysfunction, DS = Severe Depression; CAQ= Cognitive Attributional Style Questionnaire, T=Total, P = Pessimism, O = Optimism; ERS= Ego Resiliency Scale.

Table 3: Construct validity of reliable measures as determined by testing of structural equation models: RMSEA point estimates (PE) and 90% confidence intervals (CI) in the FORT and POWIRS projects

Scale	Steiger Lind RMSEA point estimates and confidence intervals							
	FORT				POWIRS			
	PC		MC		B/C		W/I	
	PE	CI	PE	CI	PE	CI	PE	CI
SOC	.09	.08 – .09	.10	.09 – .11	.09	.08 – .10	.09	.08 – .10
AFM	.07	.06 – .08	.07	.06 – .09	.07	.04 – .09	.07	.05 – .09
SWLS	.12	.09 – .17	.09	.00 – .17	.10	.00 – .19	.00	.00 – 0.00
FORQ	.07	.06 – .08	.07	.05 – .08	.08	.06 – .10	.09	.08 – .11
CTI	.08	.07 – .08	.06	.06-.07	.06	.05 – .07	.07	.07 – .08
SWS-H	.16	.15 – 0.17	.09	.08 – 0.11	.12	.11 – 0.14	.10	.08 – .11
GHQ	.10	.09 – .10	.09	.08 – .10	.08	.07 – .09	.10	.09 – .11
TSCS	.07	.06-.08	n.a.	n.a.	-	-	-	-
CFS	.10	.08 – .11	.06	.03-.09	-	-	-	-
ATQ-P	.09	.08 – .09	.10	.09-.11	-	-	-	-
LOT	.10	.08 – .12	n.a.	n.a.	-	-	-	-
HOP	.06	.05 – .07	.06	.05-.08	-	-	-	-
HS	.14	.12 – .16	n.a.	n.a.	-	-	-	-
GSE	.09	.07 – .10	.07	.04-.10	-	-	-	-
SWS	.09	.08 – .09	n.a.	n.a.	-	-	-	-
CAQ	-	-	-	-	.10	.05-.14	.10	.06 – .14
ERS	-	-	-	-	-	-	.07	.05 – .10

Note. n.a. = not assessed; - = not available. PC=Potchefstroom Campus; MC=Mafikeng Campus; B/C= Black/more collectivist women; W/I=White/more individualist women; SOC=Sense of Coherence Scale; HOP= HOPES Hunter Opinions and Expectation Scale; GHQ= General Health Questionnaire; GSE= Generalized Self Efficacy; CTI= Constructive Thinking Inventory; LOT= Life Orientation Test; FORQ= Fortitude Questionnaire; TSCS= Tennessee Self-Concept Scale; SWS-H: Jarel Spiritual Well-Being Scale; HS= The Hope Scale; AFM= Affectometer 2; CFS= Cognitive Flexibility Scale; SWLS= Satisfaction with Life Scale; ATQ= Automatic Thoughts Questionnaire Positive; SWS= Spiritual Well-Being Scale; CAQ= Cognitive Attributional Style Questionnaire; ERS= Ego Resiliency Scale.

Table 4: Number of expected (E) and obtained (O) factors identified with principal components confirmatory factor analyses (CFA), as well as factors obtained in exploratory factor analyses (EFA) and percentage variance explained for all scales in the FORT project for the Potchefstroom campus (PC) and *Mafikeng campus (MC)* (criterion for factor retainment: Kaiser's eigenvalue greater than 1 rule)

Scale	CFA		EFA	
	E & O factors	% var. expl.	nr. of factors	% var. expl.
SOC	1 [3]	25.3 [38.6]	7	54.9
	<i>1 [3]</i>	<i>15.6 [33.6]</i>	<i>10</i>	<i>65.1</i>
AFM	2	42.4	4	53.2
	2	34.1	7	64.5
SWLS	1	62.4	1	62.4
	<i>1</i>	<i>43.1</i>	<i>1</i>	<i>43.1</i>
FORQ	3	55.1	4	60.5
	3	38.3	7	62.5
CTI	2	37.8	8	58.5
	2	24.0	14	69.5
SWS-H	1	24.9	6	62.6
	<i>1</i>	<i>26.3</i>	<i>6</i>	<i>60.6</i>
GHQ	4	50.4	6	58.5
	4	42.0	10	66.6
TSCS	5	35.8	26	67.5
	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
CFS	1	29.4	4	58.3
	<i>1</i>	<i>25.6</i>	<i>5</i>	<i>65.9</i>

ATQ-P	4	54.5	5	58.2
	4	45.3	10	68.6
LOT	2	55.9	2	55.9
	2	40.7	3	54.6
HOP	2	39.5	4	50.5
	2	36.3	6	60.9
HS	2	54.5	2	54.5
	2	46.7	2	46.7
GSE	1	41.6	2	51.9
	1	23.8	3	50.1
SWS	2	58.3	2	58.3
	2	42.6	5	62.0

Note. n.a. = not assessed. SOC=Sense of Coherence Scale; AFM= Affectometer 2; SWLS= Satisfaction with Life Scale; FORQ= Fortitude Questionnaire; CTI= Constructive Thinking Inventory; SWS-H: Jarel Spiritual Well-Being Scale; GHQ= General Health Questionnaire; TSCS= Tennessee Self-Concept Scale; ; CFS= Cognitive Flexibility Scale; LOT= Life Orientation Test; ATQ= Automatic Thoughts Questionnaire Positive; HOP= HOPES Hunter Opinions and Expectation Scale; HS= The Hope Scale; Generalized Self Efficacy; SWS= Spiritual Well-Being Scale.

Table 5: Number of expected (E) and obtained (O) factors identified with principal components confirmatory factor analyses (CFA), as well as factors obtained in exploratory factor analyses (EFA) and percentages variance explained for all scales in the POWIRS project for White (more individualist) (W/I) and *Black (more collectivist) (B/C)* groups of women (criterion for factor retainment: Kaiser's eigenvalue greater than 1 rule)

Scale	CFA		EFA	
	E & O factors	% var. expl.	nr. factors	% var. expl.
SOC	1 [3]	27.2 [41.9]	9	66.7
	1[3]	18.5 [35.6]	11	70.7
AFM	2	47.0	4	58.8
	2	38.9	6	63.8
SWLS	1	70.4	1	70.4
	1	51.1	1	51.1
FORQ	3	55.6	5	66.6
	3	47.2	6	65.9
CTI	2 [3]	37.4 [42.4]	12	69.5
	2 [3]	24.7 [30.6]	15	70.7
SWS-H	1	27.6	5	57.0
	1	20.1	7	66.4
GHQ	4	52.4	8	70.7
	4	46.7	8	64.2
CAQ	2	59.0	2	59.0
	2	58.7	2	58.7
ERS	1-	30.8-	3-	50.7-

Note. - = not available. SOC=Sense of Coherence Scale; AFM= Affectometer 2;
SWLS= Satisfaction with Life Scale; FORQ= Fortitude Questionnaire;
CTI= Constructive Thinking Inventory; SWS-H = Jarel Spiritual Well-Being Scale;
GHQ= General Health Questionnaire; CAQ= Cognitive Attributional Style Questionnaire;
ERS= Ego Resiliency Scale.

Table 6: Correlations among total scale scores: FORT - White / more individualist (n=384)

Scale	HOP	GHQ	GSE	CTI	SOC	LOT	FORQ	TSCS	SWS_H	HS	AFM	CFS	SWLS	ATQ	SWS
HOP	1.00	-0.48	0.49	0.66	0.67	0.42	0.55	0.65	0.56	0.45	0.72	0.60	0.55	0.59	0.47
GHQ	-0.48	1.00	-0.31	-0.55	-0.56	-0.35	-0.41	-0.51	-0.34	-0.24	-0.58	-0.31	-0.48	-0.42	-0.44
GSE	0.49	-0.31	1.00	0.49	0.46	0.24	0.36	0.49	0.41	0.48	0.40	0.56	0.31	0.36	0.28
CTI	0.66	-0.55	0.49	1.00	0.71	0.52	0.60	0.64	0.48	0.47	0.67	0.56	0.54	0.56	0.43
SOC	0.67	-0.56	0.46	0.71	1.00	0.43	0.56	0.68	0.53	0.42	0.74	0.57	0.63	0.57	0.50
LOT	0.42	-0.35	0.24	0.52	0.43	1.00	0.40	0.40	0.34	0.33	0.43	0.35	0.37	0.42	0.33
FORQ	0.55	-0.41	0.36	0.50	0.56	0.40	1.00	0.58	0.43	0.42	0.64	0.44	0.53	0.61	0.45
TSCS	0.65	-0.51	0.49	0.64	0.68	0.40	0.58	1.00	0.61	0.47	0.75	0.60	0.64	0.60	0.53
SWS_H	0.56	-0.34	0.41	0.48	0.53	0.34	0.43	0.61	1.00	0.45	0.58	0.53	0.46	0.52	0.74
HS	0.45	-0.24	0.48	0.47	0.42	0.33	0.42	0.47	0.45	1.00	0.46	0.53	0.42	0.48	0.29
AFM	0.72	-0.58	0.40	0.67	0.74	0.43	0.64	0.75	0.58	0.46	1.00	0.59	0.73	0.73	0.58
CFS	0.60	-0.31	0.56	0.56	0.57	0.35	0.44	0.60	0.53	0.53	0.59	1.00	0.43	0.54	0.38
SWLS	0.55	-0.48	0.31	0.54	0.63	0.37	0.53	0.64	0.46	0.42	0.73	0.43	1.00	0.64	0.52
ATQ	0.59	-0.42	0.36	0.56	0.57	0.42	0.61	0.60	0.52	0.48	0.73	0.54	0.64	1.00	0.59
SWS	0.47	-0.44	0.28	0.43	0.50	0.33	0.45	0.53	0.74	0.29	0.58	0.38	0.52	0.59	1.00

Note. HOP = HOPES Hunter Opinions and Expectation Scale; GHQ = General Health Questionnaire; GSE = Generalized Self Efficacy; CTI = Constructive Thinking Inventory SOC = Sense of Coherence Scale; LOT = Life Orientation Test; FORQ = Fortitude Questionnaire; TSCS = Tennessee Self-Concept Scale; SWS-H: Jarel Spiritual Well-Being Scale; HS = The Hope Scale; AFM = Affectometer 2; CFS = Cognitive Flexibility Scale; SWLS = Satisfaction with Life Scale; ATQ = Automatic Thoughts Questionnaire Positive; SWS = Spiritual Well-Being Scale.

Table 7: Correlations among total scale scores: FORT – Black / more collectivist (n=130)

Scale	HOP	GHQ	GSE	CTI	SOC	LOT	FORQ	TSCS	SWS_H	HS	AFM	CFS	SWLS	ATQ	SWS
HOP	1.00	-0.61	0.38	0.58	0.38	0.33	0.38	0.63	0.60	0.51	0.60	0.51	0.15	0.60	0.60
GHQ	-0.61	1.00	-0.33	-0.46	-0.45	-0.34	-0.40	-0.64	-0.54	-0.38	-0.57	-0.40	-0.14	-0.45	-0.60
GSE	0.38	-0.33	1.00	0.37	0.33	0.20	0.30	0.36	0.37	0.39	0.38	0.23	0.17	0.28	0.42
CTI	0.58	-0.46	0.37	1.00	0.54	0.31	0.26	0.53	0.53	0.45	0.59	0.45	0.19	0.46	0.56
SOC	0.38	-0.45	0.33	0.54	1.00	0.07	0.33	0.54	0.38	0.25	0.53	0.36	0.25	0.37	0.51
LOT	0.33	-0.34	0.20	0.31	0.07	1.00	0.20	0.32	0.33	0.40	0.34	0.31	0.09	0.23	0.37
FORQ	0.38	-0.40	0.30	0.26	0.33	0.20	1.00	0.44	0.45	0.49	0.47	0.29	0.50	0.66	0.53
TSCS	0.63	-0.64	0.36	0.53	0.54	0.32	0.44	1.00	0.78	0.33	0.69	0.56	0.37	0.59	0.75
SWS_H	0.60	-0.54	0.37	0.53	0.38	0.33	0.45	0.78	1.00	0.52	0.67	0.55	0.42	0.60	0.74
HS	0.51	-0.38	0.39	0.45	0.25	0.40	0.49	0.33	0.52	1.00	0.53	0.9	0.39	0.53	0.44
AFM	0.60	-0.57	0.38	0.59	0.53	0.34	0.47	0.69	0.67	0.53	1.00	0.61	0.43	0.67	0.70
CFS	0.51	-0.40	0.23	0.45	0.36	0.31	0.29	0.56	0.55	0.39	0.61	1.00	0.30	0.51	0.61
SWLS	0.15	-0.14	0.17	0.19	0.25	0.09	0.50	0.37	0.42	0.39	0.43	0.30	1.00	0.50	0.36
ATQ	0.60	-0.45	0.28	0.46	0.37	0.23	0.66	0.59	0.60	0.53	0.67	0.51	0.50	1.00	0.64
SWS	0.60	-0.50	0.42	0.56	0.51	0.37	0.53	0.75	0.74	0.44	0.70	0.61	0.36	0.64	1.00

Note. HOP = HOPES Hunter Opinions and Expectation Scale; GHQ = General Health Questionnaire; GSE = Generalized Self *Efficacy*; CTI = *Constructive Thinking Inventory* SOC = *Sense of Coherence Scale*; LOT = *Life Orientation Test*; FORQ = *Fortitude* Questionnaire; TSCS = Tennessee Self-Concept Scale; SWS-H: Jarel Spiritual Well-Being Scale; HS = The Hope Scale; AFM = Affectometer 2; CFS = Cognitive Flexibility Scale; SWLS = Satisfaction with Life Scale; ATQ = Automatic Thoughts Questionnaire Positive; SWS = Spiritual Well-Being Scale.

Table 8: Correlations among total scale scores: POWIRS – Black/Collectivist

Scales	SOC	AFM	SWLS	FORQ	CTI	SWS-H	GHQ	CAQ
SOC	1.00	0.65	0.33	0.49	0.60	0.38	-0.51	0.42
AFM	0.65	1.00	0.51	0.47	0.70	0.49	-0.63	0.43
SWLS	0.33	0.51	1.00	0.53	0.29	0.11	-0.27	0.09
FORQ	0.49	0.47	0.53	1.00	0.40	0.24	-0.33	0.38
CTI	0.60	0.70	0.29	0.40	1.00	0.44	-0.52	0.51
SWS-H	0.36	0.49	0.11	0.24	0.44	1.00	-0.26	0.43
GHQ	-0.51	-0.63	-0.27	-0.33	-0.52	-0.26	1.00	-0.30
CAQ	0.42	0.43	0.09	0.38	0.51	0.43	-0.30	1.00

Note: SOC = Sense of Coherence Scale; AFM = Affectometer 2; SWLS = Satisfaction with Life Scale; FORQ = Fortitude Questionnaire; CTI = Constructive Thinking Inventory; SWS-H = Jarek Spiritual Well-Being Scale; GHQ = General Health Questionnaire; CAQ = Cognitive Attribution Style Questionnaire.

Table 9: Correlations among total scale scores: POWIRS – White/Individualist

Scales	SOC	AFM	SWLS	FORQ	CTI	SWS-H	GHQ	CAQ	ERS
SOC	1.00	0.74	0.77	0.69	0.77	0.69	-0.53	0.49	0.52
AFM	0.80	1.00	0.77	0.77	0.72	0.74	-0.54	0.50	0.53
SWLS	0.67	0.77	1.00	0.64	0.58	0.57	-0.58	0.38	0.45
FORQ	0.69	0.77	0.64	1.00	0.67	0.68	-0.48	0.47	0.53
CTI	0.77	0.72	0.58	0.67	1.00	0.70	-0.44	0.59	0.55
SWS-H	0.69	0.74	0.57	0.68	0.70	1.00	-0.43	0.51	0.58
GHQ	-0.53	-0.54	-0.58	-0.48	-0.44	-0.43	1.00	-0.31	-0.28
CAQ	0.49	0.50	0.38	0.47	0.59	0.51	-0.31	1.00	0.38
ERS	0.52	0.56	0.45	0.53	0.55	0.58	-0.28	0.38	1.00

Note: SOC = Sense of Coherence Scale; AFM = Affectometer 2; SWLS = Satisfaction with Life Scale; FORQ = Fortitude Questionnaire; CTI = Constructive Thinking Inventory; SWS-H = Jarel Spiritual Well-Being Scale; GHQ = General Health Questionnaire; CAQ = Cognitive Attribution Style Questionnaire; ERS = Ego Resiliency Scale.

SECTION 3: ARTICLE 2**PATTERNS OF PSYCHOLOGICAL WELL-BEING AND SATISFACTION WITH LIFE IN
CULTURAL CONTEXT**

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3.2 Chapter: Patterns of psychological well-being and satisfaction with life in cultural context

Patterns of psychological well-being and satisfaction with life in cultural context¹

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There is cognisance that contextual factors may influence the manifestation of psychological functioning, well-being and satisfaction with life (Christopher, 1999; Diener & Diener, 1995; Diener, 2000; Diener & Suh, 2000; Floris & Obasi, 2003; Greenfield, Keller, Fuligni & Mynard, 2003; Kwan, Bond & Singelis, 1997; Ryan & Deci, 2001; Suh, Diener, Oishi & Triandis, 1998), but the patterns of expression of psychological well-being and satisfaction with life in various cultural contexts need further clarification (Diener, Oishi, & Lucas, 2003). What is viewed as ‘the good life’ may differ in various cultural contexts, because the values may differ among cultures, and therefore the criteria by which success is judged (Diener & Suh, 2000). Updegraff, Gable and Taylor (2004:496) remarked that “The power of person and situational influences on psychological life is perhaps no more apparent than it is in the study of subjective well-being”. In the current study, analyses are made on responses to measures of psychological well-being, including satisfaction with life, obtained from four data sets gathered from participants from different cultural backgrounds in South Africa, i.e. white participants from a relatively more individualistic cultural background, and black participants from a traditionally relatively more collectivistic cultural background. No previous research could be found comparing individualist and African collectivist responses on measures of psychological well-being and satisfaction with life.

In cross-cultural comparisons of facets of psychological well-being, results are sometimes compared on national bases (e. g. Suh et al., 1998). However, in some nations such as the South African “rainbow nation” (as described by Nelson Mandela), multiple cultural contexts still exist next to, and overlapping each other. The broad categories of individualistic and collectivistic cultural contexts and associated worldviews as described by Bodibe and Sodi (1997), Christopher (1999), Diener and Suh (2000), Direko (2002), Ebigbo, Oluka, Ezenwa, Obidigo and Okwaraji, (1996), Ikuenobe, (1998), Suh et al., (1998), Triandis (2000 in Diener & Suh, 2000) and others, can be distinguished in the South African context. Allik and McCrae (2004) empirically attest to the clustering of white South Africans as more individualist, and black South Africans as more collectivist in cultural orientation. Oyserman, Coon and Kimmelmeier (2002) reported no significant differences between English speaking white South Africans and Americans on Individualism, but significant differences between Americans and black Africans on this variable. These authors also found that Americans differed significantly from black Africans on Collectivism, but not from white South Africans. It thus seems that white South Africans resemble Americans in individualism, whereas black Africans score higher on collectivism. In South Africa, the traditional Afrikaans and English speaking white groups manifest a typical individualistic cultural orientation

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in terms of their shared patterns of behavioural readiness, assumptions, attitudes, beliefs, self-definitions, norms, values, historical background and language groupings, whereas traditional black South Africans manifest a typical collectivist cultural orientation in terms of their shared patterns of behavioral readiness, assumptions, attitudes, beliefs, self-definitions, norms, values, historical background and language groupings. In Table 1 a description is given of typical individualist and collectivist characteristics as described in the literature and as can be distinguished in South African white, more individualist, and black, more collectivist groups.

Table 1. Characteristics of individualist and collectivist South African cultural contexts

Variable	Individualist	Overlap	Collectivist
Focus of identity	self self actualization autonomy assertiveness		group norms (focus on self is viewed as immature)
Attitudes and behavior determined by	individual thoughts feelings and needs		social context and consequences
Interpersonal relationships	personal choices assertiveness independence		social responsibility loyalty interdependence intergeneration harmony
Time perspective	focus on future goal-directedness		past important for meaningful present
Valued thought processes and views of giftedness	more linear cause and consequences individual intelligence creativity scepticism curiosity		more contextual meaning seeking social intelligence focused listening sensitive perception mindfulness
Developmental socialization for	self-maximalization positive self-esteem assertiveness independence competition		loyalty responsibility respect honesty harmony
Assumption of causes of pathology	biological psychological social		disruption of harmony between person and context
Shared history and languages	Western orientation, having and releasing political power English and Afrikaans		African orientation suffering from apartheid becoming majority power African languages

Although individualist and collectivist cultural contexts can be distinguished within South Africa, there is, of course, also great variability within these contexts on an individual level. With urbanization and development of higher socio-economic status, there is also a tendency for black

South Africans to develop a relatively more individualistic value system in some instances. Blending of cultural practices is also taking place. Therefore, the distinction between individualist and collectivist cultural contexts is viewed, for purposes of this study, as real, but at the same time as relative, rather than absolute.

In the literature on psychological well-being references could be found to East Asian collectivist cultural contexts, but there is a gap in understanding of psychological well-being in an African cultural context. Findings from East Asian countries do not necessarily apply in an African context. Eastern collectivist groups are more tempered and reserved in self expression, whereas African collectivist groups are more sunny and expressive which may influence the typical patterns of psychological well-being that are manifested.

In this study patterns of psychological well-being as measured by various indices are explored in relatively more individualist vs. collectivist cultural groups in South Africa. Indices measured amongst others sense of coherence, satisfaction with life, affect balance, emotional intelligence, self-concept, fortitude, constructive thinking, cognitive flexibility, automatic positive thoughts, optimism, hope, self-efficacy, spiritual well-being, attributional style, perceived social support, and general (ill)health.

Method

Design and procedure

This study consists of secondary analyses of four data sets, providing six separate samples, including in total 1,909 participants from two relatively distinguishable cultural contexts, i.e. a relatively more individualist cultural background (white South Africans, Afrikaans and English speaking), and a relatively more collectivist South African cultural background (black South Africans, mainly Setswana speaking). All studies had cross sectional survey designs. In all studies trained fieldworkers assisted in administering the questionnaires in small groups or individually in a structured interview format (in the case of illiterate participants in the THUSA study). Some questionnaires were applied in all studies, while others varied in the different studies. Measures tapped facets of affective, cognitive, physical, spiritual, interpersonal and social well-being.

Data sets

FORT (N=443). Two sub-samples from the FORT study (FORT = Clarifying the nature of psychological strengths; *forte*=strength) are included in the present analyses, namely, a) an availability sample of 313 white male and female Afrikaans speaking under-graduate students from Potchefstroom, and b) an availability sample of 130 black male and female Setswana speaking under-graduate students from Mafikeng. The city of Potchefstroom is situated in a relatively rural area, and Mafikeng is in a deep rural area of the North West Province of South Africa. Measuring instruments included in this study were the Sense of Coherence Scale (SOC) (Antonovsky, 1987); Affectometer 2, short version (AFM), Kammann & Flett, 1983); Satisfaction With Life Scale (SWLS) (Diener, Emmons, Larsen & Griffin, 1985); Bar-On Emotional Quotient Inventory (EQ-I) (Bar-On, 1997); Tennessee Self Concept Scale (TSCS) (Fitts & Roid, 1989); Fortitude Questionnaire (FORQ) (Pretorius, 1998); Constructive Thinking Inventory (sub-scales) (CTI) (Epstein & Meier, 1989); Cognitive Flexibility Scale (CFS) (Martin & Rubin, 1995); Automatic

Thoughts Questionnaire-Positive (ATQ-P) (Ingram & Wisnicki, 1988); Life Orientation Test (LOT) (Scheier & Carver, 1985); HOPES: Hunter Opinions and Personal Expectations Scale (HOP-GHP) (Nunn, Lewin, Walton & Carr, 1996); Hope Scale (HS) (Snyder, et al., 1991); Generalized Self-efficacy Scale (GSE) (Schwarzer & Jerusalem, 1993); The Spiritual Well-Being Scale (SWS) (Paloutzian & Ellison, 1982); JAREL Spiritual Well-Being Scale (SWS-H) (Hungelmann, Kenkel-Rossi, Klassen, & Stollenwerk, 1989); and the General Health Questionnaire (GHQ) (Goldberg & Hillier, 1979). Two domain scales of the NEO-PI-R (Costa & MacCrae, 1992) were also included, namely: Extraversion (NEO-E) and Agreeableness (NEO-A). All scales manifested good Cronbach reliability indices in the white / individualist group (ranging from 0.79 to 0.94), but the SOC, LOT, HS and SWS manifested unacceptable reliability indices in the black /collectivist group and were omitted from further analyses of data of this group. Construct validity of reliable measures was indicated by confirmatory factor analysis through testing of structural equation models or confirmatory principal components factor analysis. (See Wissing, Wissing, Du Toit & Temane, 2002 for details and information on reliability and validity of scales).

POWIRS (N=102). (*POWIRS* = Profiles of Obese Women with the Insulin Resistance Sndrome). In this study, 102 black African women (mainly Setswana speaking) completed questionnaires on psychological well-being as part of a multidisciplinary study. The women were recruited from a governmental organization in the Potchefstroom area on the basis of anthropometrical measures (half of them were obese and the others of normal weight), had at least secondary school training, and were of middle income level. The same measures of psychological well-being mentioned above included were the SOC, SWLS, AFM, SWS-HT, CTI, FORQ and GHQ. Additional measures were the Cognitive Attributional Style Questionnaire (CAQ) based on the explanatory style theory of Buchanan and Seligman, 1995 (Botha & Wissing, 2003), and three sub-scales of the Psychological Well-Being Scales (SPWB) of Ryff and colleagues (Ryff, 1989), namely, Positive Relationships (PR), Environmental Mastery (EM), and Purpose in Life (PL). All scales manifested good Cronbach reliability indices, ranging from 0.72 – 0.86 (Botha & Wissing, 2004).

THUSA (N=814). As part of the multi-disciplinary *THUSA* study (*THUSA* = Transition and Health during Urbanization of South Africans), 814 Setswana speaking African participants, randomly selected in the North West Province of South Africa with stratification for the degree of urbanization, also completed measures of psychological well-being. Participants were between 15 and 65 years of age, with approximately equal numbers of men and women in the various urbanization strata. Measuring instruments included and used for the current secondary analysis were the SOC, AFM, SWLS, GHQ as used in the FORT project mentioned above, as well as the Perceived Social Support Scale (PSS) of Procidano and Heller (1983) (See Vorster, et al., 2000, and Wissing et al., 1999 for details and particulars of translation, reliability and validity of scales for this particular group of respondents).

VAAL (N=550). Two sub-samples were used from the *VAAL* study (*VAAL* = Vaal Triangle area in Gauteng, which is an urban area, regarded as is a microcosm of the rainbow peoples of South Africa), namely, a) an availability sample of 292 white adults (mainly English speaking) and b) an availability sample of 258 black adults, mainly Sesotho speaking, but some also having Xhosa, Zulu or Setswana as mother tongue. Participants were between 18 and 65 years of age, with approximately equal numbers of men and women in the two subgroups. Measures used in the *VAAL* study included in the current secondary analysis are the SOC, SWLS, AFM and GHQ, as

well as two sub-scales from the PSS, namely Perceived Support from Friends (PSS:FR) and Perceived Support from Family (PSS:FA). (See Van Eeden, 1996 and Wissing & Van Eeden, 2002 for details and information on reliability and validity of scales).

Measuring instruments

Scales included in all data sets

Sense of Coherence Scale (SOC) (Antonovsky, 1987). The SOC (a 29 item scale) measures an individual's way of experiencing the world and his/her life in it. Core components are comprehensibility, manageability and meaningfulness.

Affectometer 2 (AFM) (Kammann & Flett, 1983). The AFM was developed to measure a general sense of well-being or general happiness. Psychological well-being is measured on an affective level by determining the balance between positive and negative affect. Two equivalent parts of the AFM exist: the 20-sentence item scale (short version) and the 20-adjective item scale. The short version was used in the FORT, POWIRS and THUSA studies, while the VAAL project included both components (long version). Sub-scales are Positive Affect (PA) and Negative Affect (NA), with affect balance being indicated by PA-NA=PNB.

Satisfaction With Life Scale (SWLS) (Diener, Emmons, Larsen & Griffin, 1985). The SWLS (a 5-item scale) was developed to give an indication of a person's general satisfaction with life. Evaluation of quality of life, according to own criteria, is measured on a cognitive-judgmental level.

General Health Questionnaire (GHQ-28) (Goldberg & Hillier, 1979). The GHQ aims to detect common symptoms indicative of various syndromes of mental disorder. It measures the opposite of well-being, namely the degree of somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression.

All studies included one of the following two social scales measuring social support:

Fortitude Questionnaire (FORQ) (Pretorius, 1998). The FORQ is a 20-item scale that measures the strength to manage stress and stay well (fortitude). It has 3 sub-scales that measure appraisal of own problem-solving efficacy and mastery, perceived support from family, and perceived support from friends.

Perceived Social Support Scale (PSS) (Procidano & Heller, 1983). The 40-item Perceived Social Support Scale consists of two sub-scales with 20 items each, namely Perceived Social Support from Friends and Perceived Social Support from Family, and measures the extent to which an individual perceives that her/his needs for support, information and feedback are fulfilled by friends and family.

Other scales included in FORT or POWIRS projects

Bar-On Emotional Quotient Inventory (EQ-I) (Bar-On, 1997). The EQ (a 113 item scale) operationalizes the concept of emotional intelligence, and measures facets of intra-personal and interpersonal well-being, adaptability, capacity to manage stress, and general mood.

Tennessee Self Concept Scale (TSCS) (Fitts & Roid, 1989). The TSCS (a 100-item scale) measures physical, moral-ethical, personal, family, and social self-concept.

Constructive Thinking Inventory (short version) (CTI) (Epstein & Meier, 1989). The 46-item CTI measures experiential intelligence, which is reflected in a person's tendency to think automatically in ways that are important in solving everyday problems.

Cognitive Flexibility Scale (CFS) (Martin & Rubin, 1995). The CFS (a 12-item scale) gives an indication of a person's general cognitive flexibility by measuring three aspects of cognitive flexibility, namely a person's (i) awareness that in any given situation there are options and alternatives available, (ii) willingness to be flexible and adapt to the situation, and (iii) self-efficacy in being flexible.

Automatic Thoughts Questionnaire-Positive (ATQ) (Ingram & Wisnicki, 1988). The ATQ (30 items) has 4 sub-scales and gives an indication of the degree to which the respondent has automatic positive thoughts about daily functioning, the self, others and the future.

Life Orientation Test (LOT) (Scheier & Carver, 1985). The LOT (a 12-item scale) measures optimism as a general expectancy that positive outcomes will occur in life.

HOPES: Hunter Opinions and Personal Expectations Scale (HOP) (Nunn et al., 1996). The HOPES (a 20-item scale) measures hope as the construction of, and response to the foreseeable future, wherein a person believes that desirable outcomes are probable. Three elements of hope are included, namely, temporality, desirability and expectation.

The Hope Scale (HS) (Snyder, et al., 1991). The 12-item HS measures hope as a cognitive construct that implies the existence of a goal, a sense of being able to generate plans to meet that goal and an expectation/ determination to reach it.

Generalized Self-efficacy Scale (GSE) (Schwarzer & Jerusalem, 1993). The GSE (a 10-item scale) measures the strength of an individual's conviction in his/her ability to react successfully to minimum pressures as well as to difficult situations, and to cope with any associated setbacks.

The Spiritual Well-Being Scale (SWS) (Paloutzian and Ellison, 1982). The SWS (a 20-item scale) measures two dimensions of spirituality, firstly a religious or vertical dimension based on a person's relationship with God, and secondly, an existential or horizontal dimension based on a person's life satisfaction, and experience of life meaning and purpose.

JAREL Spiritual Well-Being Scale (SWS-H) (Hungelmann et al., 1989). The 21-item SWS-H measures broad dimensions of spiritual well-being including the harmonious interconnectedness of all the individual's components.

NEO-PI-R: Extraversion (E) and Agreeableness (A) (Costa & MacCrae, 1992). The Revised NEO Personality Inventory (NEO) measures five major dimensions or domains of personality functioning, each consisting of 48 items and each reflecting six specific facets (8 items each). In the current study, only the domain scales for Extraversion (E) and Agreeableness (A) were used.

Cognitive Attributional Style Questionnaire (CAQ) (Botha & Wissing, 2003). The 8-item CAQ is based on the explanatory style theory of Buchanan and Seligman (1995), and measures the degree of

an optimistic vs. a pessimistic explanatory style. A more optimistic style is characterized by viewing the causes of bad events as external, specific, and unstable, while positive events are ascribed to internal, global and stable factors.

Scales of Psychological Well-Being (SPWB) (Ryff, 1989; Ryff & Keyes, 1995). Three of the six 14-item scales of Ryff and colleagues for the measurement of psychological well-being (SPWB) have been used, namely the scales for (i) Positive Relations with others (SPWB-PR), (ii) Environmental Mastery (SPWB-EN, and (iii) Purpose in Life (SPWB-PL).

Results

Factor analyses based on total scale scores in the various data sets

FORT-project

Individualist Group (all scales). Results from a principal components factor analysis with varimax rotation on the total scale scores of measuring instruments for the individualist cultural group in the FORT project are shown in Table 2. The two extracted factors explain 66.3% of the total variance. Satisfaction with life and affect-balance, are the two highest loading components on the first factor. This factor indicates that there is a great deal of overlap in empirical denotations of many indices of psychological well-being, explaining 58.8% of the total variance, and which can be called “general psychological well-being” (cf. Wissing, Wissing, du Toit & Temane, 2002). The first factor includes affective, cognitive, spiritual, physical, and social components. The second factor explains 7.5% of the total variance and represents experiences of self-efficacy and behavioural readiness /future-directedness. This factor may reflect a conative component.

Table 2. Principal component factor analysis with varimax rotation on total scale scores: FORT Individualist Group (n=313)

Scale	Factor 1	Factor 2
EQ-I	0.57	0.68
HOP	0.62	0.58
GHQ	-0.72	-0.13
GSE-	0.12	0.81
CTI-GCT	0.62	0.55
SOC	0.71	0.47
LOT	0.59	0.27
FORQ	0.69	0.33
TSCS	0.71	0.52

SWS-H	0.56	0.45
HS	0.24	0.79
AFM-PNB	0.81	0.42
CFS	0.31	0.81
SWLS	0.78	0.25
ATQ	0.70	0.38
SWS	0.74	0.13
Eigenvalue	9.4	1.2
% Var. Expl.	58.77	7.53

Note: EQ-I = Emotional Quotient Inventory; HOP = HOPES Hunter Opinions and Expectation Scale; GHQ = General Health Questionnaire; GSE = Generalized Self Efficacy Scale; CTI = Constructive Thinking Inventory; SOC = Sense of Coherence Scale; LOT = Life Orientation Test; FORQ = Fortitude Questionnaire; TSCS = Tennessee Self-Concept Scale; SWS-H = Jarel Spiritual Well-Being Scale; HS = The Hope Scale; AFM-PNB = Affectometer 2, Positive Negative Affect Balance Scale; CFS = Cognitive Flexibility Scale; SWLS = Satisfaction with Life Scale; ATQ-P = Automatic Thoughts Questionnaire - Positive; SWS = Spiritual Well-Being Scale.

Collectivist Group. In this sub-group the SOC, LOT, HS and SWS manifested unacceptable reliability indices and were omitted from this analysis. Results from a principal components factor analysis with varimax rotation on the total scale scores of measuring instruments for the black (more collectivist cultural group) participants in the FORT project are shown in Table 3, as well as results from a factor analysis comprising the same scales, on data of the white group. For the black / collectivist group two clear factors emerged, explaining 64% of the total variance. Again most indices loaded highly on the first factor (general psychological well-being) that explains 53.7% of the total variance. However, in this instance satisfaction with life loaded highly on the second factor together with fortitude (FORQ – measure of perceived social support), and can be called “social satisfaction”.

Table 3. Principal component factor analysis (with varimax rotation) on total scale scores: FORT Collectivist Group (n=130) (only reliable scales) compared with the Individualist Group (n=313) on the same scales

Scale	Collectivist Group (n=130)		Individualist Group (n=313)
	Factor 1	Factor 2	Factor 1
EO-I	0.84	0.23	0.87
HOP	0.85	0.13	0.83
GHQ	-0.76	-0.12	-0.63
GSE	0.51	0.11	0.62
CTI-GCT	0.76	0.09	0.80
FORO	0.29	0.73	0.72
SWS-HT	0.70	0.43	0.70
TSCS	0.77	0.36	0.86
AFM-PNB	0.70	0.48	0.89
CFS	0.62	0.31	0.74
SWLS	0.03	0.88	0.75
ATO	0.53	0.67	0.77
Eigenvalue	6.45	1.25	7.09
% Var. Expl.	53.74	10.39	59.11

Note: EQ-I = Emotional Quotient Inventory; HOP = HOPES Hunter Opinions and Expectation Scale; GHQ = General Health Questionnaire; GSE = Generalized Self Efficacy Scale; CTI = Constructive Thinking Inventory; FORQ = Fortitude Questionnaire; TSCS = Tennessee Self-Concept Scale; SWS-H = Jarel Spiritual Well-Being Scale; AFM-PNB = Affectometer 2- Positive Negative Affect Balance Scale; CFS = Cognitive Flexibility Scale; SWLS = Satisfaction with Life Scale; ATQ-P = Automatic Thoughts Questionnaire - Positive.

Individualist Group (only same scales as used for the collectivist group). One (general psychological well-being) factor emerged (see Table 3) when only the same scales were used that were reliable for use in the black / collectivist group. It includes, cognitive, affective, conative, social, spiritual and physical components, and satisfaction with life is part of it.

POWIRS-project

Collectivist Group. Results from a principal components factor analysis with varimax rotation on the total scale scores of measuring instruments for a black (more collectivist cultural group)

participants in the POWIRS project are shown in Table 4. Two clear factors emerged, explaining 64.38% of the total variance. The first factor indicates an overlap in various measures of psychological well-being, explains 53.82% of the total variance, and can be named “general psychological well-being”. The second factor can be named “social or contextual satisfaction” with its highest loading from satisfaction with life. The pattern of well-being resembles that what was identified for the black /collectivist group in the FORT data set.

Table 4. Principal component factor analysis with varimax rotation on total scale scores of POWIRS Collectivist Group of black women (N=102)

Scale	Factor 1	Factor 2
SWS-H	0.72	-0.09
CTI_GCT	0.78	0.30
SWLS	0.06	0.87
SOC	0.66	0.43
FORQ	0.35	0.67
AIM-PNB	0.70	0.53
GHQ	-0.51	-0.45
CAQ	0.73	-0.05
PWB-PR	0.74	0.22
PWB-EN	0.73	0.47
PWB-PL	0.79	0.30
Eigenvalues	5.92	1.15
%Var. Expl.	53.82	10.46

Note: SWS-H = Jarel Spiritual Well-Being Scale; CTI = Constructive Thinking Inventory; SWLS = Satisfaction with Life Scale; SOC = Sense of Coherence Scale; FORQ = Fortitude Questionnaire; AFM-PNB = Affectometer 2 - Positive Negative Affect Balance Scale; GHQ = General Health Questionnaire; CAQ = Cognitive Attributional Style Questionnaire; PWB = Psychological Well-being Scale: PR = Positive Relationships; EN = Environmental Mastery; PL = Purpose in Life.

THUSA-project

Collectivist Group. Results from a principal components factor analysis with varimax rotation on the total scale scores of measuring instruments for this black, more collectivist cultural group of participants, are shown in Table 5. Two clear factors emerged, explaining 61.57% of the total variance. The first factor (explaining 41.44% of the total variance) is again a general psychological

well-being factor including affective, cognitive and physical components, while the second factor (explaining 20.13% of the total variance) is mainly characterized by satisfaction with life and perceived social support, and can be named “social satisfaction”.

Table 5. Principal component factor analysis with varimax rotation on total scale scores of THUSA Collectivist Group (N=814)

Scale	Factor 1	Factor 2
GHQ	-0.86	0.17
AFM-PNB	0.76	0.34
SOC	0.67	0.37
SWLS	0.08	0.76
PSS	0.06	0.65
Eigenvalues	2.07	1.01
%Var. Expl.	41.44	20.13

Note: GHQ = General Health Questionnaire; AFM-PNB = Affectometer 2 - Positive Negative Affect Balance Scale; SOC = Sense of Coherence Scale; SWLS = Satisfaction with Life Scale; PSS = Perceived Social Support Scale.

VAAL-project

Results from a principal components factor analysis with varimax rotation on the total scale scores of measuring instruments for the black (more collectivist) and white (more individualist) participants in the VAAL project are shown in Table 6. In the *Collectivist Group* two factors emerged, explaining 59.9% of the total variance. The first factors can be named “general intrapsychological well-being” contributed to mainly by a sense of coherence, positive affect, and absence of physical symptoms and negative affect. The second factor represents “social support /satisfaction”. Satisfaction with life loaded highest on the first factor, but also significantly on the second factor. It is interesting to note that positive affect also loaded significantly on the second factor, but not as high as on the first factor, but that negative affect only loaded (negatively) on the first factor. In the *Individualist Group* one (general psychological well-being) factor emerged, explaining 54.86% of the total variance. This factor is characterized by a sense of coherence, positive affect, satisfaction with life, perceived social support and the absence of physical symptoms and negative affect. This factor includes affective, cognitive, and physical facets, as well as the social components of well-being.

Table 6. Principal component factor analysis with varimax rotation on total scale scores in VAAL project for Collectivist (n=258) and Individualist (n=292) groups

Scales	Collectivist Group		Individualist Group
	Factor 1	Factor 2	Factor 1
SWLS	0.48	0.37	0.75
PSS-FR	0.02	0.84	0.52
PSS-FA	0.23	0.70	0.55
GHQ	-0.76	-0.07	-0.70
SOC	0.80	0.14	0.84
AFM-PA	0.68	0.38	0.81
AFM-NA	-0.84	-0.03	-0.88
Eigenvalues	3.11	1.08	3.77
%Var. Expl.	44.37	15.53	54.86

Note: SWLS = Satisfaction with Life Scale; PSS-FR = Perceived Social Support Scale –Friends; PSS-FA = Perceived Social Support Scale – Family; GHQ = General Health Questionnaire; SOC = Sense of Coherence Scale; AFM-PA = Affectometer 2 - Positive Affect; AFM-NA = Affectometer 2 - Negative Affect.

Second order exploratory factor analyses on sub-scale scores: FORT project

A more finely tuned analysis of patterns of psychological well-being in cultural context can be obtained by using sub-scale scores in analyses rather than total scale scores. In many instances the summing of sub-scale scores into a total score mixes “individual” and “social” facets, for example in the FORQ and ATQ. In other instances such as the AFM, it may be that positive and negative affect do not cluster in the same way with other variables. Therefore, analyses were also performed on reliable sub-scale scores on instruments used in the FORT project to compare patterns of psychological well-being in a relatively individualist / white and a relatively collectivist / black group.

FORT- Individualist Group

With an exploratory second order factor analysis (maximum likelihood method of factor extraction with varimax rotation) on all sub-scale scores of the white /individualist group, 4 factors emerged and can be described from content of scales loading highly, as follows:

Factor 1: General Intra-Personal Well-Being (BEING) (explains 20.21% of variance). The content of this factor refers to intra-personal well-being or adaptability with cognitive, conative, affective, behavioural and self-evaluative components; capacity to cope emotionally and behaviourally, and to solve problems with good stress management; experience of hopefulness, optimism, sense of coherence, self-efficacy, positive self-evaluation, and cognitive flexibility

Factor 2: Contextual Well-Being (GETTING/RECEIVING) (explains 15% of variance). The content of this factor consists of automatic optimistic expectations of daily life, the self and social context, positive affect, satisfaction with life, extraversion; spiritual experience of existential well-being; automatic positive expectations from others and enjoyment of their company. It seems to be an “Inside-Out” factor in the sense that what is received is determined by what is expected. It is reminiscent of Taylor et al.’s (2000) “befriending” component of interpersonal relationships.

Factor 3: Interpersonal Well-being (GIVING) (explains 11.37% of variance). The content of this factor consists of a caring component of interpersonal relationships, including caring for and adapting to others, empathy, agreeableness, social responsibility, moral values, perception of being important to others and a spiritual experience of harmonious interconnectedness. It is reminiscent of Taylor et al.’s (2000) idea of a “tending” component in relationships.

Factor 4: Absence of Psychopathology (explains 8.61% of variance).

FORT - Collectivist Group

With an exploratory second order factor analysis (maximum likelihood method of factor extraction with varimax rotation) on the sub-scale scores of the black group, 2 factors emerged, and can be described from content of scales loading highly, as follows:

Factor 1: General Psychological Well-being (explains 31.34% of variance). This factor consists of intra-personal (cognitive, conative, affective, behavioral, self-, and spiritual) components, with high loadings of emotional intelligence, cognitive flexibility, creativity, hopefulness, self-efficacy, and absence of strong negative affect and physical symptoms. It includes inter-personal components such as the capacity to understand, respect and regulate own and others feelings in interpersonal relationships, and a spiritual component (i.e. the experience of an harmonious inter-connectedness of facets of the self). It seems as if a “giving” component is included in this GPW-factor.

Factor 2: Positive Experience of Social Context (OUTSIDE IN) (explains 14.90% of variance). This factor consists of automatic positive expectations of daily life and of others, the experience of support, satisfaction with life and positive experiences in social context. Positive affect and life satisfaction are thus related to an embedment in a social context. It may be that internal wellbeing and satisfaction emerge from bringing “the good outside in”.

Discussion

Results from factor analyses on total scale scores indicate similarities and differences in patterns of psychological well-being in the individualist and collectivist groups. A general psychological well-being factor was identified in both cultural groups, explaining a large percentage of the total variance. This general psychological well-being factor consists of intrapersonal, affective, cognitive, spiritual and physical facets. In individualist groups, this factor also includes interpersonal

and social facets. In the black / collectivist groups this general psychological well-being component includes also conative facets.

In individualist groups, a secondary conative, behavioral readiness factor is distinguished, characterized by general self-efficacy beliefs, goal / future-directedness and flexibility in behavior in order to reach goals. In the collectivist group a secondary social satisfaction factor clearly emerges that comprises of awareness of social support and satisfaction with life. Positive affect also to some extent, plays a role in this factor. Satisfaction with life is more strongly associated with social support in groups from a more rural area (FORT, POWIRS, THUSA), than in a group from an urban area (VAAL), although the same pattern of well-being exists in the latter case.

The patterns of psychological well-being and satisfaction with life thus differ somewhat in relatively individualist and relatively collectivist cultural groups. Satisfaction with life tends to cluster with intra-psychic well-being in more individualist cultural groups and with inter-personal factors in more collectivist groups. Whereas the general psychological well-being factor includes social facets and satisfaction with life in the case of individualist groups, awareness of social support and satisfaction with life emerged as a clear separate factor in collectivist groups. This is in line with the observation of Suh et al. (1998) that there may be a shifting basis of life satisfaction judgments across cultures, particularly in individualist vs. collectivist cultural contexts. The current study shows that satisfaction with life is closely linked to awareness of social support in collectivist contexts. This confirms the contention of Kitayama and Markus (2000 – in Diener & Suh 2000) that the very nature of what it means to be well takes culture specific forms. This pattern seems to be stronger in relatively rural or rural-urban areas than in an urban group where cultural blending, and individualization may have already taken place to a greater extent.

The identified social satisfaction factor reminds one of the Relatedness component in the Self-Determination Theory of Deci and Ryan (2000). The motivational behavioral readiness factor that emerged in the individualist groups may be linked to the Competence component of psychological well-being as conceptualized in the Self-Determination Theory of Deci and Ryan (2000). Thus, as far as the Self-Determination Theory of Deci and Ryan (2000) is concerned, the current findings seem to suggest that the Autonomy and Relatedness dimensions may overlap in individualistic cultural contexts, with the Competence component being a strong separate factor. In collectivist cultural contexts, the Autonomy and Competence components may overlap, with the Relatedness component being a strong separate factor.

In factor analyses on sub-scale scores, a general psychological well-being factor also emerged in both groups, as well as the same clustering of satisfaction with life with social support/satisfaction in the collectivist group as in analyses on total scale scores. These findings seem to support previous observations that satisfaction with life is more associated with self esteem in individualist cultures than in collectivist groups (Diener & Diener, 1995; Diener et al., 2003). The current study adds to this by indicating that satisfaction with life is strongly related to interpersonal satisfaction in an African collectivist group. This may indicate the extent to which specific cultural values may influence subjective well-being as hypothesized by Diener et al. (2003).

From the more detailed analyses of sub-scale scores different patterns of interpersonal well-being emerged within the individualist group (Getting vs. Giving) and between the individualist and collectivist groups (i. e. Inside-Out vs. Outside-In). The interpersonal component of psychological

well-being in the individualist group manifested as Getting/Receiving and Giving facets. These facets are reminiscent of the distinction made by Taylor, Kemeny, Reed, Bower, and Gruenewald (2000) between “befriending” and “tending”. Intra-psychic components (such as optimism or moral-ethical self) also loaded on the inter-personal well-being factors of the individualist group. This indicates that these interpersonal components can be viewed as determined by individual attitudes and preferences. Therefore it is described as a form of Inside-Out relating. In collectivist groups, the interpersonal component of psychological well-being is described as a Social Satisfaction factor, which is characterized by satisfaction with life, perceived social support, automatic positive expectations of others and daily functioning, and positive affect. This factor has the character of taking the good outside inside, i.e. an Outside-In pattern of interpersonal well-being.

Findings from analyses on data of the FORT project indicate that personality factors are linked to psychological well-being and satisfaction with life, but differently so in individualist and collectivist groups. In the individualist group Extraversion (as measured by a sub-scale of the NEO-PI-R) contributed significantly ($>.30$) to both the Getting and Giving components of interpersonal well-being, and less to the intra-personal component of psychological well-being. In this group Agreeableness, as personality dimension, loaded significantly on the Giving component of psychological well-being, and not on the Getting or general intra-personal well-being components. In the collectivist group Extraversion loaded significantly on both the general (intra-personal) and interpersonal well-being factors, but more so on the latter one. In this group Agreeableness contributed equally to intra- and interpersonal components of well-being. There may thus be an interaction between personality and cultural variables in the manifestation of psychological well-being and satisfaction with life.

Analyses of sub-scale data of the FORT project revealed that positive and negative affect play a role in both intra- and inter-personal components of psychological well-being. In both individualist and collectivist groups, positive affect contributed more to interpersonal well-being, and the absence of negative affect to intra-personal well-being. This finding supports the differential role of positive and negative affect in human functioning, and highlights the contribution of emotion in manifestations of psychological well-being as argued by Fredrickson (2001).

In so far as can be assumed that the current white and black (sub-) samples represent relatively more individualist and relatively more collectivist cultural contexts, similarities and differences in patterns of psychological well-being and satisfaction with life are found. This is in line with the contention of Oyserman et al. (2002) that the Individualist-Collectivist framework is a powerful explanatory tool for understanding variability in behavior of individuals. The current findings indicate that satisfaction with life is far more associated with social factors in African collectivist groups than with intra-psychological factors as is the case in individualist groups. This is in line with an African value system (see for example Bodibe & Sodi, 1997; Direko, 2002; Ebigbo, Oluka, Ezenwa, Obidigo & Okwaraji, 1996; Ikenobe, 1998). An alternative explanation may be that the association of satisfaction with life with social factors in the collectivist group is a reflection of a link between satisfaction with life and socio-economic status rather than with collectivism per se - the legacy of apartheid left most black communities socio-economically deprived. The latter explanation would, however be contradicted by findings from the POWIRS project where all participants were from a middle-income level.

Limitations of this study were, firstly, that individualism and collectivism as cultural orientations were not directly measured in the current samples, but assumed on descriptive and historical grounds. However, previous empirical studies as indicated give support for such assumptions. Secondly, the scales used were all originally developed in a western context. Although only reliable and valid indices were used as indicated in the original studies, further evaluation of construct equivalence as indicated by Van de Vijver and Leung (1997) may be of value. It is also possible that specific strengths and patterns of psychological well-being, not captured in this study, exist in collectivist cultural contexts. It is nevertheless significant that, despite these limitations, systematic differences in patterns of psychological well-being and satisfaction with life were found over several relatively more individualist and African collectivist cultural groups.

Implications of the current findings are that models of psychological well-being should take cognisance of the existence of various cultural patterns in psychological well-being; and that interventions to enhance psychological well-being must be sensitive to cultural context. Indigenous knowledge of what contributes to satisfaction with life should be integrated in efforts to promote healthy life styles and quality of life.

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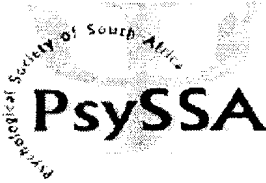
SECTION 4: ARTICLE 3

**A REVIEW OF THE PRACTICAL APPLICABILITY OF KNOWLEDGE FROM
POSITIVE PSYCHOLOGY / PSYCHOFORTOLOGY**

Submitted to the

South African Journal of Psychology

4.1 Guidelines for authors: *South African Journal of Psychology*



South African Journal of Psychology

Instructions to authors

Submitting a manuscript

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

Manuscript structure

- The manuscript should be no longer than 30 pages and no shorter than 10 pages.
- **First page:** The full title of the manuscript, the name(s) of the author(s) together with their affiliations, and the name, address, and e-mail address of the author to whom correspondence should be sent.

- **Second page:** The abstract, formatted as a single paragraph, and no longer than 300 words. A list of at least six key words should be provided below the abstract, with semi-colons between words.
- **Subsequent pages:** The text of the article. The introduction to the article does not require a heading.
- **Concluding pages:** A reference list, followed by tables and figures (if any). Each table or figure should be on a separate page. Tables and figures should be numbered consecutively and their appropriate positions in the text indicated. Each table or figure should be provided with a title (e.g., Figure 1. Frequency distribution of critical incidents). The title should be placed at the top for tables and at the bottom for figures.

Manuscript format

- The manuscript should be an MS Word document in 12-point Times Roman font with 1.5 line spacing. There should be no font changes, margin changes, hanging indents, or other unnecessarily complex formatting codes.
- American Psychological Association (APA) style guidelines and referencing format should be adhered to.
- Headings should start at the left margin, and should not be numbered. All headings should be in **bold**. Main headings should be in **CAPITAL LETTERS**.
- A line should be left open between paragraphs. The first line of a paragraph should not be indented.
- Use indents only for block quotes.
- In the reference list, a line should be left open above each reference. Do not use indents or hanging indents in the reference list.

Language

Manuscripts should be written in English. As the SAJP does not employ a full-time or dedicated language editor, authors are requested to send their manuscripts to an external language specialist for language editing before submission.

4.2 Manuscript: A review of the practical applicability of knowledge from positive psychology / psychofortology

**A REVIEW OF THE PRACTICAL APPLICABILITY OF KNOWLEDGE FROM
POSITIVE PSYCHOLOGY / PSYCHOFORTOLOGY**

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ABSTRACT

Positive Psychology / Psychofortology aims to understand and enhance positive aspects of human functioning and strengths. In this paper the applicability of knowledge from the domain of positive psychology /psychofortology was evaluated with specific reference to assessment, interventions, lifespan development and application in various contexts. Findings are that deductions from theory and experimental research in positive psychology found their way to practice, and were in some instances followed up by empirical evaluation of the effectiveness of interventions. Value can be added to assessment if positive facets and strengths also form part of an evaluation, be it for therapeutic, remedial, preventative and /or promotive purposes. More research, however, needs to be done on the reliability and validity of these scales in a South African context. Various intervention techniques with a positive focus can also be well applied in clinical settings. From a positive perspective therapy should not only reduce symptoms, but also explicitly build strengths and enhance the quality of life that is more than the absence of pathology. Positive interventions and capacity building based on theory and findings from experimental research in positive psychology are applicable over the whole life span, and especially so for people in more vulnerable life phases, namely children, adolescents, and the elderly. Interventions with children and adolescents also build strengths to enhance the possibility of future flourishing. Although positive psychology is a relatively new sub-discipline / movement in psychology, scientific progress in many areas has been made to such an extent that interventions are made in various contexts, and can contribute to changes at individual, community and public policy levels. Most of the findings are from a western context, and the applicability thereof in various cultural contexts needs to be explored. Some empirical validated specific strategies were highlighted, and recommendations for further research indicated.

Keywords: Positive Psychology; Psychofortology; practice; applicability; assessment; intervention; promotion; development; techniques.

A REVIEW OF THE PRACTICAL APPLICABILITY OF KNOWLEDGE FROM POSITIVE PSYCHOLOGY / PSYCHOFORTOLOGY

Positive psychology is a new domain or movement of research and practice in psychology (Linley & Joseph, 2004; Seligman, 1998, Seligman & Csiksentmihalyi, 2000), and focuses on the nature, dynamics and enhancement of psychological well-being and strengths. It has also been called “psychofortology” (i.e. the science of psychological strengths) in South Africa (Strümpfer, 2005; 2006; Wissing & Van Eeden, 1997; 2002). In the past decades the discipline of psychology has mainly focused on problems, psychopathology and the remediation thereof. In the last decade a new movement has developed in which the call to explore, understand and enhance positive aspects of human functioning and strengths came strongly to the forefront. Although there had already been an eye on positive aspects of human development and personality functioning for many years (e.g. Allport, 1961; Jahoda, 1958; Maslow, 1962; Masten, 1999; Rogers, 1957; 1961), it has only been in the last decade that research in the domain of psychological strengths has rapidly expanded. When taking recent empirical findings and the development of many new constructs and theories into account (cf. Aspinwall & Staudinger, 2003; Keyes & Haidt, 2003; Peterson & Seligman, 2004; Snyder & Lopez, 2002), the question now arises as to what the scientifically based applicability of these findings and models may be with regard to the prevention of problems and the enhancement of the quality of life for the psychological health and well-being of individuals, groups and organisations. At the same time it would be quite important to observe the role of culture-specific variables. Zeldin (2000) noted the strong push for research to be more socially relevant, for practice to be based on sound research, and for researchers and practitioners to work more closely together. In 2002, Keyes and Lopez argued that the utility of a positive approach to the diagnosis and treatment of mental illnesses remained an unrealised tool: “The science of mental illness has produced effective treatments for more ‘broken-down’ people; it remains ineffective for preventing more people from ‘breaking down’” (Keyes & Lopez, 2006: 46). In 2006, Lopez et al. again call for a stronger focus on positive facets of human functioning in research and practice while pointing out that only approximately 29 % of scholarly contributions in counselling psychology had a positive focus. In this paper the practical applicability of knowledge from the domain of positive psychology /psychofortology will be evaluated with specific reference to assessment, interventions, lifespan development and application in various contexts, while highlighting some specific strategies used.

ASSESSMENT

Although many scales measuring specific facets of psychological well-being were developed during the eighties and nineties, the first systematic handbook on positive psychological assessment was published in 2003 by Lopez and Snyder, reflecting the state of the art and science. They propose a balanced assessment approach in which evaluation of strengths, healthy processes and fulfilments balance the evaluation of weaknesses, unhealthy processes and voids taking contextual variables into account (Lopez & Snyder 2003). They propose the use of the so-called 'forefront approach' of exploring both liabilities and assets within the person as well as the environment. They point to the incompleteness of the well-known and well-used DSM-IV diagnostic framework, as environmental resources, well-being, and psychological strengths are not addressed. To remedy this problem they suggested alterations to the DSM –IV axis IV (psychosocial and environmental problems) and V (global assessment of functioning) as well as creating an axis VI to tap psychological strengths associated with therapeutic change and positive functioning.

In the handbook of Positive Psychological Assessment (Lopez & Snyder, 2003) measuring instruments are systematised and discussed according to cognitive models (including measures of learned optimism and cognitive style, hope, self-efficacy, problem-solving appraisal, locus of control, creativity, wisdom, and courage), emotional models (including measures of positive emotion, self-esteem, romantic love, and emotional intelligence), interpersonal models (including measures of empathy, attachment security, forgiveness, humour, and gratitude), religious and philosophical models (including measures of various religious constructs and moral judgement maturity), and models of positive processes, outcomes and environments (including measures for career exploration, vocational interest, work values, work satisfaction, and career maturity, proactive coping, and adult subjective well-being).

From an evaluation of the above-mentioned handbook, it is clear that it provides a wealth of knowledge on existing measures of positive facets, and that it can contribute to a scientific basis for practical assessments. It is also important for future research that the editors identified a conspicuous lack of measures pertaining to positive processes, outcomes and environments. However, this handbook seems to focus more on American literature and therefore inclusion of contributions from other sources, e.g. European and other literature may help to fill the identified void to some extent. For example, important contributions to the measurement of positive processes in a work context

have been made by Schaufelli and co-workers (Schaufeli, 2005; 2006; Schaufeli & Bakker 2004) from the Netherlands with the development of the Utrecht Work Engagement Scale (UWES) and by Shirom (2005) from Israel with operationalisation of “vigor” as construct. Reflecting on the classification of measures decided upon by Lopez and Snyder (2003), it is noted that a conative category is missing. Introductory handbooks on psychology usually distinguish cognitive, affective and conative processes as basic human functions. Inclusion of a category for the measurement of conative or motivational aspects may help to alleviate the somewhat dubious classification of some measures, for example, measures of courage, hope and even self-efficacy might just as well be viewed as conative processes instead of cognitive processes. It is, however, necessary that further research should determine the possible overlap among measures and differentiation of underlying factors that are being measured (Wissing, Wissing, Du Toit and Temane (manuscript submitted). Lopez and Snyder (2003) suggested some modifications to the DSM-IV with a view to the inclusion of positive aspects. It can, however, also in future be considered to develop a complete new 5 axis ‘diagnostic’ model of positive characteristics and processes, for example: Axis 1 – Patterns and characteristics of wellness and optimal functioning; Axis 2 – Positive personality dispositions (such as optimism); Axis 3 – Biological strengths and buffers for immunological resilience; Axis 4 – Psychological and environmental resources; Axis 5 - Highest level of general psychological well-being. Another possible consideration is that we may need to think about psychological well-being more in terms of a hierarchical model or in line with different levels (‘dispositional’, ‘personal concerns’ and ‘life narratives’) as proposed for personality functioning by McAdams (1994; 1995; 1996), and suggested on empirical grounds by Wissing, Wissing, Du Toit and Temane (manuscript submitted).

Information on several well-researched measures of positive psychological facets are available on Seligman’s web-site www.psych.upenn.edu/seligman/ppquestionnaires.htm and elsewhere. These include, amongst others, the Attributional Style Questionnaire (ASQ); Curiosity and Exploration Inventory (CEI); Gratitude Questionnaire – 6 (GQ-6); Older Adults’ Attributional Style Questionnaire (OAASQ); Personal Growth Initiative Scale (PGIS); Psychological Well-Being Scales (PWBS); Quality of Life Inventory (QOLI); Satisfaction with Life Scale (SWLS); Subjective Happiness Scale (SHS); Transgression-Related Interpersonal Motivations Inventory (TRIM); and the VIA Inventory of Strengths (VIA-IS). To this list can be added the Changes in Outlook Questionnaire (CiOQ) with which positive and negative changes in the aftermath of adversity can be

measured. The general availability of these measures may contribute to the necessary validation thereof in various cultural contexts, and comparability of findings with these measures in various research projects. Few of these scales had been validated for use in a South African context.

The recent development of the Value-In-Action classification system and the Inventory of Character Strengths (VIA-IS) by Peterson and Seligman (2004) and others rendered an important contribution to assessment in the domain of positive psychology. Character is approached as a multidimensional construct, existing of a family of positive traits that are manifested in thoughts, feelings and behaviours. Peterson and Seligman (2004) distinguish 6 universal value clusters, and within each of these specific character strengths (see Biswas-Diener, 2006 and Shimai, Otake, Park, Peterson & Seligman, 2006 for cross cultural observations on virtues and strengths). These virtue clusters and their embodying character strengths are: (i) *wisdom and knowledge*: curiosity, love of learning, open mindedness, creativity, perspective; (ii) *courage*: valour/bravery, persistence, integrity, zest/vitality; (iii) *humanity and love*: love, kindness, social intelligence; (iv) *justice*: citizenship, fairness, leadership; (v) *temperance*: self-regulation, prudence, forgiveness and mercy, modesty and humility; (vi) *transcendence*: appreciation of beauty and excellence, gratitude, hope, humour and playfulness, spirituality. These character strengths are associated with other indices of well-being (Park, Peterson & Seligman, 2004; Peterson, Park & Seligman, 2006). The VIA-IS is available on internet for completion (www.psych.upenn.edu/seligman/pos.psy.htm) after which a report on own strengths can automatically be obtained. During the developmental phase the scale and scoring processes were open for scrutiny, but after completion it is now copyrighted. Recently a youth form (VIA-Youth) of the VIA-IS was also developed by Park and Peterson (2006). In the current phase of seemingly moral degeneration, the VIA-IS is a valuable tool to bring character strengths to the forefront as well as for the evaluation of interventions to promote positive youth development that is currently a cutting edge focus (Catalano, Berglund, Ryan, Lonczak & Hawkins, 2002; Delgado, 2002; Lerner, Almerigi, Theokas & Lerner, 2005; Lopez & McKnight, 2002; Park & Peterson, 2006; Steen, Kachorek & Peterson, 2003). Seligman (2002a) argued that knowledge of own strengths provide the opportunity to use these in the most important life domains as often as possible, and that more frequent use of these strengths may contribute to greater life satisfaction and well-being. Park and Peterson (2006) indicated the unique benefits of the VIA-Youth for practice and applied research. The validity of the VIA-IS as well as the VIA-Youth, however, also needs to be explored further in various cultural contexts. Khumalo, Wissing and Temane (2006) reported an emic underlying 3-

factor structure for the VIA-IS instead of the six factors hypothesised in the theoretical model, in the case of a South African relatively more collectivist cultural context, and suggested that character strengths in an African context needs to be explored further - in particular also with qualitative research methods.

Two very promising scales for measurement of positive facets of psychological functioning are the Psychological Well-being Scales (PWBS) of Ryff and her colleagues (Ryff, 1989a; Ryff & Keyes, 1995; Ryff & Singer, 1996), and the Social Well-being Scales (SWBS) of Keyes (Keyes, 1998). The PWBS has a sound theoretical embedment, is used in many studies, and is also implemented in Well-being therapy as developed by Fava and colleagues (Fava, 1999; Fava & Ruini, 2003; Ruini & Fava, 2006). The SWBS may be highly applicable in the South African context where social well-being might be considered more important in a relative collectivist cultural context than the typical individualist notions of well-being such as self-actualisation (Wissing, Wissing, Du Toit & Temane, 2006).

Some of the measures of positive psychological facets that had been explored in various South African studies with specific reference to their applicability and psychometric properties, are for example the Sense of Coherence Scale (Antonovsky, 1979; 1993), the Satisfaction with Life Scale (Diener, Emmons, Larsen & Griffin, 1985), and the Affectometer 2 (Kammann & Flett, 1983), (Strümpfer & Wissing, 1998; Wissing & Van Eeden, 2002; Wissing et al., 1999; Wissing, Wissing, Du Toit & Temane, submitted, - see manuscript 1). The psychometric properties of scales, implemented in an African context, varied in these studies from acceptable to totally unacceptable.

It can be concluded that much value can be added in practice when assessments of positive facets or strengths also form part of an evaluation, be it for therapeutic, remedial, preventative and /or promotive purposes. Such an approach will be in line with current thinking on comprehensive mental health as espoused by Keyes (2005). However, much more research needs to be conducted on the reliability and validity of these scales in a South African context.

INTERVENTIONS

At this stage of developments in positive psychology where several theories have been formulated and experimental results are coming in, the stage is set for application of knowledge from positive

psychology in practice to enhance the quality of people's lives, and to evaluate the effects of these interventions. The book *Positive Psychology in Practice*, edited by Linley and Joseph (2004), was the first general resource in the field of interventions, pulling together information on the state of the art. From this review on theory, research and application it is clear that much had been done, but also that much more needs to be done.

From an analysis of the reviews in Linley and Joseph's (2004) book, it can be concluded that the fundamental assumptions of positive psychology, its theories, methods, strategies and techniques applied in practice, are suitable to both reduce symptoms of pathology, and enhance quality of life and well-being of 'normal' people. Applications are found in various settings. Maddux, Snyder and Lopez (2004) explicitly pointed out that a distinctive feature of positive psychology is that it brings benefit to many people, and not only to the troubled few. Another important conclusion that can be drawn from reviews in the above-mentioned volume edited by Linley and Joseph (2004) is that conceptualisations and applications from a positive psychology perspective, should take more cognisance of cultural and social contexts. The current positive psychology concepts are to a great extent a reflection of western value patterns. Jørgensen and Nafstad (2004) argued that a multicultural perspective is an important ethical imperative for research and practice in positive psychology.

In this section on "Interventions" attention will primarily be focused on a review of research with regard to the application of positive psychology in clinical settings and specific therapeutic strategies developed (other interventions and promotive strategies also applicable in non-clinical settings will be highlighted in the following section on application of positive psychology over the life span and in various contexts).

Seligman (2002b) and Seligman and Peterson (2003) are of the opinion that much of what made therapy successful as was documented in the past, actually was intuitive application of principles and practices explicated in positive psychology by good therapists, for example, the instilling of hope and the building of strengths. Previously, such strategies were not recognised or named, but now they can be named and trained from the perspective of positive psychology. Seligman (2002b) contends that the so-called non-specifics of effective psychotherapy found thus far in research on the effectiveness of psychotherapy, should be re-conceptualised in terms of deep strategies and tactics. "Tactics" of good psychotherapy refer, for example, to aspects such as paying attention, rapport,

trust, paying for services, and other 'tricks of the trade', while "deep strategies" would include all techniques of positive psychology, inter alia, instilling hope, telling life stories and building buffering strengths such as courage, optimism, perseverance and finding meaningfulness. Joseph and Lindley (2004) contend that classic therapies based on the therapeutic assumption of an organismic valuing process and an actualising tendency, such as that of Rogers (1957; 1961) and Frankl (1963) can be viewed as "positive therapies". They indicate the conceptual overlap between constructs that form part of Rogers's "necessary and sufficient conditions" for facilitation of growth in clients (i. e. congruence, empathy, and unconditional positive regard), and constructs used in models from positive psychology (e.g. emotional intelligence).

Joseph and Linley (2004; 2006) further propose that the idea of an actualising tendency as found in Rogers's approach, provides a conceptual backdrop for understanding the continuum between ill-being and well-being, which is an important assumption from a positive psychology perspective. Joseph and Linley's (2006) conceptualisation of positive therapy is not a new theory, but actually only an indication that Rogers's client-centered approach can be viewed as a positive therapy. The authors also suggest that much of the training of clinicians today focuses too much on diagnosis and technique, and that more emphasis should be placed on the development of emotional intelligence of the therapist, and his/her ability to develop authentic relationships as indicated in Rogers's theory.

In recent years there has been an upsurge of interest in specifically positive therapies and positive approaches to therapy. Some of these are in an early conceptual and application phase, whereas a small number are well-developed with a strong theoretical base and research evidence coming in on its efficacy. One of the 'positive approaches' is *mindfulness-based therapy* (Brown & Ryan, 2003; Langer, 2002). Mindfulness-based therapy, linked to the Self-determination theory of Ryan and Deci (2000), foster self-awareness and the enhancement of healthy self-regulation in various domains (Brown & Ryan, 2003; 2004). From another angle Hamilton, Kitzman and Guyotte (2006) proposed that mindfulness is the link between cognitive therapy and positive psychology: mindfulness meditation enhances positive adjustment by strengthening meta-cognitive skills and through changes in schemas related to emotion, health and illness. This proposition still needs to be tested empirically.

Snyder's 'Hope Theory' forms the basis for *hope therapy* and various hope accentuation strategies (Lopez, Floyd, Ulven & Snyder, 2000; Snyder, 2000; Snyder, Feldman, Taylor, Schroeder &

Adams, 2000). Essential categories of formal and informal strategies for hope accentuation are (i) *hope finding* (i.e. strengthening client's expectations for good outcomes, which will instill hope for change, and simultaneously enhance the therapeutic bond between client and therapist), (ii) *hope bonding* (i.e. forming a strong, hopeful and emotionally charged connection or therapeutic alliance, that forms the basis for collaboration and engaging in productive tasks), (iii) *hope enhancing* (these strategies typically enlist clients in tasks designed to conceptualise reasonable and clear goals, develop various pathways to goal attainment, summon energy to pursue goals, and to reframe obstacles as challenges to overcome), and (iv) *hope reminding* (i.e. the promotion of effortful daily use of hopeful cognitions). Hope facilitation is a spark for, and pathway to change, which in turn may lead to more hope for solving problems and creating well-being and a good life.

Linked to the idea of hope is the construct "future-directedness" and "time-therapy" (Boniwell & Zimbardo, 2004; Lens, 2006). Boniwell and Zimbardo (2004) suggested a *balanced time perspective* therapeutic approach for people with cognitive distortions associated with recurrent depression. Time perspective is expressed in an individual's orientation, attitudes and experiences of the past, present and future, and has cognitive, emotional and social components. It is influenced by a host of factors such as socialisation, cultural values, education, and others. Individualistic cultures tend to focus more on the future than collectivist cultures. Boniwell and Zimbardo (2004) hypothesised that a flexible, balanced time perspective, depending on the situation's demands and individual's needs and values, will be optimal. However, further research is necessary to establish whether a balanced time perspective is related to well-being in various contexts. A relatively well researched approach to remediate and prevent depression is *optimism training* (Gillham & Reivich, 2004; Riskind, Sarampote, & Mercier, 1996; Seligman, 2002b; Seligman, Reivich, Jaycox & Gillham, 1995). In the next section more attention will be paid to optimism training.

It has long been known that facilitation of *social support* may enhance and protect physical and mental health (e.g. Taylor & Sherman, 2004; Thoits, 1986). In recent times the construct *post-traumatic growth* was coined, to indicate positive changes that were reported by some individuals as a result of their attempts to cope with the aftermath of highly stressful and traumatic life events (Tedeschi & Calhoun, 1996; 2004; Larsen, Hemenover, Norris & Cacioppo, 2003). These experiences of meaningfulness and deeper awareness on personal, interpersonal, and spiritual levels, were not necessarily accompanied by happiness or positive feelings. Trauma survivors who can

disclose their cognitive processing of the trauma in a social supportive environment, are less likely to experience depression, and more likely to reach higher levels of post-traumatic growth. The experience of post-traumatic growth may become woven into their life stories as positive turning points. Steps hereto are cognitive engagement, cognitive processing, and cognitive change as part of the narrative reconstruction in the context of a social environment that is supportive, respectful, and open to recognition of growth manifesting as part of the client's struggle.

Whereas Tedeschi and Calhoun (1996; 2004) proposed a comprehensive functional-descriptive theory of post-traumatic growth, Joseph and Linley (2005) proposed a social-cognitive model of growth through adversity, based on organismic valuing processes. This organismic valuing theory of growth posits that people are intrinsically motivated toward rebuilding their shattered assumptive worlds in a way that will include the trauma-related information, and explains both the states of disorder (intrusion and avoidance) and growth that are characteristic of the post-traumatic cognitive-emotional processing. When the social environment is supportive and can meet the person's need for autonomy, competence and relatedness, the organismic valuing process is promoted, and the person can start to accommodate the traumatic information. At first there is a search for meaning in the sense of comprehensibility. Achieving and assimilating this, an openness to search for meaning in the existential sense of significance, will ensue. The positive accommodation of the traumatic event and development of meaning as significance, reflect growth. Joseph and Linley (2005) indicate that this process will not make the individual necessarily happier (a depressive reaction may be more realistic and appropriate), but, although sadder, the person may feel wiser. Typical characteristics of growth will be closer relationships, better self-acceptance, and deeper spirituality. Joseph and Linley (2005) hypothesise that therapeutic interventions to promote growth after trauma, might in the long run, also enhance subjective feelings of well-being. The therapist who listens attentively to the client and assists him/her to explicate more clearly his/her own new meanings, facilitates the organismic valuing process and accommodation of trauma-related information. This model of Joseph and Linley (2005) has explanatory capacity, but still needs to be empirically validated. A valuable assessment instrument in research on psychological changes in the aftermath of trauma may be the Changes in Outlook Questionnaire evaluated by Joseph et al. (2005).

A well-developed and well-researched therapeutic approach that emerged from a positive psychology perspective is Fava's *Well-being Therapy* (WBT) (Fava, 1999; Fava, Rafanelli, Cazzaro,

Conti & Grandi, 1998; Fava & Ruini, 2003; Ruini & Fava, 2004; Ruini & Fava, 2006). WBT is based on Ryff's multidimensional model of psychological well-being (Ryff, 1989a; Ryff & Keyes, 1995), and includes cognitive behavioural techniques. The unique ingredient is to foster identification and enhancement of positive experiences – the focus of self-observation is thus well-being, and not distress. The goal of therapy is to enhance the client's level of psychological well-being in the relevant dimensions, against the backdrop of keeping Ryff's model in mind (dimensions in Ryff's model are autonomy, personal growth, environmental mastery, purpose in life, positive relations, and self-acceptance). WBT is a short-term, structured psychotherapeutic strategy (approximately 8 sessions of 30-50 minutes each, scheduled weekly or every other week) that emphasises self-observation with use of a structured diary and interaction between client and therapist. The process of therapy usually unfolds as follows: The *initial sessions* (1-3) focus on the identification of episodes of well-being, however short they might have been. Clients are requested to report in a structured diary the feelings of well-being they could have noticed, the situation or circumstances surrounding the episode, and rate the intensity thereof on a scale of 0-100 (usually depressed patients indicate that nothing was noticed – but they in any case need to monitor further). Once instances of well-being have been recognised, the client is encouraged during the *intermediate sessions* (2-3) to identify beliefs and thoughts that lead to premature interruption of the feeling of well-being. In this phase the therapist can identify dimensions that are saturated or unaffected by irrational or automatic thoughts, will challenge these thoughts with appropriate questions, and will also encourage activities that are pleasurable and likely to elicit well-being. The focus remains on the client's self-observation and identification of moments of well-being. During the *final sessions* (2-3) the therapist introduces information relevant to the various dimensions as hypothesised in Ryff's model, but only when the material recorded by the client lends itself to it, and when the client's behaviour shows impairment in these areas. Thinking errors and alternative interpretations are also discussed.

WBT has been applied as a relapse-prevention strategy in the case of mood and anxiety disorders, as an addition to cognitive-behavioural packages for (pharmacological) treatment-resistant affective disorders, in the case of body image disturbance disorders, obsessive-compulsive disorders, and to reduce vulnerability to medical illness and enhancement of coping with chronic diseases. Several studies demonstrated the clinical efficacy of this approach (Fava, 1999; Fava & Ruini, 2003; Ruini & Fava, 2004; Ruini & Fava, 2006). Ruini and Fava (2004) hypothesise that WBT could play an

important role in preventive and facilitative interventions in the case of children and adolescents. It may help to protect against future adversity and health-risk behaviours such as alcohol and drug abuse. They also suggest that WBT may be well-suited to increase subjective well-being in the elderly, but future studies still need to test the efficacy of WBT in this regard, in comparison to other interventions. New conceptualisations of blends of cognitive behavioural therapy and positive psychology provide indirect support for the cognitive behavioural background of WBT (e.g. Ingram & Snyder, 2006; Karwoski, Garratt & Ilardi, 2006).

Recently Smith (2006) proposed a specific “*Strength-based counseling model*” which is recommended specifically for counselling of at-risk youth. This model assumes resilience (i.e. the capacity to bounce back after setbacks) in people, and focuses on capacity and asset building across the lifespan. It emphasises that all strengths are culturally based, and that this should be taken into account and utilised in the counselling process. She defines *strengths* as “that which helps a person to cope with life or that which makes life more fulfilling for oneself and others” (Smith, 2006: 25). Smith (2006) identified 10 categories of strengths that can be taken into consideration during counselling, namely wisdom and spiritual strengths, emotional strengths (such as insight, optimism, perseverance, hope, finding purpose in life), character strengths (e.g. integrity, honesty, discipline, courage), creative strengths (e.g. ability appreciate the arts), relational and nurturing strengths (i.e. ability to communicate and form meaningful relationships with others: compassion, cooperation, tolerance, forgiveness, empathy), educational strengths (level of educational attainments), analytical and cognitive strengths, (e.g. problem-solving, decision making), work-related strengths (e.g. ability to secure employment and provide for family), ability to secure and make use of social support and community strengths, and finally, survival skills (i.e. the ability to avoid pain and maintain physical survival in a society).

Smith’s (2006) theoretical framework for this strength-based counselling model is offered in terms of 12 propositions that outline the basic principles, and 10 stages of the proposed counselling process. Propositions are: (1) humans are self-righting organisms who engage in a continuing pattern of healthy or unhealthy adaptation to their environment; (2) people develop strengths through internal and external forces, and as part of a driving force to meet basic psychological needs; (3) each individual has the capacity for growth, strength development and change; (4) levels of personal strengths vary, ranging on a continuum from low to high; (5) strengths are the end

products of a dialectical process involving a person's struggle with adversity; (6) human strengths are buffers against mental illness, and keep mental disorders under control; (7) when counsellors focus on strengths rather than deficits, weaknesses, or problems, clients are more motivated to change; (8) encouragement is a key source to effect behavioural change in the client, and is intentionally provided by the therapist as a form of positive regard; (9) the client's efforts and struggles to deal with his or her problems and issues are consciously and intentionally honoured by the therapist in a respectful atmosphere; (10) hope mobilises individuals, and clients are therefore motivated to change dysfunctional or self-defeating behaviour because they, in doing so, will effect the desired life changes and anticipated rewards; (11) the strength-based counsellor designs counselling sessions to help clients heal from their pain, as they understand the process and healing rituals of healing from pain and adversity; (12) race, class and gender are organising elements in every counselling interaction. The 10 stages of Smith's (2006) strength-based counselling are (1) *creating a therapeutic alliance*, (2) *identifying strengths* (for example by questions such as "what positives would you like to continue in your relationship?" "how have you managed to survive?" "what do you do well?"), (3) *assessing presenting problems* (for example by questions such as "what's your theory about why you have this problem?", "how can I be most helpful to you?"), (4) *encouraging and instilling hope* (amongst others through use of the hope chest-technique – i.e. the therapist invites the client to imagine a hope chest, and describes three hopes that they would like to take out, how the granting of these hopes will change their current situation, and what changes they need to make to sustain the changed situation); (5) *framing solutions* (engage in solution-building conversations with clients, i.e. discuss how the client has tried to solve the problem rather than discussing the problems themselves; "what works for you, even for a little while?"; "what was going on in your life when the problem did not exist?"; facilitating forgiveness); (6) *building strength and competence* (e.g. courage, insight, optimism, putting troubles in perspective, perseverance, finding meaning; recognising and utilising of internal and external assets); (7) *empowering* (i.e. recognising and promoting the client's competent functioning through collaboration between counsellor and client during counselling); (8) *changing* (e.g. the counsellor engages with the client in change talk – a productive dialogue that helps clients become aware of what modifications they must make to improve their lives, describe what strengths or resources they have to make those changes, establish realistic and attainable goals, search for meaning in life, and utilisation of reframing as technique: this includes recognition, acceptance, understanding, know that there is a choice for how to view

adversity, change the meaning ascribed to the situation, derive a lesson from the painful event, redefine the self around own strengths and talents, and take constructive action); (9) *building resilience* (e.g. build competence to break negative life cycles, develop good problem-solving, and coping skills); (10) *evaluating and terminating* (therapist and client evaluate and honour the progress that has been made, and determine whether the client has accomplished his/her goals, and what client strengths and environmental resources had been most significant in helping them achieve their goals).

Although interesting, Smith's (2006) model seems to be more a description and systematisation of previous findings in the literature than a new, coherent, and well-integrated model. Some conceptualisations in this model can also be challenged, for example her description of emotional strengths included facets such as insight, optimism, perseverance, hope, finding purpose in life. Some of these facets can rather be viewed as cognitive or conative in nature. There are other more appropriate "emotional strengths" reported in the positive psychology literature, such as affect balance, emotional intelligence. Empirical investigation is necessary to evaluate the merit of Smith's model. At this stage it can rather be viewed as a heuristic description, than as a true explanatory model or theory.

Another recently proposed positive therapeutic intervention is Frisch's (2006) Quality of Life Therapy (QOLT), in which a life satisfaction approach is applied and learning, helping and creativity are emphasised. This approach is built on cognitive-behavioural and activity theories, and integrates positive psychology interventions that can be used with both clinical and non-clinical populations. The theoretical pillars/principles or *tenets of contentment* of QOLT are (1) Inner Abundance i.e. "feeling deeply calm, rested, centred, loving, alert, and ready to meet the challenges of the day and life after caring for oneself in a thoughtful, loving, compassionate, and comprehensive way" (Frisch, 2006, p. 78); (2) Quality Time, i.e. time devoted to the relationship with the self; and (3) Finding a Meaning / a Goal. To accomplish these tenets of contentment the client is given exercises that focus on what is being done well. Clients are taught to make happiness a habit; learn to forgive; be optimistic; to find and cultivate 'expert friends'. Clients are taught to put their efforts and time in line with their values. Frisch (2006) offers strategies and an abundance of techniques to be used as part of his CASIO model to boost satisfaction with life in various domains of life as measured by the Quality of Life Inventory (QOLI) developed by him. The CASIO model

(C=Circumstances; A=Attitude; S=Standards; I=Importance; O=Other areas) assumes that a person's degree of satisfaction with a specific area of life reflects the gap between what he/she wants and has, and is made up by the objective circumstances in an area, the person's attitude towards, and perception and interpretation of the area in terms of personal well-being, evaluation of fulfilment in the area based on own standards, the importance of the area for the person, as well as overall satisfaction with other areas of life that are not of immediate concern. Frisch's book as well as its accompanying Toolbox CD (Frisch, 2006) is a valuable resource for the practitioner, providing copies of exercises, handouts and worksheets. Frisch's (2006) model is an example of a descriptive, eclectic approach including many existing and new techniques aimed at facilitating a higher quality of life in various domains of life. It is, however, not a fully developed explanatory model. Although much research has been done on the QOLI as measuring instrument, further empirical studies on the effectiveness of application of this therapeutic model (QOLT) in practice, need to be conducted.

It can be concluded that many principles and techniques from positive psychology can be well applied in clinical settings. There is now strong cognizance that therapy does not only need to reduce symptoms, but also that it should intentionally build strengths and enhance the quality of life that is more than the absence of pathology. However, few coherent specific positive-approach models have been developed and empirically tested for their effectiveness in clinical settings. Many of the positive approaches offered, are actually only applications of positive constructs and techniques aimed at facilitation of positive outcomes, or indications of existing psychotherapeutic approaches and techniques that can be considered part of "positive therapies". Currently the Well-being Therapy model of Fava (Fava, 1999; Fava & Ruini, 2003) is the most conceptual coherent model, and also the best empirically researched approach. Several empirical studies supported its effectiveness in comparison to other approaches. Further research in this regard can be conducted for utilisation of this approach with various clinical populations, and specifically also for its applicability in various non-western contexts.

PROMOTION OF PSYCHOLOGICAL WELL-BEING OVER THE LIFE-SPAN

Enhancement of psychological well-being is important and possible over the whole life-span. However, from the literature it can be gathered that children, adolescents and older people are viewed as the most vulnerable groups, and especially important target groups for preventative

positive interventions. Positive interventions and capacity building in children and adolescents may not only have remedial and preventative effects, but may also include building strengths to enhance the possibility of future flourishing (cf. Keyes, 2005). Therefore this review will mainly focus on research referring to these phases of life, although research on promotion of specifically character strengths in young adults (mainly students), will also be highlighted.

From a developmental perspective, Masten (e.g. Masten, 1999) and Lerner (e.g. Lerner, Brentano, Dowling & Anderson, 2002; Lerner, 2004) provided major inputs in the facilitation of positive developments in *children and adolescents*. Masten (1999; 2001) and Yates and Masten (2004) implemented a resilience framework in the practice of positive psychology with at-risk children. Yates and Masten (2004) pointed out that it has long been known that some children in high-risk environments achieve positive developmental outcomes despite trauma and adverse experiences. Understanding naturally occurring resilience can inform interventions aimed at fostering healthy development among *children* with burdens of risk and adversity, but practice may also inform resilience theory and research. A resilience approach in positive psychology stresses the importance of promoting competence in addition to reducing the effects of adversity on children. Protective as well as vulnerability factors and their interaction are taken into account, and its focus on processes helps to understand causal mechanisms. The resilience approach can inform the development, implementation and evaluation of intervention and prevention programmes, as well as policies to promote positive adaptation among at-risk populations. Yates and Masten (2004) point to three categories of resources that protect children experiencing adversity, as found in previous research, namely: (1) *child characteristics*, such as flexible coping strategies and problem-solving skills, a locus of control that helps to attribute negative experiences to external factors, capacity to value own strengths and assets, intelligence, a sense of humor, academic and social competence; (2) *family characteristics*, such as warmth, sensitivity, cohesion and nurturing kinship; and (3) *community characteristics*, such as high-quality educational facilities, nurturing and attentive teachers, safe housing and neighbourhoods, and role models or mentors. From a resilience perspective, early intervention (in the first 5 years of life) is necessary for building positive and resilient adaptations, because this period is especially sensitive for modifiable protective processes (such as high quality care-giving). It still needs to be understood how adversity and competence vary across different ecological and cultural contexts (Yates & Masten, 2004).

The development of positive cognitive attributional styles, optimism and hope is important in facilitation of healthy development in children. Optimism training explicitly makes use of cognitive techniques that are intended to enhance positive thinking and optimistic thought content (Riskind & Mercier, 1996). Gillham and Reivich (2004) explored ways in which hope and optimism could be promoted in young people through a structured, school-based intervention, named the Penn Resiliency Program (PRP). The PRP reduced symptoms of depression and anxiety sustainable through the promotion of hope and optimism. The PRP is a cognitive-behavioural intervention (Gillham & Reivich, 2004; Seligman, Reivich, Jaycox & Gillham, 1995), and it utilises well-known techniques and skills from cognitive behavioural therapy such as identification of the link between thoughts, feelings and behaviours, identification of explanatory styles (me vs not me; always vs not always; everything vs not everything), “putting it in perspective”, goal setting, assertiveness and negotiation training, and techniques from Snyder’s hope therapy. Gillham and Reivich (2004) suggest that in addition to the above-mentioned school-based programme children also need interventions that nurture friendship and family relationships, and that promote teamwork and community involvement if hope and optimism are to be sustained. Structured interventions are only adequate if they are embedded in supportive environments. Earlier Seligman, Reivich, Jaycox and Gillham (1995) indicated that the PRP had two main components, namely a cognitive one and a social one. Children were firstly taught that thoughts are verifiable and changeable. They learn to monitor what they are telling themselves, and to evaluate the accuracy of their own pessimistic thoughts. Secondly, children were taught how to deal with interpersonal conflicts and solve social problems. This programme had an important impact to lessen depression and enhance optimism. Seligman et al. (1995) indicated that teachers and parents need to be involved to enhance the sustainability of the effects of such a programme. Such programmes are important because they are also preventative and may help to support youth before problems develop.

In applied developmental science there is a strong thrust to integrate research and practice to understand and strengthen positive development in *adolescents*, particularly through community involvement (Zeldin, 2000). Various streams of inquiry and practice are converging in promoting positive youth/adolescent development, for example the positive youth development (PYD) approach (Catalano, Berglund, Ryan, Lonczak and Hawkins, 2002; Delgado, 2002; Lerner, Almerigi, Theokas & Lerner, 2005), the assets approach of the Search Institute (Benson, 2003; Scales, Benson, Leffert, Blyth, 2000; Theokas, Almerigi, Lerner, Dowling, Benson, Scales & Von

Eye, 2005) and positive psychology (e.g. Caprara, Steca, Gerbino, Paciello & Vecchio, 2006; Larson, 2000; Larson, Jarret, Hansen, Pearce, Sullivan, Walker, Watkins, & Wood, 2004; Shogren, Lopez, Wehmeyer, Little & Pressgrove, 2006).

Larson (2000) and Larson et al. (2004) indicate that school curricula are focused on promotion of a limited number of cognitive skills, while adolescents need many other skills, competencies and resources, such as initiative, motivation, connections with adults, and multicultural competencies, if they are to be prepared to become vibrant, psychologically healthy adults who can also contribute to the well-being of the society. Larson (2000) contends that the development of initiative is an important part of positive youth development, and that the context best suited for the development thereof, is structured voluntary activities in the community. Organised youth activities provide a context where the youth can be active producers of their own development with guidance by youth leaders/ facilitators. Larson et al. (2004) qualitatively explored the developmental processes that occur within youth during such activities in three different youth programmes over 3-4 months. Involvement in structured, organised youth activities contributed to several processes: (1) the *development of initiative* (i.e. the capacity to get things done – organisation of efforts over time to achieve a goal). Initially, initiative was difficult to develop, and youth had limited skills to develop and execute plans. During the programmes youth reported that they learned to start early, manage their time and that hard work pays off. The ability for initiative transferred to other parts of their lives; (2) *motivation transformed* and became more intrinsic: the youth began to experience the work done as intrinsically rewarding. Young people learned to enjoy the work because they had opportunities to select activities that are novel, fresh, personally enticing, and discovered the match between challenge and skill in a supportive environment; (3) adolescents formed *personal relationships with adults* who provided social capital. They reported the experience of these relationships as opening up new worlds for them, opening their eyes, and bringing them out of their shells; (4) the young people *learned to bridge differences*, i.e. to understand, respect and form relationships across ethnic, religious and other dimensions of human diversity; (5) adolescents *developed new levels of responsibility*; (6) the young people also developed a greater degree of emotion regulation and capacity for teamwork. In order to create the conditions for these positive developments in the youth the adult leaders in these programmes managed to foster agency in the youth while providing direction only when necessary. Their strategies were to support the goals and directions the youth set for themselves; to cultivate a culture of youth input; they monitored

activities attentively and intervened as needed; and they sometimes created structures to make the tasks more manageable for youth; they also encouraged, provoked and pushed the youth to try new ideas and get out of their comfort zones.

Sternberg developed the *Balance Theory of Wisdom*, and proposed an interesting educational approach in which cognitive as well as character developments are enhanced (Reznitskaya & Sternberg, 2004; Sternberg, 2001; Sternberg & Grikorenko, 2002). Sternberg defines wisdom as “the application of tacit as well as explicit knowledge as mediated toward the achievement of a common good through a balance among a) intrapersonal, b) interpersonal, and c) extra-personal interests, over the a) short- and b) long-terms to achieve a balance among a) adaptation to existing environments, b) shaping of existing environments, and c) selection of new environments” (Reznitskaya & Sternberg, 2004, p. 182). Thus, wisdom refers to decision making that balances multiple interests and consequences in such a way, that common good is maximised. Values lie at the heart of wise decision making. Teaching for wisdom in a school context is not a didactic method of giving information about wisdom, but consists of the provision of opportunities to actively experience various cognitive and affective processes that are part of wise decision making. Children are not taught what to think, but *how* to think. Activities should be offered in which the children’s ability to think reflectively, dialogically and dialectically, is promoted. *Reflective thinking* involves children’s ability to reflect on their own functioning. Such meta-cognition includes reflection on own cognitive processes, but also own emotions, motives and motor acts. Wisdom will imply awareness of own psychological state, as well as the ability to handle and regulate the tensions among several conflicting interests and values. Reznitskaya and Sternberg (2004) suggest that teachers can help students to practice reflective thinking by developing instructional activities that will prompt students to explore and shape their own values. *Dialogical thinking* requires that a person transcends a single frame of reference. Various perspectives on an issue can exist. Dialogical thinking can be fostered through the reading and discussion of various viewpoints on controversial topics. The learners must be helped to “experience various voices in their heads”. *Dialectical thinking* requires the dynamic integration of opposing perspectives. Wisdom will imply that seemingly opposing views can be integrated in a more complex solution. In dialectic thinking knowledge is viewed as fluid, complex, relative and evolving. The focus of knowledge is shifted from an “authority” to the self. To promote dialectic thinking teachers can give students the opportunity to construct their own understanding of content; give them assignments that require

integration of material, especially integration of material over the boundaries of subjects, such as art, history, science and literature; and facilitate the study of paradigm shifts in a specific content area, in order for them to discover the dynamic nature of knowledge. Of course teachers should model reflective, dialogical and dialectical thinking in and outside the classroom. This approach relates to well-known approaches in education and it tries to foster critical thinking, but thus also to foster character development. A great strength of Sternberg's model of teaching for wisdom in schools is that it integrates the development of cognitive skills and socio-moral competencies. Sternberg and co-workers constructed specific curricula based on the tenets of the balance theory of wisdom, the effects of which are currently compared in empirical outcome research with that of other approaches (Reznitskaya & Sternberg, 2004). This seems a very promising approach to foster an important component of positive functioning, namely wisdom.

From another perspective, wisdom or perspective is one of 24 character strengths described by Peterson and Seligman (2004). These character strengths are classified in six virtue clusters, namely wisdom and knowledge, courage, humanity and love, justice, temperance and transcendence. Steen, Kachorek and Peterson (2003) found in focus groups with adolescents that the most valued character strengths for them were leadership, practical intelligence, wisdom, social intelligence, love of learning, spirituality, and the capacity to love and be loved. The authors suggested some guidelines for facilitation of character strengths in youth, and contended that programmes should not try to teach students what to do, but rather help students to learn how to make difficult ethical decisions. Their guidelines are: (1) experiential programmes may be more effective, as students express preference for learning from experience. When studying the strength of 'fairness' students can visit a local court hearing; or studying 'kindness', they can keep a diary on acts of generosity and kindness, etc.; (2) character education programmes must recognise that various strengths are interdependent; (3) students must be exposed to good role models. These can be found in the community, literature, etc.; (4) the peer group is very important: group discussions in which adolescents notice that certain strengths are valued by their peers, may influence their own thinking. Future research will have to compare the effectiveness of various methods to promote character strengths.

Park (2004) views character strengths as a group or family of positive traits reflected in an individual's thoughts, feelings and behaviours. She indicates that character strengths play an

important role in positive youth development as a broad protective factor as well as an enabling condition to facilitate thriving. She also points out that these strengths can be strengthened by appropriate parenting, schooling, healthy communities, role models and youth development programmes. Park (2004) indicates, among other things, that it has been consistently indicated that a firm and authoritative parenting style that is also respectful of the child's perspective, is associated with children's pro-social behaviour such as sharing with others, self-confidence, and self-control. The empirical evaluation of programmes to enhance various character strengths are now necessary, especially also in various cultural contexts. Peterson and Park (2004) indicate the value of the VIA-Inventory of Strengths in evaluation of the outcomes of interventions.

Several other studies on enhancement of specific (character) strengths have been conducted and are in progress with *adolescents as well as with adults*, for example on emotional intelligence, gratitude and curiosity. Salovey, Caruso and Mayer (2004) proposed a four-branch model of *emotional intelligence* (EI) and indicated its applicability in practice in various contexts. They believe that EI includes the ability to identify emotions accurately in the self and in other people, to understand emotions and emotional language, to manage emotions in the self and in other people, as well as the ability to utilise emotions to facilitate cognitive activities, and to motivate adaptive behaviour. The skills involved and facilitated in practice are grouped in four clusters, namely, (1) *perceiving emotion* (e.g. the ability to identify emotion in a person's physical and psychological states), (2) *using emotions to facilitate thought* (e.g. ability to use emotional states to enhance problem solving and creativity), (3) *understanding emotions* (e.g. the ability to note the causes and consequences of emotions), (4) and *managing emotions to enhance personal growth and social relations* (e.g. the ability to monitor and reflect on emotions). These skills can be measured with the MSCEIT (Mayer-Salovey-Caruso Emotional Intelligence Test). Research on application of EI in educational settings, human resource management (e.g. executive coaching), training parenting skills and family dynamics, marketing, and in politics seems to be promising. Further long-term outcome research is necessary.

Emmons and McCullough (2004) indicate that *gratitude* is conceptualised in various ways, and is seen as ranging from a momentary affect to a long-term disposition. Emmons and his colleagues (Bono, Emmons, & McCullough, 2004; Emmons & McCullough, 2004) conceptualise gratitude as a broader attitude towards life (a tendency to see life as a gift), and contend that gratitude is a key

element to spark positive changes in families, organisations, and individuals. Research indicates that gratitude as a moral affect can be a barometer of experienced goodwill and pro-social actions from others, a moral motive to be generative towards others, and a moral reinforcer that entices others to do good. According to the existing research gratitude, as an affective trait, seems to have a dispositional component (highly grateful people feel gratitude more intensely, more frequently, and with greater density), but the research also indicates that gratitude can be cultivated and developed (Bono et al., 2004). Research findings indicate that highly grateful people experience more positive emotions, hope and satisfaction with life; they are more pro-social, empathic, forgiving, spiritually orientated, and have lower levels of depression, than people with lower levels of gratitude. Polak and McCullough (2006) even propose that gratitude may reduce materialistic strivings and their associated negative effects on psychological well-being.

Whereas gratitude (part of the transcendence cluster) is associated with the perception of kindness, the character strength of *kindness* itself (part of the humanity virtue cluster) entails acting kindly towards others. Otake, Shimai, Tanaka-Matsumi, Otsui and Fredrickson (2006) showed that an intervention that required university students as participants to simply keep track of their kind acts towards others for one week significantly increased their subjective happiness and levels of gratefulness in comparison to that of a control group as measured a month later. Possible mechanisms for this effect may be linked to motivational and cognitive factors that enhance positive affect as described in the broaden-and-build model of Fredrickson (2001). An important observation of Otake et al. (2006) is the close association of gratitude and kindness, and they rightfully raised the question whether kindness and gratitude might perhaps belong to the same cluster. Future factor analyses on the VIA-IS and VIA-Youth should look into this possibility.

Curiosity, one of the cognitive strengths in the Wisdom and Knowledge clusters of virtues in the VIA-IS model, is related to various other constructs such as interest, intrinsic motivation, openness, active exploration, and others. Kashdan and Fincham (2004) indicate in studies with adults that curiosity explains more or less 10% of variance in achievement and performance, is related to workplace adjustment and satisfaction, and ability to self-reflect and change behaviour. They argue that curiosity is a malleable psychological state, and that social context and self-regulatory processes play an important role in facilitating this strength. Against the backdrop of Ryan and Deci's (2000) Self-Determination Theory (SDT) they indicate how curiosity may be facilitated in interventions

through a motivational interviewing (MI) strategy. The self-regulation process of internalisation transforms activities that are not self-determined into activities that induce curiosity. Research on specific interventions to facilitate task curiosity is needed.

Research on *psychological well-being in older adults and in old age* has started in the eighties and beginning of the nineties (e.g. Carstensen & Cone, 1983; Ryff, 1989b; 1991) and is still continuing (e.g. Carstensen & Charles, 2003; Cheng, Chan & Phillips, 2004; Fernandez-Ballesteros, 2003; Lupien & Wan, 2004). In this process several new constructs developed such as “vital aging”, “successful aging”, “aging well”, and “competent aging”. Many studies have been conducted on physical longevity, but only very few on psychological longevity (Fernandez-Ballesteros, 2003; Viallant, 2004). Fernandez-Ballesteros (2003) indicates that the main purposes of the successful aging perspective firstly included the promotion of successful aging by modifying negative physical facets related to illness, and optimising cognitive, physical and social capacities and engagement with life. The second purpose was to uncover characteristics linked to aging well, such as wisdom, serenity, coping strategies, social and civic engagement, etc. He suggests that aging well is strongly associated with “doing well”, which refers to behavioural strategies that can improve health and cognitive, emotional and social functioning.

In a longitudinal study on healthy aging Vaillant (2004) explored physical and psychosocial health, and found that specific indicators at age 50 could predict positive health at 80 years of age. Surprisingly, some variables that did not predict positive aging were ancestral longevity, cholesterol, warm childhood environment, stable childhood temperament, and stress. Factors that did predict positive aging were not smoking or stop smoking by 50 years, an adaptive coping style (increase in mature defenses such as sublimation, altruism, suppression and humour, and decrease in immature defenses such as passive aggression, projection, dissociation and acting out), absence of alcohol abuse, a healthy weight, a stable marriage, exercise and years of education. Vaillant (2004) concludes that positive functioning in old age is to a great extent related to people’s voluntary behaviour many years earlier: voluntary control of weight, exercise, abstinence from cigarettes and alcohol, good relationships and mature defenses.

In their study of successful aging Lupien and Wan (2004) show the impact of age stereotypes on the biological and cognitive functioning in old age, and indicate the importance of psychological and sociological factors that improve and maintain functioning. They provide strong evidence that a

positive self-concept in older people can reverse what was once believed to be an inevitable declining process. Although several correlates of successful aging have been found, there is still a need for empirical evaluation of the impact and sustainability of the effect of interventions to enhance psycho-social well-being in older adults, especially in various cultural groups and contexts. As Vaillant (2004) remarked, it is more important to add more life to the years of people, rather than only add years to their lives.

It can be concluded that positive psychology has valuable application possibilities with people in all phases of the life cycle: for children, adolescents, adults and the elderly.

APPLICATION OF POSITIVE PSYCHOLOGY IN VARIOUS CONTEXTS

Many theories and findings from experimental and other analytical studies in positive psychology/psychofortology have already found their way into applications in various real world contexts. Some of these applications have been referred to in the above section. Therefore in this section only brief reference will be made to examples of research and application in various contexts, while paying more attention to educational, work and health contexts.

A prominent domain in which the focus can be on enhancement of the well-being in children and the youth, is the *school/educational context*. Examples of research and contemplation of application of positive psychology in this context are those by Akin-Little, Little and Delligatti (2003), Bonica and Sappa (2006); Chafouleas and Bray (2003), Clonan, Chafouleas, McDougal and Riley-Tillman (2003), Jenson, Olympia, Farley and Clark (2003), Terjesen, Jacofsky, Froh and DiGiuseppe (2003), Reznitskaya and Sternberg (2004), and Sackney, Noonan and Miller (2000). These authors argue that the application of positive psychology in the school context is aligned with this movement's view of development of "positive institutions", that teachers should be trained to develop their own positive traits such as optimism, happiness, and others, and to utilise these in the classroom setting, that strengths should be developed in children, and that integration across multiple contexts should take place. Many of the arguments are, however, still more about prevention of risks and problems only, and little about promoting of flourishing in youth. Benson (n.d.) provides an insightful review of research and experience about the *content* that should be included in good school-based prevention curricula in the USA, as well as *how* it should be delivered to be most effective. Multiple strategies are needed and should be coordinated within the school, within the larger community, and

should focus on aspects that cut across many health and safety issues. Benson contends that independent of ethnicity, race, family structure or poverty status, adolescents who are connected to their parents, families and school community are healthier than those who do not have such connectedness. Development of more specific interventions, especially in the South African context with the major problems of violence and disruptions in schools that are seen nowadays, is needed, as well as the empirical evaluation of the effects and sustainability of applications and interventions. Bono, Emmons and McCullough (2004) reviewed the impact of gratitude exercises, and suggested that schools and other educational settings should be important venues for gratitude interventions. Little research has been done on gratefulness in children.

Several researchers have applied ideas from positive psychology in the *work context*, or suggest application, for example Bakker (2006), Cameron, Dutton and Quinn (2003), Clifton & Harter (2003), Demerouti (2006), Henry (2004), Luthans, Luthans and Luthans (2004), Rothmann and Storm (2003), Schaufeli (2006), Sivanathan, Arnold, Turner and Barling (2004), Turner, Barling and Zacharatos (2002) and Van Horn, Taris, Schaufeli and Scheurs (2004). Building on the knowledge base of positive psychology constructs such as “positive organizational behaviour” (POB), “occupational well-being” and “a psychologically healthy work place” have been developed. Cameron, Dutton and Quinn (2003) even suggest that “positive organizational scholarship” is a new (sub-)discipline. Support is found for the impact of a strengths-based approach on productivity, employee engagement, confidence and subjective well-being in a work context (Clifton & Harter, 2003). Csikszentmihalyi and colleagues (Csikszentmihalyi, 1997; Nakamura & Csikszentmihalyi, 2002; 2003) showed in many studies that work also provide the opportunity to experience a form of psychological well-being, he named “flow”. He found that many highly productive artists, entrepreneurs, scientists and statesmen experience flow in their work and see their work as totally integrated with the rest of their lives (without being ‘workaholics’). During *flow* a person is so totally absorbed in what he or she is doing, that he/she loses track of time. In flow there is a optimal balance between challenge and skill, there is immediate feedback, and the task is inherently satisfying. Related to the concept of flow is the concept of “engagement”. Several keynote presenters at the first South African conference on positive psychology held in Potchefstroom during April 2006, referred to the importance of the “work engagement” phenomenon that came into vogue as counterpart of the “work burnout” phenomenon. Engagement is defined by Schaufeli (2006) as a positive state that is characterised by vigour, dedication and absorption. In the South African context

Rothmann and colleagues at the Work Wellness centre of the North-West University in Potchefstroom are well known for their work on measurement of engagement and facilitation of psychological well-being facets in a work context (Rothmann & Storm, 2003; Viviers & Coetzee, 2006).

A work-related area of practice in which positive psychology has made huge inroads is executive coaching. *Executive coaching* (initially a service to top-level executives to enhance their performance but now available to anyone who would like to improve her/his work performance) was initially more based on fixing what might be wrong, was not build on sound and systematic theory and research. Its main aim is, however, to maximise the potential of the client by building his/her strengths and skills. Kaufman and Scoular (2004) pointed out the peculiar and alarming situation that, although large amounts of money are changing hands in this service, the field and profession of executive coaching thus far could be provided by anyone who wished to do so, without professional training and standards, certification, enforceable regulation or practice benchmarks. These authors advised that the areas of executive coaching and life coaching should be professionally regulated and more scientific studies done on its effectiveness (Kaufman & Scoular, 2004). The nature of the so-called second-generation executive coaching seems to be changing in recent times, linked to the fact that executive coaching and positive psychology are “natural partners” in that they both aim to build strengths and skills (Kaufman & Scoular, 2004). This second-generation of executive coaching is directly based on positive psychology and a strengths-building perspective, and formal advanced training is being offered by, amongst others, Seligman, Dean and colleagues (e.g. Buckingham & Clifton, 2001; Kaufman & Scoular, 2004; www.authentichappinesscoaching.com; www.mentorcoach.com; www.cappeu.org). Kaufman and Scoular (2004) indicate that a positive psychology 360-degree intervention (a 360-degree intervention is where feedback is expected from subordinates, peers, and even family members) is still to be described and implemented, and they wonder what the impact of such a figure-ground reversal will be where strengths and virtues of executive officers are highlighted.

Positive psychology contributed to a new reflection on the role of *ethics in the work context* (Donaldson, 2003). Sekerka and Bagozzi (2006) developed an interesting theory of virtuous action in the work place, based on their research on the development of virtuous actions, specifically moral courage, and self-regulation when faced with an ethical dilemma in the workplace. The authors

contend that further research is needed on the empirical testing of this theory, and that advancement of scholarship in this domain, will eventually enhance exercising of moral behaviour by organisational members in multiple contexts.

The arms of application of positive psychology/psychofortology also extend to the *family context* (e.g. Bassi & Fave, 2006; Sanders, 1999; Sheridan, Warnes, Cowan, Schemm & Clarke, 2003; Vera & Shin, 2006), *community context* (e.g. Vera & Shin, 2006; Zeldin, 2000), and *public health and policy domains* (e.g. Bond, 2003;; Huppert, 2004; Myers, 2004, Pavot & Diener, 2004; Veenhoven, 2004; Vera & Shin, 2006). Much of the research on public policy is linked to the well-being of children and adolescents. Vera and Shin (2006) strongly argue the importance of a strength-based approach in advocacy, outreach, and lobbying on children's behalf in public policy to help create a socially just context where children can thrive. These authors opine that some of the worst social toxins are poverty, absence of adult supervision, isolation of children from their communities, violence, and exposure to racism. They contend that the family is the most important and direct point for interventions. Myers (2004) stresses the universal need of people to belong, indicates the association between close relationships and subjective well-being, and makes some suggestions as to how public policies may balance individual and communal well-being. Pavot and Diener (2004) provide information on cross national studies with a measure of subjective well-being, and argue that a national index of subjective well-being could be an important additional measure of quality of life, apart from traditional economic and social indicators. Huppert (2004) indicates that there are many so-called "population programmes" to prevent mental health problems, but also points out that these programmes focus only the few individuals with problems, and that they miss the opportunity to improve mental health for everyone. From a positive psychology perspective she argues that the aim of the population approach to mental health should be to improve the lives of all people, their vitality, psychological well-being, capacities, and interpersonal and social relationships. She contends that policymakers in the health fields are taking interest in positive population interventions because of the short- and long-term benefits to society as a whole. Huppert (2004) opines that population-based positive psychology interventions will be in the forefront of health and social reforms in the decades to come.

Apart from educational, work, family and community contexts, there are promising indications of application of positive psychology also in *physical health contexts* (e.g. Cohen and Pressman, 2006;

Davidson, et al., 2003; Emmons & McCullough, 2003; Harris & Thoresen, 2006; Huebner, Valois, Suldo, Smith, McKnight, Seligson & Zullig, 2004; Huppert & Baylis, 2004; Lupien & Wan, 2004; Peterson, Park & Seligman, 2006; Ryff & Singer, 2002; Schutte, Kruger, Wissing, Underhay & Vorster, 2005; Sehgal, 2006; Taylor, Dickerson & Klein, 2002; Taylor & Sherman, 2004). Davidson et al. (2003) have shown that an intervention based on mindfulness training has a beneficial effect on the immune system. Keverne (2004) and Barker (2004) indicate that the experience of a positive early (social) environment reduces the risk of mental and physical problems later in life. Bono, Emmons and McCullough (2004) showed that an intervention in which participants had to describe five things they were grateful for once per week for 10 consecutive weeks, reported fewer health problems than those in control groups who reported on stressors or other important events. This intervention has results similar to Naikan therapy which aims to help clients realise a deep sense of connection with others and experience a strong sense of gratitude towards those who provided them with benefits (Bono, et al., 2004). Lupien and Wan (2004) indicate the adverse effects of “ageism” (negative stereotypes of aging), and show that psychological well-being and a positive view of ageing are major protective factors against the negative effects of age on the organism.

Taylor and Sherman (2004) review the close association between facets of positive psychological functioning and health-related behaviours. They indicate that optimists are more open to relevant health information than pessimists; positive beliefs about the self in optimists promote AIDS preventative behaviours; writing about a positive future twice a week for four weeks even helped pessimistic HIV-infected women to better adhere to medications and report less distress from the side effects of medication, in comparison to a non-writing control group; perceived or actual social support reduces psychological distress and promotes adjustment to chronically stressful conditions such as coronary disease, diabetes, cancer and arthritis; adults with positive relationship pathways are less likely to have high allostatic loads, etc. Taylor and Sherman (2004) indicate that previous research has shown that social support has beneficial effects on physical health. Interventions that promote benefit finding in chronic and terminal illnesses, lead to more positive physical and psychological outcomes. Findings on the strong link between positive facets of psychological functioning and physical health states, point to considerable intervention potential as far as health is concerned. However, Cohen and Pressman (2006) warn that these links are less clear in the case of people with serious illnesses. Application of principles from positive psychology even finds its way

into relatively unexpected areas such as *family medicine* (e.g. Hershberger, 2005) and *psychiatric rehabilitation programmes* (e.g. Resnick & Rosenheck, 2006).

From this literature review it is clear that knowledge developed in the scientific domain of positive psychology is finding its way into application in many real life domains, and that scientific evaluations of the effects of these applications are taken seriously. However, very few studies took cognizance of cultural context as a variable that may play a role, and more studies in this regard are necessary.

SPECIFIC STRATEGIES

An analysis of the literature reveals that many strategies utilised in ordinary (traditional) psychotherapy, can be described as “positive strategies”. With a view to “positive therapy”, Joseph and Linley (2006) highlighted some specific strategies and techniques that may fall in this category, for example, (i) *motivational interviewing* (a brief and directive technique driven from person centered therapy), (ii) *solution focused therapy* (with an emphasis on finding solutions to the client’s issues, rather than focusing on the problems involved, through the evocation and co-construction of solutions), (iii) *use of signature strengths in new ways* (use of strengths is considered to act as a buffer against mental illness), (iv) *counting blessings* by thinking about three good things, and their causes, that had happened each day, (v) *well-being therapy strategies* used by Fava and Ruini (discussed above) which focus on identification of episodes well-being, contextualizing, and enhancement thereof (vi) *mindfulness-based cognitive therapy strategies* (discussed above), (vii) *post-traumatic growth therapy strategies* (referred to above), and (viii) “*perfect*”- *resources technique* (‘perfect’ is an acronym for the domains physical, environmental, relational, feelings, effective thinking, continuity of past and present, and transcendence through spirituality; clients learn to use the ‘perfect’ mnemonic to remind themselves to scan through these domains/ resources to stimulate possible ideas of what might help when they are in need of more psychological energy; remembering that multiple resources and approaches may exist increases a sense of agency and multiple pathways, which is the core characteristic of hope).

Two positive techniques included in Smith’s (2006) model for strengths-based counselling, also borrowed from solution-focused therapy, are “the miracle question” and “the exception question” strategies. With *the miracle question* the counsellor tries to obtain a picture of what would be

different if the problem would have been solved. The client is asked to imagine or pretend that all his/her problems are magically solved, and then to tell how he/she knows that the miracle has happened, how the situation would be changed, what would be different, etc. With *the exception question* a client is asked to think about a situation in which the problem could have been expected, but did not occur, and then being asked what must take place so that these exceptions can occur more often. In this way clients begin to consider a different and more positive kind of life that is not dominated by the specific problems. Another strategy proposed by Smith (2006) and borrowed from narrative therapy, is *retelling of their life stories with emphasis on their strengths*. In his psychotherapeutic model Frish (2006) proposed and described many well known and specific strategies to enhance the experience of quality of life (referred to above), which can also be viewed as “positive strategies”.

Research on practising of virtues demonstrates strategies for the enhancement of psychological well-being, e.g. *thoughtful self-reflection* as demonstrated by King (2001). There is increasingly research on strategies linked to character strengths as defined in the Virtue in Action model of character strengths (Peterson & Seligman, 2004). The usefulness of such strategies has, however, been known long before this model was developed. Examples of such strategies are those to facilitate *forgiveness* and *gratitude*. Baskin and Enright (2004) evaluated the effectiveness of *forgiveness* interventions. They distinguished three categories of interventions, namely, decision based interventions, process-based individual interventions, and process-based group interventions. The process-based individual interventions tend to be most effective. Enright’s process model of forgiveness suggests the following nine steps: acknowledge emotions (e.g. anger, hurt, embarrassment); articulate the specific behaviours of the other person that hurt you; make the choice to forgive; tell yourself why you made this decision (e.g. to be free of anger that occupies you); try to ‘walk in the shoes’ of the other person, and consider his/her vulnerabilities; commit yourself to not pass along the pain you had to endure; decide to cultivate mercy and goodwill (at this stage reconciliation with the other may be sought, but it is not necessary); experience how it feels to let go of a grudge, and find meaning in the suffering you endured and overcame; reflect on the paradox of forgiveness: giving forgiveness to the other, give you the gift of peace of mind. Research indicates that people who are forgiving do better on many measures of well-being (e.g. better health, longer lives, better marriages, stronger social support) than those who do not forgive.

Another character strength that is linked to positive psychological and physical outcomes, is *gratitude*. Emmons and McCullough (2003) compared the effect of “*counting of blessings*” (gratitude-outlook) with “counting of burdens” and other activities on various outcomes in three studies. They found that the gratitude-exercise had a significant effect on various outcome measures, with the most robust effect on positive mood. They conclude that focusing on blessings has emotional and interpersonal benefits. Sheldon and Lyubomirsky (2006) confirm these findings with regard to the effect of gratitude on positive emotions.

Strategies to facilitate gratitude and other character strengths were also included in an empirical evaluation by Seligman, Steen, Park and Peterson (2005). In a random-assignment, placebo-controlled internet study they evaluated the effect of 5 positive interventions and one control activity in a week long intervention, and found that three of these lastingly increased happiness and decreased symptoms of depression. The intervention strategies were *a gratitude visit* (after some reflection participants write a letter of gratitude to someone important who had never been properly thanked in the past, then make an appointment with the specific person, and read the letter in person to him or her); *three good things in life* (participants wrote down each day three things that went well that day, as well as the causes thereof); *you at your best* (participants wrote a story about a time they were at their best, and reflect on their own strengths displayed in the story every day); *identifying signature strengths* (participants did the character strengths inventory at www.authentic happiness.org received feedback on their top five strengths, and used them more often during the week); *using signature strengths in a new way* (same as above, but then with additional instruction to use these strengths in a new and different way each day). In the control exercise participants wrote about their early memories each day. *Using Signature strengths in a new way, three good things, and the gratitude visit* caused positive changes that still lasted at a month follow up, and the first two three months. As this internet group was mainly white, well educated and of at least middle income levels, a question is whether these findings can be generalised to other groups, and in particular South African groups. Further research needs to be done to verify these findings in other cultural and socio-economic contexts. It may also be explored whether a package of the above exercises (in what sequence?), or longer intervention times, would deliver even better results. It can further be explored whether some participants (e.g. particular personality types) are more responsive to a particular kind of intervention. Tkach and Lyubomirsky (2006) have embarked on this kind of research.

Lyubomirsky, Sheldon and Schade (2005) developed a model based on existing research, in which they propose that an individual's level of happiness is caused by three main factors: (i) *a genetic set point*, i.e. a predisposition for a certain level of happiness around which happiness levels hover (explains 50% of current happiness), (ii) *life circumstances*, including contextual variables (e.g. moving to new neighbourhood), demographic variables such as age, sex, marital status, and income – people adapt quickly to positive and negative life events (explains 10% of current happiness), and (iii) *intentional activities*, i.e. activities that require thought and behaviour – such intentional activities that require effort are the key components of the dynamics of lasting happiness and are more resistant to adaptation (explains 40% of current happiness). These authors as well as Sheldon and Lyubomirsky (2006a, 2006b) provide empirical support for this model. Lyubomirsky, Sheldon and Schade (2005) found that both changes in life circumstances and intentional activities predicted increased happiness for some time, but that intentional activities predicted longer term happiness.

The message from this research for strategies to enhance psychological well-being is that changes in levels of happiness and psychological well-being require intentional activities, which are varied to ward of adaptation. An example of a strategy used in the above-mentioned research by Lyubomirsky and her colleagues, is the so called “*random acts of kindness*” (also called “intentional acts of kindness”) exercise. Participants need to perform 5 random acts of kindness per week over the course of 6 weeks (thus a total of 35 acts of kindness over time). These acts of kindness must i) benefit another person, and ii) require the participants to give something of themselves away, such as their time, food, energy, or another personal resource. Otake, Shimai, Tanaka-Matsumi, Otsui and Fredrickson (2006) established that the awareness of, and regular count of own acts of kindness, contributed to longer term subjective happiness. How sustainable this happiness will be (beyond one month) is not yet known. However, from the above it is clear that the model of character strengths provides the basis for development of various promising strategies for development of facets associated with psychological well-being.

Although the implementation of strategies as mentioned above may prove to contribute to greater levels of happiness for people, it may be wise to take note of Schwartz and Sharpe's (2006) warning that more of a specific signature strength as proposed by Seligman (2002a) and Peterson and Seligman (2004) is not necessarily better – it may even deform character. Schwartz and Sharpe (2006) argue that doing the right thing is context and person specific, and that it requires practical

wisdom to know what to do and to want to do it. According to their views there should be a balance with regard to virtues as opposed to cultivating only specific signature character strengths. Practical wisdom also requires more strengths than those mentioned in the VIA-model, namely, discernment, perceptiveness, and imagination. Judgement is necessary more than the mere application of rules. Practical wisdom is the “master virtue” and cannot be taught, although it can be learned from experience: acting on judgements in difficult and ambiguous situations, and getting feedback one may become wise. Schwartz and Sharpe (2006) are also of opinion that the development of practical wisdom as the executive decision maker needs social institutions that support this value, and do not stifle it through the pressure of financial / materialistic profits and bureaucratisation.

It can be concluded that theory development in positive psychology formed the basis for several strategies or exercises to increase happiness and psychological well-being. These strategies were then submitted to experimental evaluation of their impact, and support was found for various degrees of effectiveness for different strategies. A message from this research is that there are no short-cuts for increases in happiness over the long run. Maintaining higher levels require sustained effort in the same way as gains from fitness and diet programmes require. Many areas are open for further research, for example: Future research should evaluate the effectiveness of these strategies to enhance psychological well-being, in various cultural groups, and in participants from different categories on the mental health continuum (from those with pathology, to moderately mental health to flourishing). It would be valuable to know whether interventions utilising these strategies are equally effective with participants with (diagnosed forms of) pathology, moderately mentally healthy individuals, and participants with already high levels of functioning. Until now, most research was probably conducted on moderately mentally healthy groups. Future research can explore Schwartz and Sharpe’s (2006) contention that practical wisdom is actually the executive decision maker (“master virtue”) and that development of specific “signature strengths” as suggested by Seligman and others is not the best way to conceptualise and implement the development of virtues and character strengths.

CONCLUSION

From this review it is clear that application of positive psychology has found its way into many real life contexts in which it can contribute to a better quality of life for people. Although positive psychology is a relatively new sub-discipline / movement in psychology, scientific progress in many areas has been made to such an extent that interventions at individual, community and public policy levels can be made. Applications are found as far as evaluation (assessment) and interventions are concerned in various life contexts (such as therapy, health promotion, work), and in various phases of life (from childhood through adolescence and adulthood to old age). A special advantage of positive psychology is that it has the theory, research evidence, and techniques to bring benefit for many people on the whole mental health continuum, and not only, but also, the minority who have a problem or are at risk for developing problems.

Despite the current successes already booked in application of knowledge to practice, the effectiveness of many strategies and interventions has only been shown in a Western context, and further research is necessary. Interventions or programmes need to be culture sensitive and evaluated for applicability in various contexts, and especially also in the African context. Although some researchers attest to the universal existence of specific character strengths and virtues (e.g. Biswas-Diener, 2006; Otake, et al., 2006), others such as Tkack and Lyubomirsky (2006) found that preferred happiness-enhancing strategies differ to some extent between individualist and (Eastern) collectivist cultural groups: Individualist groups preferred active leisure such as activities that lead to high-arousal positive emotions (enthusiasm and excitement), whereas the collectivist group preferred passive leisure activities with low-arousal emotions (being calm and tranquil). No information exists on what African, relatively more collectivist groups would prefer – it cannot be assumed that African ‘collectivism’ is similar to the eastern ‘collectivism’ in all cultural values and preferences, and further research in this regard is necessary. Constantine and Sue (2006) also contended that Western notions of optimal functioning may be inapplicable to people of colour in the USA, and that the role of culture, values, beliefs and adaptive practices related to optimal functioning, should be explored and described specifically also for people of colour to understand how adverse circumstances have been overcome. Tkack and Lyubomirsky (2006) indicated that a priority area for future research should be the investigation of happiness-enhancing strategies in various cultural contexts.

It is important that the long-term effects of interventions be explored, as many of them have to date only been followed up on a short-term basis. Future research must also probe into the variability of psychological well-being over time, and how such dynamics influence processes to enhance well-being in various contexts and in different phases of life. The specific dynamics that are playing a role in the positive effect of interventions need to be determined.

Thus far all evaluations of applications of knowledge from positive psychology / psychofortology were directed at interventions on the level of the development of individuals. Although Seligman and Csikszentmihalyi (2000) identified positive institutions as an important target for positive psychology, little or no attention has been paid to it as far as evaluation of effects of interventions are concerned. Future research in positive psychology should do well to link up with systems theory and social psychology with a view to foster the development of positive social institutions, and evaluation of the effects of such interventions. Schwartz and Sharpe (2006) argued that the shaping of positive institutions is a matter of practical wisdom – that is more than what positive psychology has attended to thus far.

It can be foreseen that the domain / sub-discipline / perspective of positive psychology will continue to develop rapidly as from now on. Advancement in the field of applied positive psychology is reflected in the establishment of the Centre for Applied Positive Psychology (www.cappeu.org) that will be running as from 2007, and the first Applied Positive Psychology Conference that is to take place in February 2007.

Notwithstanding the very promising research on the practical applicability of knowledge from the domain of psychofortology / positive psychology, it needs to be cautioned that this is also merely an approach, paradigm or movement, and that a deep understanding of a person and walking all the way with him/her in practice, will also include an awareness of pain and suffering where applicable, and that more may be needed than strengthening of the strengths. This position is in line with the contention of Linley (2006) and Linley, Joseph, Harrington and Wood (2006) that positive psychology in future should pay more attention to the synthesis of the positive and negative in human experience and behaviour, integrate more across levels of analysis, and be aware of the difference between description and prescription. However, the development of positive psychology / psychofortology as a sub-discipline or perspective on par with the sub-discipline or perspective of psychopathology has already empowered practitioners to take a more balanced view of people. In

future, further valuable contributions to the discipline and practice of psychology can be expected from developments in this field.

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SECTION 5

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The aims of this study were (i) to conduct a first-phase exploration of the validity of several scales, for applicability in measurement of positive facets of human functioning in the South African (multi-cultural) context (manuscript 1), (ii) to explore patterns of psychological well-being and satisfaction with life in (a South African) cultural context (manuscript 2), and (iii) to review the state of the art of the applicability of knowledge from the domain of positive psychology for practice, with specific reference to assessment, intervention, application over the life-span, and in various contexts.

The first article reported the results of a first-phase screening of psychometric properties of several scales measuring facets of psychological well-being in a South African context. Most of these scales were developed in a western context, and measured facets of cognitive, affective, conative, social, and spiritual psychological well-being. Data were gathered in two projects including 731 participants from different cultural contexts in the North West Province of South Africa. The FORT-project (FORT = Clarifying the nature of psychological strengths; forte=strength) included a convenience sample of 384, mainly white, students and adults from the Potchefstroom area, and a convenience sample of 130, mainly black, students from the Mafikeng area. The POWIRS-project (POWIRS = Profiles of Obese Women with the Insulin Resistance Syndrome) included 102 black 115 white (n=115) adult women. The main findings were that the reliability and validity of scales for use in a South African context varied from acceptable to totally unacceptable for use in specific subgroups, specifically in the case of instruments measuring highly individualist orientated constructs which seem to be less applicable in an African more rural, perhaps more collectivist, cultural context.

It was concluded in article 1 that the most promising scales for use in all groups were the Affectometer 2, the Fortitude Questionnaire (except the FORQ-S), the Cognitive Appraisal Questionnaire, the Satisfaction with Life Questionnaire, the General Health Questionnaire (the latter measuring pathology), and to some extent, the Sense of Coherence Scale. These findings concur

with those of Wissing *et al.* (1999), Wissing and Van Eeden (2002), and Vorster *et al.* (2000). However, all scales showed acceptable reliability indices and some indications of validity for the white, more individualist sub-groups. Scales that showed poor reliability and validity in black groups, especially in the more rural areas or communities with a relatively more collectivistic value system, were the Tennessee Self-Concept Scale, the Life Orientation Test, the Hope Scale, the General Self-efficacy Scale, and some subscales of the Automatic Thoughts Questionnaire (specifically the ATQ-P-O and ATQ-P-F). It was pointed out that the latter scales all measure some form of future-directedness, agency or conative functioning that formed a specific secondary factor of psychological well-being in the case of relatively individualist groups (see article / manuscript 2). Such an individualist, future- or achievement-orientation may be less valid as an indication of well-being in a relatively collectivist, more rural context.

Implications of the findings reported in article 1, are that it cannot be assumed that measures developed in a western context will be equally applicable in an African context, or that phenomena or traits supposedly reflecting psychological well-being, will be equally important in all groups as indications of psychological health. As the current study was a first-phase scrutinising of scales, it is recommended that the findings should be followed up with a more in-depth psychometric analyses of specific promising scales, and findings also tested in other groups.

The second manuscript, which was accepted as a chapter in the peer reviewed book *Dimensions of well-being: Research and intervention* edited by Delle Fave (2006), explored the patterns of psychological well-being and satisfaction with life in 1,909 participants from relatively more individualist and relatively more collectivist cultural backgrounds in South Africa. Data were collected in four projects, namely the FORT (FORT = Clarifying the nature of psychological strengths; forte=strength), POWIRS (POWIRS = Profiles of Obese Women with the Insulin Resistance Syndrome), THUSA (THUSA = Transition and Health during Urbanisation of South Africans), and the VAAL (VAAL = Vaal Triangle area in Gauteng, which is regarded as is a microcosm of the peoples of South Africa). The main findings were that there were similarities and differences in patterns of psychological well-being in the individualist and collectivist groups, and that a general psychological well-being factor could be identified in both cultural groups, explaining a large percentage of the total variance. This general psychological well-being factor consisted of intrapersonal affective, cognitive, spiritual and physical facets. In individualist groups, this factor

also included interpersonal and social facets. In the black / collectivist groups this general psychological well-being component also included conative facets.

In individualist groups, a secondary conative, behavioural readiness factor was distinguished, characterised by general self-efficacy beliefs, goal / future-directedness and flexibility in behaviour. In the collectivist group a secondary social satisfaction factor emerged that comprises of awareness of social support and satisfaction with life. Positive affect also to some extent, played a role in this factor. Satisfaction with life was more strongly associated with social support in groups from a more rural area (FORT, POWIRS, THUSA), than in the group from an urban area (VAAL), although the same pattern of well-being was found in the latter case. It was indicated that these findings resonate with the observation of Suh *et al.* (1998) that there may be a shifting basis of life satisfaction judgments across cultures, particularly in individualist vs. collectivist cultural contexts.

The patterns of psychological well-being and satisfaction with life thus differed somewhat in relatively individualist and relatively collectivist cultural groups. Satisfaction with life clustered with intra-psychological well-being in more individualist cultural groups and with inter-personal components in more collectivist groups. This confirms the contention of Kitayama and Markus (2000 – in Diener & Suh 2000) that the very nature of what it means to be well takes culture-specific forms. This pattern seems to be stronger in relatively rural or rural-urban areas than in an urban group where cultural blending, and individualisation may already have taken place to a greater extent. These findings support Constantine and Sue's (2006) contention that cultural issues and related variables are primary influences in the manifestation of optimal human functioning and strengths. Findings from this study also suggested the existence different patterns of interpersonal well-being within the individualist group (Getting vs. Giving) and between the individualist and collectivist groups (Inside-Out vs. Outside-In). The interpersonal component of psychological well-being in the individualist group fell out as Getting/Receiving and Giving facets. These facets were interpreted as in line with the distinction made by Taylor, Kemeny, Reed, Bower, and Gruenewald (2000) between "befriending" and "tending". The interpersonal components were viewed as determined by individual attitudes and preferences, and therefore described as a form of Inside-Out relating. In collectivist groups, the interpersonal component of psychological well-being was described as a Social Satisfaction facet, characterised by satisfaction with life, perceived social support, and automatic positive expectations of others and daily life.

Implications of the findings from article / manuscript 2 were pointed out, namely, models of psychological well-being should take cognisance of the existence of various cultural patterns in psychological well-being; and that interventions to enhance psychological well-being must be sensitive to cultural context. Indigenous knowledge of what contributes to satisfaction with life should be integrated in efforts to promote healthy life styles and quality of life. It is recommended that future research should also explore the nature and dynamics of psychological well-being with the aid of qualitative methods that may be more sensitive to pick up subtle cultural components.

The third article represented an in-depth review of the applicability of knowledge from the domain of positive psychology /psychofortology, with specific reference to assessment, interventions, life-span development and application in various contexts. The main findings were that deductions from theory and experimental research in positive psychology had already found their way to practice, and have in some instances been followed up by empirical evaluation of the effectiveness of interventions, be it for therapeutic, remedial, preventative and /or promotive purposes. Positive interventions and capacity building based on theory and findings from experimental research in positive psychology, were found to be applicable over the total life-span (children, adolescents, adulthood and the elderly) as well as in various contexts (e.g. such as education, therapy, health promotion, work), and on individual, community and public policy levels. A great lacunae identified in existing research, was that practically no research done had taken specific cultural factors in the development and evaluation of interventions into account. However, many researchers contend that this should be done.

Implications of the findings from the review reported in article 3, are that much more effort should be made by psychologists in practice to also include assessments and intervention strategies developed from a positive perspective in their clinical work, as well as in preventative and promotive programmes to enhance psychological health. A special advantage is that interventions from a positive perspective can bring benefit to many people on the complete mental health continuum, and not only to the minority with serious problems or who are at risk of developing problems. As most of the existing findings are from a western context, it is recommended that future research should explore the applicability of various measures, positive therapeutic interventions, and specific empirically validated promising strategies to enhance positive affect and the experience of meaningfulness, in various cultural contexts. The necessity hereof is indicated by the findings of

Tkack and Lyubomirsky (2006) that preferred happiness-enhancing strategies differ to some extent between individualist and (Eastern) collectivist cultural groups. Individualist groups preferred active leisure such as activities that lead to high-arousal positive emotions (enthusiasm and excitement), whereas the collectivist groups preferred passive leisure activities with low-arousal emotions (being calm and tranquil). Tkack and Lyubomirsky (2006) indicated that a priority area for future research should be the investigation of happiness-enhancing strategies in various cultural contexts. It was indicated in article 3 that no information exists on what African, relatively more collectivist groups would prefer, and that it cannot be assumed that African 'collectivism', although similar in some respects, is exactly the same as East Asian 'collectivism' in all cultural values and preferences, and that further research in this regard is necessary. It is further recommended that future research also probe into the variability of psychological well-being over time, and how such dynamics influence processes to enhance well-being in various contexts and in different phases of life. The specific dynamics that are playing a role in the positive effect of interventions also need to be determined. Little or no attention has thus far been paid to the application of positive psychology to the evaluation of interventions aimed at developing positive or healthy organisations. This is an area for future research.

A main conclusion across the different studies reported in this thesis (articles 1-3), is that cultural contexts and variables certainly need to be taken into account in research and practice of positive psychology. In this regard South Africa is a wonderful "research laboratory" with many opportunities. Cultural variables should also be viewed as much broader than the traditional individualist versus collectivist distinctions. The role of other contextual and mediating variables such as socio-economic factors, gender, educational levels, rural versus urban variables, developmental phases, and changes over the life-span, also need to be taken into account. In this regard Temane and Wissing (2006) has already made an important contribution by illustrating the mediating roles of spirituality, subjective perceptions of health, and personality factors in the dynamics of contextual factors and psychological well-being in the South African context. In this thesis, and in particular in manuscript 2, it was argued that (South) African collectivism may be different in some respects from East Asian collectivism (more sunny and out-reaching in comparison to the more tempered reserved Asian behavioural style). This hypothesis needs to be explored empirically in further research.

It may be appropriate in closing, to note the importance of awareness that positive psychology is also only an approach or perspective in psychology, and that the discipline as a whole has much more to offer. This stance resonates with that of Linley (2006) and Linley, Joseph, Harrington and Wood's (2006) who contended that positive psychology should in future also pay more attention to the synthesis of the positive and negative in human experience and behaviour, integrate findings across various levels of analyses, and take proper note of the differences between description and prescription.

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