

T

The relationship between coping strategies and depression in an African context

Anneke Cronje

20051549

Mini-dissertation (article format) submitted in partial fulfilment of the requirements for the degree *Magister Artium* in Research Psychology at the Potchefstroom Campus of the North-West University

Supervisor: Prof. Q.M. Temane

Co-supervisor: Prof. M.P. Wissing

May 2011

Table of Contents

Acknowledgements	i
Letter of consent	ii
Instructions to authors	iii
Summary	viii
Opsomming	x
Manuscript for examination	1
Abstract	2
Introduction	3
Hypothesis	9
Aim and objectives	9
Research design	9
Quantitative design	9
Participants	9
Procedure	10
Methodology	11
Data collection	11

Measuring instruments	11
Data analysis	13
Ethical considerations	13
Results	13
Discussion	18
Conclusion	21
References	23

Acknowledgements

- To God for His guidance; I appreciate everything He has allowed to cross my path for it has enabled me to complete this task.
- My supervisor, Prof. Michael Temane, for his patience, insight and knowledge. I am truly thankful for all the hard work and time he has invested in helping me.
- To my co-supervisor, Prof. M.P. Wissing for allowing me to do this study within her project
- Thank you to all my friends and family members for their love and support.

Letter of consent

We, the supervisor and co-supervisor, hereby give consent for Anneke Cronje to submit the following manuscript for the purpose of a dissertation (article format): **The relationship between coping strategies and depression in an African context**

It may also be submitted to the Journal of Psychology in Africa for publication.

Prof. Q.M. Temane
Supervisor

Prof. M.P. Wissing
Co-supervisor

Intended journal: Journal of Psychology in Africa**Instructions to authors**

The **Journal of Psychology in Africa** includes original articles, review articles, book reviews, commentaries, special issues, case analyses, reports, special announcements, etc. Contributions should attempt a synthesis of local and universal methodologies and applications. Specifically, manuscripts should: 1) Combine quantitative and qualitative data, 2) Take a systematic qualitative or ethnographic approach, 3) Use an original and creative methodological approach, 4) Address an important but overlooked topic, and 5) Present new theoretical or conceptual ideas. Also, all papers must show an awareness of the cultural context of the research questions asked, the measures used, and the results obtained. Finally the papers should be practical, based on local experience, and applicable to crucial development efforts in key areas of psychology.

Editorial Policy

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

Editor reserves the right to revise the final draft of the manuscript to conform to editorial requirements.

Manuscripts

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

Manuscript Format

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

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

Author(s) and Address(es) of Author(s): The corresponding author must be indicated. The

authors' respective addresses where the work was done must be indicated. An e-mail address, telephone number and fax number for the corresponding author must be provided.

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

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

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

Reference list: Full references should be given at the end of the article in alphabetical order, using double spacing. References to journals should include the author's surnames and initials, the full title of the paper, the full name of the journal, the year of publication, the

volume number, and inclusive page numbers. Titles of journals must not be abbreviated.

References to books should include the authors' surnames and initials, the year of publication, the full title of the book, the place of publication, and the publisher's name. References should be cited as per the examples below (please note the absence of punctuation): Appoh, L. (1995). *The effects of parental attitudes, beliefs and values on the nutritional status of their children in two communities in Ghana*. Unpublished masters dissertation, University of Trondheim, Norway

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

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

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

Tables: Tables should be either included at the end of the manuscript or as a separate file.

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

Figures/Graphs/Photos: Figures, graphs and photos should be provided in graphic format (either JPG or TIF) with a separate file for each figure, graph or photo. Indicate the correct placement by indicating the insertion point in brackets, e.g., <Insert Figure 1 approximately here>. Provide the title for the item and any notes that should appear at bottom of item in the manuscript text. Items should be cropped to avoid the appearance of superfluous white space

around items. Text on figures and graphs should be Helvetica to maintain consistency. Figures must not repeat data presented in the text or tables. Figures should be planned to appear to a maximum final width of either 80 or 175 mm. (3.5 or 7.0"). Complicated symbols or patterns must be avoided. Graphs and histograms should preferably be two-dimensional and scale marks provided. All lines should be black but not too heavy or thick (including boxes). Color only in photos or color sensitive graphic illustrations. Extra charges will be levied for color printing.

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

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

Instructions to authors are available at: <http://www.elliottfitzpatrick.com>

Summary

The relationship between coping strategies and depression in an African context

Depression is a psychiatric disorder associated with severe impairment in physical, social and role functioning, and with higher health care utilization. Experiencing an event that causes physical or psychological stress may substantially increase a person's chances of developing depression. Coping has been defined as a response aimed at diminishing the physical, emotional and psychological burden that is associated with stressful life events. Coping is considered one of the core concepts in health psychology and is strongly associated with the regulation of emotions throughout the stress period and thus it is important that it is understood, especially in the South African context of future morbidity.

The purpose of this study was to determine whether there is a relationship between coping self-efficacy strategies and depression in an African context. Participants consisted of a convenience sample of 2 198 participants from both rural and urban areas. The rural group consisted of 182 adolescent Further Education and Training (FET) students between the ages of 16 and 21 years, and the urban group consisted of another 2 016 adolescent FET students between the ages of 16 and 21 years. Participants from both groups completed measurements on coping and depression. Two self-report measures were used: the Coping Self-Efficacy Scale (CSE) to determine a person's confidence or perceived self-efficacy in performing coping behaviors when facing life challenges or threats and the Patient Health Questionnaire (PHQ9) to measure depression severity.

Descriptive analysis results indicated that a relationship existed between coping self-efficacy strategies and depression and that levels of depression were very similar for both rural (9.23) and urban (9.25) groups. Coping strategies were very different in rural and urban areas; rural participants only used problem-focused coping and stop unpleasant thoughts and emotions, while urban participants used all three coping self-efficacy strategies: problem-focused coping, stopping unpleasant thoughts and emotions and support from friends and family. Rural participants did not use support from friends and family as a coping self-efficacy strategy; possibly due to the different relationships people living in rural areas have with one another, as opposed to the relationships of people living in urban areas. Rural people may not deem it socially acceptable to ask friends or family members for help when struggling with various stressors. Alternatively, rural areas may be more depleted of personal resources due to the strong urbanization process going on.

It was concluded that there is an important relationship between coping strategies and level of depression, and in this study this relationship was found to be different in some ways for rural and urban groups. The results of this study have great implications for further research and clinical practice.

Keywords: Depression, coping, Patient health questionnaire (PHQ9), Coping Self-Efficacy Scale (CSE), rural South Africa; urban South Africa.

Opsomming

Die verhouding tussen beheerstrategieë en depressie in 'n Afrika-konteks

Maak in lyn met bg opmerkings

Depressie is 'n psigiatryse versteuring wat geassosieer word met erge verswakking van fisieke, sosiale en rol-funksionering en met hoër gebruik van gesondheidsorg. Die ervaring van 'n gebeurtenis wat lei tot fisieke of psigologiese stres kan moontlik die ontwikkeling van depressie tot gevolg hê. Die beheer van depressie word gedefinieer as die reaksie gemik op die vermindering van fisieke, emosionele en psigologiese druk wat geassosieer word met stresvolle lewensgebeurtenisse. Beheer van depressie is een van die kernkonsepte in gesondheidspsigologie en word sterk geassosieer met die regulering van emosies tydens die stresperiode. Dit is dus belangrik om te verstaan, veral in die konteks van die Suid-Afrikaanse morbiditeitsyfer.

Die doel van die studie was om vas te stel of daar wel 'n verband tussen 'n persoon se selfvertroue aangaande sy vermoë om depressie te beheer en depressie in die Afrika-konteks is. Deelnemers het bestaan uit 'n gerieflikheidsteekproef van 2 198 persone afkomstig van plattelandse en stedelike areas. Die plattelandse groep het bestaan uit 182 adolessente, Verdere Onderwys en Opleiding-studente, tussen die ouderdom van 16 en 21 jaar en die stedelike groep uit 2 016 adolessente, Verdere Onderwys en Opleiding studente, tussen die ouderdom van 16 en 21 jaar. Deelnemers uit beide groepe het metings aangaande die beheer en ervaar van depressie voltooi. Twee vraelyste is self deur die deelnemers voltooi. Die 'Patient Health

Questionnaire' (PHQ9) is gebruik om die erns van die deelnemer se depressie te bepaal en die 'Coping Self-Efficacy' skaal is gebruik vir die meting van 'n persoon se selfvertroue aangaande sy/haar vermoë om die drie strategieë wat depressie help beheer te implementeer wanneer hy/sy met stresvolle situasies gekonfronteer word.

Beskrywende analise dui daarop aan dat daar wel 'n verband bestaan tussen die beheerstrategieë en vlak van depressie en dat die PHQ9-uitslae vir beide plattelandse (9.23) en stedelike (9.25) groepe baie dieselfde is. Beheer van depressie was verskillend in plattelandse (159) en stedelike (173.08) gebiede; plattelandse deelnemers het slegs gebruik gemaak van probleem-gefokusde beheer en stop onaangename gedagtes en emosies, terwyl stedelike deelnemers gebruik gemaak het van al drie beheerstrategieë, naamlik probleem-gefokusde beheer, stop onaangename gedagtes en emosies en ondersteuning van vriende en familie. Die plattelandse deelnemers het moontlik nie gebruik gemaak van die beheerstrategie ondersteuning van vriende en familie nie omdat die verhouding tussen persone in 'n plattelandse omgewing verskil van die verhouding tussen persone wat in die stad woon. Plattelandse deelnemers het dit moontlik nie as sosiaal aanvaarbaar beskou om vriende en familie om hulp te vra wanneer hulle met stresvolle situasies gekonfronteer word nie.

Daar is tot die gevolgtrekking gekom dat daar 'n belangrike verband bestaan tussen beheerstrategieë en vlak van depressie. In hierdie studie is bevind dat hierdie verband ietwat verskillend is in plattelandse en stedelike gebiede. Die resultate van hierdie studie het belangrike implikasies vir beide verdere navorsing en die kliniese praktyk.

Sleutelwoorde: Depressie, beheer van depressie, Patient Health Questionnaire (PHQ9), Coping Self-Efficacy Scale (CSE), plattelandse Suid-Afrika en stedelike Suid-Afrika.

Manuscript for examination

The relationship between coping strategies and depression in an African context

Anneke Cronje

Q. Michael Temane

Marié. P. Wissing

School for Psychosocial Behavioural Sciences

North-West University (Potchefstroom Campus)

Address correspondence to Prof Q.M. Temane, School for Psychosocial Behavioural Sciences,
North-West University (Potchefstroom Campus), Private Bag X6001, Potchefstroom, 2520,
South Africa. Michael.Temane@nwu.ac.za

Abstract

The purpose of this study was to establish whether a relationship existed between coping self-efficacy strategies and levels of depression in rural and urban youth. The convenience sample (182 = rural and 2 016 = urban) was assessed by the Coping Self-Efficacy (CSE) Scale and the Patient Health Questionnaire (PHQ9). The results of the study indicate that there is a relationship between coping self-efficacy strategies and levels of depression and that the depression scores were very similar for both rural and urban groups. There were some differences in choice of coping self-efficacy strategies for both urban and rural participants. It was concluded that specific intervention strategies may contribute positively to the overall well-being of participants.

This study was undertaken in an attempt to explore the differential relationships between coping self-efficacy strategies and the level of depression in an African context. Coping is considered to be one of the core concepts in health psychology and is strongly associated with the regulation of emotions throughout the stress period (Tuncay, Musabak, Gok & Kutlu, 2008). It is therefore important to understand what coping entails, especially in the South African context where the distribution of mental health services is still skewed between rural and urban areas in favor of the latter. Emotion-focused coping strategies, for example, have been shown to predict burden 15-18 minutes later (Vitaliano, Russo, Young & Teri, 1991). Understanding these relationship may help identify the predominant strategies used so that interventions can be put in place. It is not clear in the literature whether different levels of depression are associated with specific coping strategies or not.

The onset and resolution of depression can be predicted by whether a person actively confronts stressful situations (e.g. asking for advice) with problem-focused coping or emotion-focused coping (emotional regulation), versus avoidant behaviors (e.g. using denial to withdraw from the situation) (Hegl, Oxman, Hull, Swain, & Swick 2006) . However, many studies have shown that problem-focused coping strategies are associated with less anxiety, thus contributing to diminishing depression, while emotion-focused coping strategies are associated more with anxiety, thus leading to increased depression (Tuncay et al., 2008). Few if any studies have addressed and explored this question regarding levels of depression and coping self-efficacy strategies in an African context.

A study such as the present one may be beneficial in developing stress management programmes that focus on interventions for developing coping strategies in patients with

depression, so as to reduce negative health outcomes and morbidity that is associated with depression, thus facilitating optimal psychological functioning. Hutchinson, Stuart and Pretorius (2007) contend that it is beneficial to investigate factors facilitating well-being in young people, as they are required to cope with numerous stressors whilst simultaneously transitioning from being an adolescent to becoming an adult. According to the *Dictionary of Psychology* (Reber & Reber, 2001), a stressor is '[a]nything physical or psychological that produces stress'. Coping as an index of individual well-being is a desirable state. It is believed that this study will make it possible to understand how coping self-efficacy strategies are related to depression. The various factors relevant in achieving such an understanding include the different levels of depression a person might experience and the possible coping strategies implemented. These various factors and their measuring instruments are discussed in more detail below.

The Patient Health Questionnaire (PHQ9) and depression: The PHQ9 is a self-administered scale to indicate a score on each of the DSM-IV criteria so as to measure the severity of depression (Kroenke, Spitzer & Williams, 2001). According to Kroenke and Spitzer (2002) a PHQ9 score of 15 or greater has sensitivity for major depression, while a score less than 10 seldom occur in individuals with major depression. Kroenke and Spitzer (2002) found that in the 10 to 14 zone, increasing PHQ9 scores are associated with increasing specificity and declining sensitivity. This sensitivity to the PHQ9 scale will influence the type of coping self-efficacy strategies a person suffering from depression should incorporate, depending on his/her score. However the adaptive qualities of various coping self-efficacy strategies must be evaluated in the context of depression, before a conclusion on their effectiveness can be

reached. In this study depression was conceptualized in line with the PHQ9 scale as implemented by Kroenke et al. (2001) and it was expected that levels of depression will be significantly correlated with coping self-efficacy strategies.

Depression is a significant burden of illness with high prevalence in primary health care, but with insufficient treatment response (Gensichen et al., 2005). Depression is associated with severe impairment in physical, social and role functioning, and with higher health care utilization (Martin, Winfried, Klaiberg & Braehler, 2006). According to Gensichen et al. (2005) patients with depression account for 50% higher health care costs than patients who are not depressed. Furthermore the outcome of depression is not the same for all patients. Trump and Hugo (2006) refer to the South Africa Association of Psychiatry's study on the pervasiveness of mental illness in South Africa, in which it was concluded that 58% of visits to general practitioners were due to conditions caused or exacerbated by mental or emotional problems, where one in four people will develop depression over the course of their lifetime. In comparison with data from other countries, South Africa has lower rates of depression than the USA but higher rates than Nigeria (Tomlinson, Grimsrud, Stein, Williams & Myer, 2009). A study conducted in the Western Cape, South Africa on the most common unadjusted prevalence rate for depression, found that major depressive disorders and dysthymia accounted for 15% among adults and 8% among children and adolescents (Kleintjes et al., 2006). This study is thus an important contribution to the knowledge of how to prevent depression from occurring and how to cope with depression once it has occurred; thus decreasing morality rates caused by suicide in South Africa.

Galea et al. (2007) points out that evidence suggest that certain characteristics, such as the social disorganization of the rural environment, may influence populations' mental health. These authors found that 'the quality of the social and built environments of rural neighborhoods may contribute directly to the elevated risk of depression' (p. 175). People living in rural neighborhoods may be exposed to a greater number of stressors such as the exposure to traumatic experiences (rape and violence) and less access to useful resources. In contrast, according to Wang (2003) individuals living in urban areas may be at greater risk of depression than those living in rural areas because of the decline in community relationships and social isolation in the city. Family and marital disintegration, limited social networks and the greater stresses with work and housing may increase the risk of mental disorders (Wang, 2003). Wang (2003) found that people living in urban areas were more likely than people living in rural areas to be single, divorced, separated or widowed. Urban growth in South Africa leads to the urbanization of the country, caused by rural-urban migration and natural population growth (Seager, 1992). Urbanization in developing countries such as South Africa involves changes in social support and life events, which have been shown to affect mental health; mainly depression and anxiety (Harphan, 2007). Seager (1992) points out that urbanization has a wide impact upon the health of South Africans, with factors such as poverty, unemployment and weak social services leading to more stress-related cases more frequently. Thus, it is expected that the results may show social context differences between urban and rural dwellers in terms of the relationship between levels of depression and coping self-efficacy strategies used.

Depression and social dynamics: Social context has been shown to play a role in depression (Kelly, Sereika, Battista & Brown, 2007). Beliefs about depression and its causes vary in the

South African population as a whole and these beliefs further influence people's thinking concerning appropriate coping self-efficacy strategies (Kelly et al., 2007) – possibly because of contextual differences. Many of the different ways in depression manifests have been reported in the context of Western countries as opposed to African countries such as South Africa, where rural and urban contexts differ in terms of education, age and gender.

Tomlinson et al. (2009) found that the prevalence of major depression was significantly higher among those with a low average level of education, people with Grade 1-7 schooling being 2.11 times more likely to have experienced major depression during their lifetime. Major depression was also significantly higher among people between the ages of 40 and 49 years, who were 1.71 times more likely to experience major depression during their lifetime than other age groups. According to Tomlinson et al. (2009) the mean age of onset of major depression in South Africa is 25.8 years, 26 years for females and 25.6 years for males. In the present study comparisons are made only in terms of urban and rural differences, although sociodemographic differences may be an interesting aspect to be investigated in a future study.

Hutchinson et al. (2007) argue that globally young people are increasingly experiencing life as hopeless and meaningless, both contributing factors to developing depression. Meehan, Pierson and Fridjon (2007) claim that the youth in South Africa experience depression due to high levels of violence and family problems, alcohol and drug abuse, extreme poverty, unemployment, and a lack of social infrastructure, resulting in inadequate educational, health, housing, recreational, and transport facilities. Socio-economic differentials between urban and rural areas, especially in South Africa, may show different

results particularly because of the differences between urban and rural areas. This study focused particularly on participants who were students at a tertiary institution at the time of data collection.

Coping and coping self-efficacy strategies: According to Chesney, Neilands, Chamber, Taylor, and Folkman (2006) coping is defined as behavioural or cognitive efforts to manage situations that are appraised as stressful, where the external and/or internal demands of the situation exceed the person's resources. Put another way, coping has been defined as a response aimed at diminishing the physical, emotional and psychological burden that is associated with stressful life events (Tuncay et al., 2008). Therefore coping is the process of interaction between a person and situation and is dependent on a person's perceived ability to manage the stressor (Meehan et al., 2007).

Chesney et al. (2006) identify three types of coping self-efficacy strategies: *emotion-focused coping* (i.e. people try to process their emotions by acting and thinking), and *problem-focused coping* (i.e. responses that focus on changing problematic aspects of stressful events - this might include actively seeking support and taking advice or appraising the situation and searching for compromise). Chesney et al. (2006) found that '*[m]aladaptive coping* occurs when people respond to uncontrollable stressors primarily with problem-focused stressors, or when people respond to controllable stressors primarily with emotion-focused strategies' (p.422). This conceptualization was applied in the current study.

No specific studies concerning the relationship between specific coping self-efficacy strategies and depression in South Africa could be found. This study aims to address this gap

in knowledge and hopes to help the psychological field of study in developing a better understanding of South Africans suffering from depression and their treatment needs. The literature shows that different coping self-efficacy strategies will contribute either positively or negatively to a person's well-being, depending on the type of stressors with which that person is confronted; therefore the following hypothesis is proposed:

Aim and objectives. The aim of this study was to explore the relationship between coping self-efficacy strategies and levels of depression among a group of people living in rural and urban areas of South Africa

Hypothesis. There are differences in the coping self-efficacy strategies used by individuals at different levels of depression.

Method

Quantitative design

Secondary data analysis in a cross-sectional survey design was applied in this study.

Participants

There were 2 198 participants from both urban and rural areas in this study. The sample consisted of a convenience rural and urban sample that included both male and female participants. The rural group consisted of 182 adolescent further education and training (FET) students between the ages of 16 and 21, while the urban group consisted of another 2 016 adolescent FET students between the ages of 16 and 21.

Measuring instruments

Three measuring instruments were used in this study: the Coping Self-Efficacy Scale (CSE), the Patient Health Questionnaire: Depression symptoms (PHQ9) and the Socio-demographic Questionnaire. They are discussed in this section.

The **Coping Self-Efficacy Scale (CSE)** was developed by Chesney et al. (2006). The scale is a 26-item measure of a person's confidence or perceived self-efficacy in performing coping behaviors when facing life challenges or threats. It can also be used to assess changes in coping self-efficacy (CSE) over time (Chesney et al., 2006). Participants are asked, 'When things aren't going well for you, or when you're having problems, how confident are you that you can do the following:' after which they are required to rate the extent to which they believe they could perform behaviors important to adaptive coping such as 'Keep from getting down in the dumps', 'Take your mind off unpleasant thoughts' and 'Get friends to help you with the things you need.' The anchors of the 11-point scale are 0 ('Cannot do at all'), 5 ('Moderately certain can do') and 10 ('Certain can do'). The total CSE score is created by summing the item ratings (Chesney et. al., 2006). Chesney et al. (2006) reported a 13-item reduced form of the CSE with three factors: 'Use problem-focused coping' (6 items, $\alpha = .91$), 'Stop unpleasant emotions and thoughts' (4 items, $\alpha = .91$) and 'Get support from friends and family' (3 items, $\alpha = .80$). The internal consistency and test-retest reliability was found to be strong for all three factors (Chesney et al., 2006). For the purpose of this study the 26-item scale was used, as advised by Chesney (personal communication). A Cronbach alpha reliability index of 0.87 was obtained in the current study.

The **Patient Health Questionnaire: Depression Symptoms (PHQ-9)**, which was developed by Kroenke, Spitzer and Williams, (2001) is a 9-item, self-administered scale used to measure depression severity which scores each of the DSM-IV criteria as 0 ('Not at all') to 3 ('Nearly every day'). Participants were asked to rate how often they had been bothered by any problems such as the following over the last two weeks: 'Little interest/pleasure in doing things' and 'Thoughts that you would be better off dead/of hurting yourself in some way'. At the end of the scale, participants were asked to indicate how difficult these problems, if checked off, had made it for them to do their work, take care of things at home or get along with other people. Kroenke et al. (2001) found excellent test-retest reliability as well as internal reliability of the PHQ9 with a Cronbach alpha of 0.86.

In the **Socio-demographic questionnaire** participants were asked to state the area in which they lived: rural or urban.

Procedure

This study formed part of the Fort 3 project on psychosocial health and biomarkers in an African context (Wissing, 2008). The questionnaires that were used formed part of the FORT 3 project and had already been translated and validated in an African context (Wissing, 2008). The first step of the procedure was to translate the questionnaires which had not been translated into Setswana by the South African Translators' Institute accredited translators. For the purpose of this study the Coping Self-Efficacy Scale (CSE) and Patient Health Questionnaire: Depression Symptoms (PHQ9) were translated into Setswana and then translated back into English, a design known as Brislin's method of back-translation (as cited

in Foxcroft and Roodt, 2001). The translated versions were compared by use of the research committee approach as suggested by Van de Vijver and Leung (1997), taking into account the idiomatic expressions in Setswana. The second step of the procedure was to obtain consent from the different institutions to make sure they were willing to participate in the study. Thirdly, the questionnaires were filled in by the different groups under the supervision of people who have been trained in the taking down of tests and who in turn are supervised by registered psychologists. The questionnaires were only administered after informed consent letters had been obtained from the participants. Both rural and urban groups completed the English version of all scales. The translations were done from English to Setswana and then back to English so that semantic equivalence could be reached. This means that the words and sentence structure in the English questionnaire should express the same meaning as the source language.

The Ethics Committee of the North-West University approved this study. The approval number for this project is NWU-00002-07-A2. Informed consent was obtained from all participants prior to their participation and all personal information was treated as confidential.

Data analysis

Descriptive analyses of the study measures were calculated to determine central tendency. Means, standard deviation and Cronbach alphas are reported for all measures used in the study. Coping self-efficacy strategies were determined by using suggestions by Chesney et al. (2006) as follows: problem-focused coping, stopping unpleasant thoughts and emotions and

support from friends and family. Levels of depression were determined according to guidelines given by Kroenke et al (2002) who indicated that a score between 0-4 can be classified as minimum depression, 5-9 as mild depression, 10-14 as moderate depression, 15-19 as moderately severe depression and a score of 20-27 is classified as severe depression. Pearson chi-square (X^2) tests conducted in this project attested to the reliability and validity of measures.

Results

The mean score, standard deviation (SD) and coefficient alpha (α) for the Coping Self-efficacy (CSE) and Patient Health Questionnaire (PHQ9) for both rural and urban groups are presented in Table 1.

(Insert Table 1 about here)

The mean scores for the CSE in rural areas was lower (159) than the mean of the CSE in urban areas (173.08). The mean scores of the PHQ9 in both rural and urban areas fall within the grey zone of moderate depression as suggested by Kroenke and Spitzer (2002). In all cases, the measures used in this study are reliable based on the recommendation by Clarke and Watson (1995). Item analysis for the CSE scale revealed that the scale was reliable to use ($\alpha=0.87$). Item analysis also indicated reliability of PHQ9 measuring instrument ($\alpha=0.78$).

Table 2 represents the categories of depression as experienced by both rural and urban groups. Minimum depression is represented by a range of 0-4, mild depression by 5-9, moderate

depression 10-14, moderately severe depression 15-19 and severe depression by a range of 20-27.

(Insert Table 2 about here)

The majority of both rural (29.2%) and urban (35.4%) groups most frequently report mild depression (5-9 range). The data showed that the least frequently reported level was severe depression (20-27 range) 2.2% rural and 4.1% urban. A quarter of rural (27, 6%) and urban (25.8%) groups accounted for moderate depression (10-14 range). Rural 24.3% and 20% urban participants report minimum depression (0-4 range). Moderately severe depression (15-19) was reported by 15.1% of the participants from rural areas, and by 13% of the participants living in urban areas.

Table 3 shows the categories of coping self-efficacy (CSE) for both rural and urban groups. The three categories are problem-focused coping (PFC), stop unpleasant emotion and thought (SUE) and support from friends and family (SFF).

(Insert Table 3 about here)

Table 3 shows how, on average, these three forms of coping were used by both rural and urban groups. The three categories are problem-focused coping (PFC), stop unpleasant emotions (SUE), and support from friends and family (SFF). On average, these three forms of coping were used by both rural and urban groups. Although these coping self-efficacy strategies are used collectively it is evident that the majority of respondents, in rural (68.83) and urban (87.73) areas, used problem-focused coping. Rural (57.5) individuals reported stopping unpleasant emotions less than urban (59.1) individuals. The minority of participants,

rural (32.66) and urban (33.26), used support from friends and family as a category for coping.

Table 4 shows the relationship between the levels of depression an individual might be experiencing, and the chosen category of coping that an individual might decide to use in coping with the specific levels of depression, for both rural and urban groups. This relationship is presented in the form of a cross-tabulation reflecting observed frequencies of coping strategies by level of depression in both rural and urban areas.

(Insert Table 4 about here)

The Scheffé post hoc analysis showed that the level of depression, range 0-4 for example, differed significantly with all other levels in terms of the degree increase in coping used by participants. For the rural area, the association between levels of depression and the categories of coping were significantly associated for problem-focused coping and stop unpleasant thoughts and emotions, whereas in the case of the urban area all associations were significant, as seen in Table 5. For the sake of parsimony, the results are presented in two parts as Tables 4 and 5 where Table 4 provides only the categories of levels of depression and coping strategies in both rural and urban areas.

Table 5 shows the significance of the relationship for levels of depression and strategies for both rural and urban groups. As indicated above, although this should have been presented as one table with Table 4, the display is easier this way.

(Insert Table 5 about here)

Table 5 shows that there were significant differences in the coping strategies used in both rural and urban areas relative to levels of depression. In rural areas both problem-focused coping (PFC) ($p < 0.04$) and stopping unpleasant emotions (SUE) ($p < 0.01$) were significant. In urban areas all three coping factors were significant: PFC ($p < 0.01$), SUE ($p < 0.01$) and SFF ($p < 0.01$).

Discussion

The relationship between coping self-efficacy categories and level of depression were examined. There is a significant relationship between levels of depression and coping self-efficacy strategies as demonstrated in Tables 4 and 5. Although the results showed a significant relationship the level of significance was not consistent in the urban and rural participants. There was a higher significance for all coping strategies in the urban area at the 1% level of significance albeit with a lower practical significance in two cases. Urban participants used problem-focused coping, stopping unpleasant thoughts and emotions and support from friends and family. Rural participants only used problem-focused coping and stopping unpleasant thoughts and emotions as coping self-efficacy strategies. According to Tuncay et al. (2008) coping is strongly associated with the regulation of emotions throughout the stress period and problem-focused coping is associated with less anxiety, thus contributing to the diminishing of depression. This may be why both rural and urban individuals use problem-focused coping and stopping unpleasant thoughts and emotions as coping strategies. Rural participants did not make as often? use of support from friends and family, as urban participants did. This is possibly due to the social differences between rural and urban participants, where rural individuals might not believe it to be appropriate to ask friends or

family for help when struggling with various stressors. What about availability of resources in rural areas – urbanization is taking away many people as resources

According to the results of the categories of coping self-efficacy, the majority of rural and urban participants reported using problem-focused coping as their choice of category. Chesney et al. (2006) reported problem-focused coping to be best associated with controllable stressors and emotion-focused coping to be best associated with uncontrollable stressors. Past research suggest that rural stressors, such as poor hygiene and bad transport facilities, are categorized as uncontrollable situations (Galea et al., 2007). Therefore, rural participants who reported using problem-focused coping for uncontrollable stressors seemingly implement passive coping efforts, thus leading to increased feelings of helplessness and depression.

The mean urban respondents reported a higher coping self-efficacy score, than the average rural participant did. As coping is dependent on a person's perceived ability to manage stressors, this implies that urban participants perceive their stressors to be more easily managed and/or have more available mental health services that can help them manage their stressors than rural participants do (Chesney et al., 2006). Past research suggests that individuals living in rural areas are more frequently exposed to uncontrollable situations, such as rape, poverty and lack of knowledge (Wang, 2003). This might contribute to rural participants feeling less able to cope with stressors.

The majority of both rural and urban participants frequently reported mild depression (range 5-9), who's symptoms result in only minor impairment in occupational functioning or social/relationship functioning, according the PHQ9 scoring. However, it is clear from the results that urban participants reported severe depression (range 20-27) twice as frequently as

rural participants. Severe depression represents nearly all the symptoms of major depressive disorder and markedly interferes with daily functioning. As was mentioned by Tomlinson et al. (2009) this occurrence is possibly due to a decline in urban community relationships, leading to social isolation.

The mean scores for the PHQ9 for both rural (9.23) and urban (9.25) participants were quite similar, possibly due to both areas being influenced by the urbanization of South Africa. Harphan (2007) suggest that human beings seem to break down under overpopulated countries such as South Africa; decreasing disparities resulting in a high degree of social exclusion; changes in social support and life events which have been shown to affect mental health, mainly depression and anxiety. The present study is however not without limitations.

This study is limited due to the unequal numbers of rural and urban participants taking part, and the cross-sectional design; no conclusions could be drawn with regard to causation. Therefore, the relationship between variables are interpreted rather than established. The findings of the present study also have several implications. Individuals living in rural areas need easier access to mental health services; it is recommended that these individuals be educated about depression and available resources for coping. Even though individuals living in urban areas have access to many mental health services, they still experience depression. Urban individuals should be encouraged to prevent isolation by forming support structures among colleagues, friends and family members. It is recommended that a coping programme, which includes skill building, stress reduction, problem-solving techniques, and strategies to obtain social support tailored to each group, be developed. The programme developers should draw on the expertise of local academics and clinicians to promote research-informed

planning. It is essential for resources and coping programmes to be appropriate and cost effective. It also seems that it would be advantageous to include and promote programmes for preventative strategies for depression.

There is a lack of research related to developing mental health interventions that do not need to be delivered by mental health professionals. Further research of a qualitative nature may contribute to an understanding of sources of stress among rural and urban groups, as well as of their unique interpretations of the causes and management thereof. Such understanding of rural and urban experience of stress can assist in generating solutions.

Conclusion

The findings of this study provided essential information about well-being of both rural and urban South Africans concerning level of depression, coping self-efficacy strategies used and relationship that exist between coping self-efficacy strategies and level of depression. In summary this study has shown that the sample scored higher on problem-focused coping and scored lowest on support from friends and family. The results from the study have further indicated that both the rural and the urban individuals reported experiencing mild depression more frequently and reported experiencing severe depression less frequently. In general, it can be concluded that there is an important relationship between coping strategies and level of depression, and that in this study this relationship was found to be somewhat different for rural and urban areas. This contributes to the understanding of the relationship between coping strategies and depression in an African context and could lead to the development of coping programmes specifically tailored to both rural and urban groups in South Africa.

Further research into the causes and management of depression, from persons living the rural and urban areas, is suggested.

References

- Chesney, M.A., Neilands, T.B., Chamber, D.B., Taylor, J.M. & Folkman, S. (2006). A validity and reliability study of the coping self-efficacy scale. [Electronic version]. *British Journal of Health Psychology*, 11, 421 – 437.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7 (3), 309-319.
- Foxcroft, C. & Roodt, G. (2001). *An introduction to psychological assessment in the South African context*. Oxford: Oxford University Press.
- Galea, S., Ahern, J., Nandi, A., Tracy, M., Beard, J. & Vlahov, D. (2007). Urban neighborhood poverty and the incidence of depression in a population-based cohort study. [Electronic version]. *Annals of Epidemiology*, 17(3), 171 – 179.
- Gensichen, J., Torge, M., Peitz, M., Wendt-Hermainski, H., Beyer, M., Rosemann, T., Krauth, C., Raspe, H., Aldenhoff, J.B. & Gerlach, F.M. (2005). Case management for the treatment of patients with major depression in general practice – rationale, design and conduct of a cluster randomized controlled trial – PRoMPT (Primary care Monitoring for depressive Patient's Trial) [ISRCTN66386086] – study protocol. [Electronic version]. *BMC Public Health*, 5(101), 1 - 6.
- Harphan, T. (2007). Urbanization and mental health in developing countries: a research role for social scientists, public health professionals and social psychiatrists. [Electronic version]. *Social Science and Medicine*, 37(2), 233 – 245.

Hegel, M.T., Oxman, T.E., Hull, J.G., Swain, K. & Swick, H. (2006). Watchful waiting for minor depression in primary care: remission rates and predictors of improvements. [Electronic version]. *General Hospital Psychiatry*, 28, 205 – 212.

Hutchinson, A.K., Stuart, A.D. & Pretorius, H.G. (2007). Coping with stressors in late adolescents/young adulthood: a salutogenic perspective. [Electronic version]. *Health SA Gesondheid*, 12(3), 37 – 45.

Kelly, M.A.R, Sereika, S.M., Battista, D.R. & Brown, C. (2007). The relationship between beliefs about depression and coping strategies: Gender differences. [Electronic version]. *The British Psychological Society*, 46, 315 - 332.

Kleintjes, S., Flisher, A.J., Railoun, A., Lund, C., Molteno, C. & Robertson, B.A. (2006). The prevalence of mental disorders among children, adolescents and adults in the western cape, south Africa. [Electronic version]. *South African Psychiatry Review*, 9(3), 157 – 160.

Kroenke, K., Spitzer, R. L. & Williams, J.B.W. (2001). Validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16, 606 – 613.

Kroenke, K., & Spitzer, R.L. (2002). The PHQ-9: A new depression diagnostic and severity measure. *Psychiatric Annals*, 32(9), 1-7.

Martin, A., Winfried, R., Klaiberg, A. & Braehler, E. (2006). Validity of the brief patient health questionnaire mood scale (PHQ-9) in the general population. [Electronic version]. *General Hospital Psychiatry*, 28, 71 – 77.

Meehan, S., Peirson, A. & Fridjhon, P. (2007). Suicide ideation in adolescent south Africans: the role of gender and coping strategies. [Electronic version]. *South African Journal of Psychology*, 37(3), 552-575.

Reber, A.S. & Reber, E.S. (2001). *Dictionary of Psychology*. (3rd ed., pp.716). New York: Penguin Books.

Seager. J.R. (1992). Urbanization and public health: the challenge, the effects and the need for intersectoral collaboration. [Electronic version]. *The Civil Engineer in South Africa*, 295-298.

Tomlinson, M., Grimsrud, A.T., Stein, D.J., Williams, D.R. & Myer, L. (2009). The epidemiology of major depression in south Africa: results from the south african stress and health study. *South Africa Medical Journal*, 99(5), 368 – 373.

Trump, L. & Hugo, C. (2006). The barriers preventing effective treatment of south african patients with metal health problems. [Electronic version]. *South African Psychiatry Review* 9(4), 249, 251, 253, 255, 257, 259-260.

Tuncay, T., Musabak, I., Gok, D.E. & Kutlu, M. (2008). The relationship between anxiety, coping strategies and characteristics of patients with diabetes. [Electronic version]. *Health and Quality of Life Outcomes*, 6(79), 1 - 9.

Van de Vijver, T. & Leung, K. (1997). *Methods and Data Analysis for Cross-Cultural Research*. Sage, London.

Vitaliano, P.P., Russo, J., Young, K.M., & Teri, L. (1991). Predictors of burden in spouse caregivers of individuals with Alzheimer's disease. *Psychology and Aging, 6*(3), 329 – 402.

Wang, J.L. (2003). Rural-urban differences in the prevalence of major depression and associated impairment. [Electronic version]. *Social Psychiatry and Psychiatric Epidemiology, 39*, 19 – 25.

Wissing, J.A.B., Wissing, M.P., Du Toit, M.M. & Temane, Q.M. (2008). Psychometric properties of Various Scales Measuring Psychological Well-Being in a South African Context: The FORT 1 Project. *Journal of Psychology in Africa, 18*(4), 18(4), 511-520.

Wissing, M. P. & Temane, Q. M (2008). The structure of psychological well-being in cultural context: Towards a hierarchical model of psychological health. *Journal of Psychology in Africa, 18*(1), 45-56.

Table 1

Descriptive statistics of measures

Group	Statistic	Measure	
		CSE	PHQ
Rural	Mean	159	9.23
	SD	38.64	5.5
	α	0.87	0.76
Urban	Mean	173.08	9.25
	sd	34.33	5.37
	α	0.87	0.78

Note: CSE= Coping Self-Efficacy Scale; PHQ9= Patient Health Questionnaire

Table 2

Levels of depression for rural and urban areas

Levels of depression	Rural		Urban	
	f	%	f	%
0 - 4	45	24.3	410	20
5 - 9	54	29.2	726	35.4
10 - 14	51	27.6	528	25.8
15 - 19	28	15.1	267	13
20 - 27	4	2.2	85	4.1
Total	182	98.4	2016	98.4

Table 3

Categories of coping self-efficacy (CSE) in rural and urban areas

Categories of CSE	f	Rural		f	Urban	
		Mean	sd		Mean	sd
CSE_PFC	182	68.83	18.81	2012	87.73	16.96
CSE_SUE	183	57.7	15.77	2012	59.1	13.93
CSE_SFF	181	32.66	9.53	2012	33.26	9.34

Note: CSE_PFC= Coping self-efficacy, problem-focused coping; CSE_SUE= Coping self-efficacy; stop unpleasant thoughts and emotions; CSE_SFF= Coping self-efficacy, support from family and friends

Table 4

Levels of depression and coping strategies used in rural and urban groups

	Rural			Urban		
PHQ Levels	CSE_PFC	CSE_SUE	CSE_SFF	CSE_PFC	CSE_SUE	CSE_SFF
0 - 4	42	44	44	408	407	408
5 - 9	52	54	52	716	715	716
10 - 14	49	50	50	513	513	513
15 - 19	27	28	28	262	262	262
20 - 27	4	4	4	83	83	83

Note: PHQ= Patient Health Questionnaire; CSE_PFC= Coping self-efficacy problem-focused coping; CSE_SUE= Coping self-efficacy stop unpleasant thoughts and emotions; CSE_SFF= Coping self-efficacy support from friends and family

Table 5

Coping self-efficacy categories for rural and urban groups

Statistics	Rural			Urban		
	CSE_PFC	CSE_SUE	CSE_SFF	CSE_PFC	CSE_SUE	CSE_SFF
χ^2	10.16	14.16	3.37	79.48	108.88	52.63
df	4	4	4	4	4	4
p	0.04	0.01	0.5	0.01	0.01	0.01
eta	0.24	0.28	0.14	0.16	0.22	0.14

Note: CSE_PFC= Coping self-efficacy problem-focused coping; CSE_SUE= Coping self-efficacy stop unpleasant thoughts and emotions; CSE_SFF= Coping self-efficacy support from friends and family