

**PERCEPTIONS OF BIOPSYCHOSOCIAL
HEALTH OF A GROUP OF FARM
WORKERS IN THE NORTHWEST
PROVINCE**



TALITA VAN DER WESTHUIZEN

**PERCEPTIONS OF BIOPSYCHOSOCIAL HEALTH OF
A GROUP OF FARM WORKERS IN THE NORTHWEST
PROVINCE**

TALITA VAN DER WESTHUIZEN

B.Sc. Hons. (Psychology)

**Dissertation (article format) submitted in fulfilment of the
requirements for the degree Magister Scientiae in Psychology at the
Potchefstroom University for CHE**

SUPERVISOR

Dr. K. F. H. BOTHA

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This is a quilt with episodes of DIVINE intervention, and HE sometimes used people to embody them.

Dr. Karel F.H. Botha: Life turns and churns and just sometimes you sail past a gentle giant and the turns and churns spell out ‘meaningful’... and you know that this was a humbling experience: Thank you, sir.

To all involved with the THUSA-study, I extend my appreciation for the platform from which the FLAGH-study, under the guardianship of Annemarie Kruger, could be launched. Thank you to the fieldworkers who gathered in the harvest.

Prof. M.P. Wissing: you are knowledge personified-and it becomes you. Thank you for sharing it without reservation.

Wilma Breytenbach, I thank thee for patience and produce.

A special word of thanks to Ms. L. Vos and the staff at the Ferdinand Postma Library, who made this the single most accommodating library experience, I have ever had.

Prof. A.L. Combrink: Thank you for the cherry.

To my safety net: “ Mom, you ‘are’ against all odds-thank you”.

SUMMARY

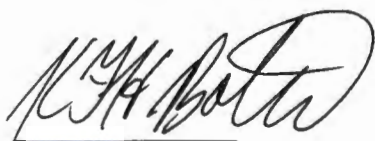
The study investigates the biopsychosocial health perceptions of a group of farm workers and the relation between these perceptions and their health status. It forms part of the FLAGH Study (Farm Labour, Agriculture and General Health), which succeeds the THUSA Study (Transition and Health during Urbanization in South Africa; 'Thusa' is the Setswana word for 'help'). The THUSA Study indicated that the biopsychosocial health status of farm workers in the Northwest Province is low in comparison with that of people living in deep rural areas, in cities, in townships close to cities, and even in squatter camps. Both managers and farm employees are exposed to substantial risk of injury and illness in their daily tasks. Cross-cultural research has highlighted the influential role of health beliefs in shaping responses to health messages and subsequent health behaviour. In the traditional African cultural setting, health and illness, as is the case with life and death, are intertwined. Fifty-two male and female Setswana-speaking farm workers, 18-60 years old, participated. They are farm labourers – full-time or seasonal - on two adjacent farms in the Potchefstroom District in the Northwest Province of South Africa, where farming involves production of maize, cattle, sunflowers and peanuts. Five empirical questionnaires outlined the quantitative part of the investigation: SRQ, GHQ, HBQ, MHLOCS, SOC. A qualitative study was done in the form of interviews. It was found that farm workers' biopsychosocial health perceptions are characterized by physical vulnerability, low sense of coherence and non-committal health beliefs. They tend to focus more on the physical aspects of biopsychosocial health and factors that restrict health rather than contribute to or enhance health. It is recommended that all related variables, especially worker-manager relationship, land-ownership issues, and health literacy be investigated and intervention programmes based on these findings be implemented.

OPSOMMING

Hierdie studie ondersoek die biopsigososiale gesondheidpersepsies van 'n groep plaasarbeiders en vra oor die verband tussen hul persepsies en hul gesondheidstatus. Dit maak deel uit van die FLAGH-studie (Farm Labour, Agriculture and General Health), wat voorafgegaan is deur die THUSA-studie (Transition and Health during Urbanization in South Africa; 'Thusa' is die Tswana woord vir 'help'). Dié studie het aangetoon dat die biopsigososiale gesondheidstatus van plaasarbeiders in die Noordwes-provinsie, laag is in vergelyking met mense op die platteland, in stede, in swart woongebiede naby stede en selfs dié in plakkerskampe. Bestuurders en plaasarbeiders is beide besonder blootgestel aan beserings en gesondheidsrisiko's en dit op 'n daaglikse basis. Kruiskulturele navorsing toon duidelik dat gesondheidpersepsies 'n aanleidende rol speel in gesondheidsgedrag. In die tradisionele Afrika-kultuur, is gesondheid en siekte net so verweef soos lewe en dood. Twee en vyftig deelnemers (manlik en vroulik), Tswana-sprekend, tussen 18-60 jaar oud, is betrek. Hulle is almal arbeiders - voltyds of seisoenaal - op twee aangrensende plase in die Potchefstroom omgewing in die Noordwes-provinsie van Suid-Afrika. Daar word mielies, sonneblomme en grondbone verbou en beeste en skape word op klein skaal aangehou. Vyf empiriese skale is gebruik in die kwantitatiewe faset van die studie: SRQ, GHQ, HBQ, MHLOCS, SOC. Die kwalitatiewe faset is met behulp van persoonlike onderhoude gedoen. Die uitkoms van die studie dui daarop dat plaasarbeiders fisies baie kwesbaar is, 'n lae koherensiesin het en onbeduidende gesondheidpersepsies het. Hulle fokus op die fisiese aspekte van biopsigososiale gesondheid en beklemtoon faktore wat gesondheid belemmer ten koste van faktore wat gesondheid onderhou. Daar word aanbeveel dat veranderlikes soos werkgewer/werknemerverhoudinge, grondeienaarskap en basiese gesondheidskennis na behore nagevors word en intervensies op grond van bogenoemde faktore gedoen word.

CONSENT

I, the co-author, hereby give consent that Talita van der Westhuizen may submit the manuscript for purposes of a dissertation. It may also be submitted to the *South African Journal of Psychology* for publication.

A handwritten signature in black ink, appearing to read 'K.F.H. Botha', written over a horizontal line.

Dr. K.F.H. Botha

Potchefstroom

October 2002

INTENDED JOURNAL AND GUIDELINE FOR AUTHORS

South African Journal of Psychology (SAJP)

The manuscript as well as the reference list has been styled according to the SAJP's specifications (guidelines for authors on the next page).

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MANUSCRIPT

MANUSCRIPT TITLE, AUTHORS AND ADDRESSES

**THE BIOPSYCHOSOCIAL HEALTH PERCEPTIONS OF
A GROUP OF FARM WORKERS**

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ABSTRACT

The purpose of this study was to determine the biopsychosocial health perceptions of a group of farm workers and the relationship between these perceptions and their health status. An availability sample of 52 male and female Setswana-speaking farm workers, 18-60 years old, was used. Data were obtained with five empirical questionnaires: SRQ, GHQ, HBQ, MHLOCS, SOC. A qualitative study was done in the form of semi-structured interviews. It was found that farm workers' biopsychosocial health perceptions are characterized by physical vulnerability, low sense of coherence and non-committal health beliefs. They tend to focus more on the physical aspects of biopsychosocial health and factors that restrict rather than contribute to or enhance health. It is recommended that all related variables, especially worker/manager relationships, land-ownership issues and health literacy be investigated.

INTRODUCTION

Vorster¹ *et al.* (2000) found that the biopsychosocial health status of farm workers in the Northwest Province is low in comparison with that of people living in deep rural areas, in cities, in townships close to cities and even in squatter camps. They indicated the necessity for further research to understand this situation and to develop interventions where applicable. The current project forms part of the multidisciplinary FLAGH² Study (Kruger, 2001) in which the objective is to develop an intersectoral, interdisciplinary intervention programme to improve the nutritional, physical, and psychosocial status of farm workers.

Approximately 1,1 million workers and families were residing on commercial farms in South Africa in 1992 (Central Statistical Services, 1992). Despite an overall decline in this figure, it is probably still the largest single sector of employment and one of the three most hazardous major occupations. Both managers and farm employees are exposed to substantial risk of injury and illness in their daily tasks, but still represent the most under-served worker population. Injuries are only the tip of the iceberg as health hazards in the agricultural sector extend to the respiratory, cardiovascular, dermatological, psychological, neurological, urological, musculoskeletal and reproductive systems, as well as to communicable and malignant diseases (Schenker, 1998). Even in the USA research has pointed to the health status of farm workers as parallel to that of many non-industrialised communities (Bechtel, Davidhizar, & Spurlock, 2000). Efforts to address health and safety on farms are hindered by numerous factors, for example the perception by farm managers and workers that

¹ THUSA study: Transition and Health during Urbanization in South Africa. 'Thusa' is the Setswana word for 'help'.

² Farm Labour, Agriculture and General Health.

hazards are inevitable (London, Sanders, & Te Water Naudé, 1998) and that nothing can be done to prevent injury and illness in agricultural work.

Health and how it is perceived has changed dramatically over the years. The Galenic view of health was based on balance of the four bodily fluids - during the Middle Ages illness was perceived as punishment for sin. This was followed by a biomedical view which separates body from mind (Marks, Murray, Evans, & Willig, 2000). This view of health was constructed along the pathogenic paradigm which considers disease to be caused by physical, biochemical and microbiological agents (Strümpfer, 1989). However, according to Schlebusch (1989), many diseases are behaviour-related and psychological factors are imperative in the recovery process, which links to the view of Wicke|gren (1979) that health could be described as a reserve to be built up and drawn upon when ill, or a state of equilibrium between physical resources, mental well-being and social relations. The World Health Organization (WHO) described health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (Bennett & Murphy, 1997). Health is thus about wholeness, happiness and well-being (Beattie, Gott, Jones, & Sidell, 1993) on a physical, cultural, psychosocial, economic, and spiritual level (Marks *et al.*, 2000) to be presented on a continuum ranging from poor health to complete physical and mental wellness (Du Toit, 1986; Wissing, 2000). There is, subsequently, a move toward a paradigm that recognises the dynamic interaction between individuals and their environment. Health, therefore, can be described along biological, psychological and social dimensions. Engel (1977:135) proposed a biopsychosocial model (BPS) “that provides a blueprint for research, a framework for teaching and a design for action in the real world of health care”. The biopsychosocial

being should be looked at as a total entity; many parts contribute to his optimal state of well-being (Lambert & Lambert, 1979). Ryff and Singer (1998) conceptualised well-being as an issue of engagement in living, involving expression of a broad range of human potentialities: intellectual, social, emotional and physical.

Psychological well-being, as an important component of the biopsychosocial approach, presupposes a healthy life-style, which depends on an adequate balance among the following: Nutrition, drugs, exercise, self-care, work, leisure, social relations, and mental strategies (Schomer, Noakes, & Giese, 1984). Extensive research on and proper description of this concept exist: Antonovsky (1979) coined the term 'salutogenesis', which hails from the Greek word *salus* meaning health, and *genesis* meaning origin. He consequently described *sense of coherence* as the experience of an individual that his life is comprehensible, manageable and meaningful. Strümpfer (1989) described salutogenesis as an implication of empowerment and consequently proposed the more embracing construct fortigenesis, which means origins of strengths. Psychofortology is described by Wissing and Van Eeden (1997) as the science of psychological strengths, which provides for the study of the nature, manifestations, patterns and origins of psychological well-being, as well as the ways in which psychological well-being is enhanced and human capacity developed. Self-concept, self-responsibility, competence and realism are all important keys to wellness (Mullen, McDermott, Gold, & Belcastro, 1996). Life satisfaction is not an isolated attribute of people, but rather a characteristic with wide-ranging implications for a person's social interactions, activities, thoughts, self-esteem, typical methods of dealing with stress and evaluation of their health (Lewinsohn, Redner, & Seeley, 1991). The experience of stress, while necessarily reducing the sense of well-

being, does not inevitably contribute to more serious psychological or even physiological disorders (Cox, 1988). Positive attitudes such as happiness 'buffer' the impact of negative life events, but chronic dissatisfaction increases vulnerability to disease and even premature death (Strack, Argyle, & Schwarz, 1991). Cross-cultural research has highlighted the influential role of health beliefs in shaping responses to health messages and subsequent health behaviour. Results showed statistically significant differences between health beliefs of rural and urban patients and the importance of religious concepts in health beliefs (Schlebusch & Ruggieri, 1996).

This is a clear indication that cognitive factors are also an integral aspect of biopsychosocial health. The role that cognitive factors play in health has been researched extensively, and this includes the work of Pavlov (1927) on Classical Conditioning, Skinner (1953) on Operant Conditioning, Rotter (1954) on Locus of Control, Bandura (1977, 1986) on Social Cognition, Antonovsky (1979) on Sense of Coherence, Ajzen and Fishbein (1980) on Reasoned Action and Planned Behaviour, Lazarus and Folkman (1984) on Stress and Coping, Becker (1984) on the Health Belief Model, Prochaska and DiClemente (1984) and Prochaska, Narcoss, and DiClemente (1994) on the six Stages of Change, Giger and Davidhizar (1999) on Transcultural Assessment and Schwarzer (1992) on the Health Action Process.

Not only is health status mediated by cognitions, but it could also be seen as to be socially constructed (Hodgetts & Chamberlain, 2000); moreover, it seems to be the 'perceived' environment and not the 'objective' environment which affects human health behaviour and experiences (Marks *et al.*, 2000). Human thought is social in its origin, its function and its application (Geertz, 1975). What people believe about

health affects their attitude to 'healthful' behaviour; the lifestyle of an individual provides a framework for different behaviour patterns which will depend on his cognitive and emotional make-up and that of his surrounding social world (World Health Organisation, 1993). Social contexts such as low social and occupational status, have long been associated with increased risk of nearly all disease conditions, as well as shorter life expectancy (Fisher, & Reason, 1988). A link has been identified between ethnicity and health both in the USA and the UK (Bennett & Murphy, 1997). No social group exists without links to the environment and reference to its tradition and culture (WHO, 1993). Where, according to Silberbauer (1975), culture can be described as the way of life that a man learns from his parents, his community and the environment, also what he is taught concerning customs and religion of his people, mode of thinking, manners, etiquette, social patterns, language, arts, crafts and music. Culture may in fact be the frame of reference (Marks *et al.*, 2000). In a sense, culture rather than human nature determines man's motives and drives (Benedict, 1970; Bilmes & Boggs, 1979). Behaviour can only be understood by reference to its historical and cultural context (McGhee, 2001). Poor physical and mental health conditions may be carried over from generation to generation through entire populations or communities (James, 1985). Perceptions and beliefs and practices of populations need to be understood for effective intervention as these are instilled in early childhood already (Ndlovu & Roos, 1999). The individual develops a cognitive style that is encouraged in and adaptive to their cultural context (cf. Berry, 1979). Wellness might indeed mean different things in different cultural contexts (Wissing, 2000).

In the traditional African cultural setting, health and illness, much like life and death, are intertwined in a culture that in its traditional roots has a collective nature, whereas Western culture places the emphasis on individualism. These cultures differ in interaction on almost all levels of human action (Peltzer, 1995) and also hold a different perspective on issues such as cause and effect. Lambo (1970) was the curator of a therapeutic village in Nigeria during the nineteen-sixties and seventies. His experience indicated that even the concept and practice of medicine is bound up with the whole interpretation of life. Health is not the absence of disease, but a sign that a person is living in peace and harmony and keeps the laws of the gods and the tribe (Dederson, 1979).

The participants in this study are African in culture, some more westernized and some still traditional to varying degrees. In a traditional African community, members are community-based and driven and time is perceived as cyclical; religion (or more aptly, spiritualism) is a cultural aspect which must be understood as it has a fundamental influence on the thinking, the living and the motivation of the traditionally-minded African worker. The African worker does not only live in a physical world of people and machinery, but in the highly influential world of spirits. Traditional African religious concepts are not a mere jumble of superstitions; it constitutes a definite system of thought and logic, and therefore has a powerful and profound hold on the minds of the believers (Silberbauer, 1975; Swarts, 1997). They believe in a Supreme Being who can only be approached through a priestly person (witchdoctors). There are two fields of practice: a herbalist who diagnoses by throwing bones and prescribes medicine against evil spirits (and cures physical ailments such as 'snake in the stomach' and 'worm in the head'); and an evil worker

who uses black magic to put spells on innocent people and who inspires terror. From day to day man worships spirits that may have a harmful or helpful influence; at times they are a strong motivating force and at other times they take away all motivation and leave a man listless and might perhaps paralyse him into inaction through fear. Death comes through a harmful spirit and unless detected might harm the family (see Swarts, 1997). Man is partly a physical being so that at death the body is buried and the shadow stays around and gradually evaporates and disappears into the realm of the 'living dead' or ancestors - a very real and decisive controlling force. The funeral is thus a major event. The religious background of thousands of years has developed an exceptionally high level of 'capacity for faith' in the African. The religious emphasis placed on healing was also found in the USA, where Schoenberg (1997) conducted a study among rural African Americans. Segar (1997) conducted a study in the Ciskei on illness aetiology which confirms the work of Silberbauer (1975) and Peltzer (1995) on traditional religious perceptions. Concurrent findings were recorded in a study done by Swarts (1997) among Xhosa cancer patients, while Steen and Mazonde (1999) conducted a similar study in Botswana among TB patients - confirming the role traditional religion plays among their participants.

It is imperative for capacity-building, as well as empowerment of the farm workers, that a clear picture be obtained on their perceptions of health and illness, how it is construed and to what extent it relates to their health status. It is crucial to take cognisance of the impact that such a study can have on the psychosocial well-being of a notable sample of the labour force in South Africa. The following research questions result from this:

- *What are the perceptions of farm workers on health and illness?*
- *How are these perceptions construed within their socio-political context?*
- *In what way do these perceptions relate to their health status?*

METHOD

Design

A one-shot cross-sectional survey design was used, with triangulation of quantitative and qualitative data to ensure authentic insight in the lives of the participants (cf. Neumann, 1997).

Participants

An availability sample of 52 female and male farm workers, aged 18-60 years, was used. All participants are Setswana-speaking and work on two adjacent farms in the Potchefstroom District in the Northwest Province of South Africa. The farms produce maize, sunflowers and peanuts with limited sheep and cattle farming as well.

Measuring instruments

The following measuring instruments were used:

Self Report Questionnaire (SRQ) (Beusenbergh & Orley, 1994). The SRQ is a self-administered instrument with 20 items that questions participants about symptoms likely to be present in those with neurotic disorders. A high score indicates psychopathological potential or existence thereof. An internal consistency coefficient of the Portuguese version of the SRQ (using KR-20) was found to be 0.81 by Iacoponi and Mari (1989). Oosthuizen (2001) found a Cronbach Alpha Coefficient of 0.85, which correlates with the value of 0.823 found in this study.

General Health Questionnaire (GHQ) (Goldberg & Hillier, 1979). The GHQ is a self-administered screening questionnaire designed for use in consulting settings aimed at detecting those with a diagnosable psychiatric disorder (Goldberg, 1972). Two major classes of phenomena are distinguished: inability to carry out one's normal 'healthy' functions and the appearance of new phenomena of a distressing nature. The GHQ consists of 4 sub-scales: somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. Cronbach Alpha Values for the total score of a South African group was 0.90 (Van Eeden, 1996). Wissing *et al.* (1999) found Cronbach Alpha Values for the total score of 0.84; in this study a value of 0.679 was found.

Health Belief Questionnaire (HBQ) (Pillay, 1996). The HBQ, a 31-item self-report measure for assessing health beliefs of hospitalized patients, provides information on beliefs of nine identified factors along three dimensions:

- Etiology: external evil or ancestral influences, self-blame, medical reasons, physical weakness or body malfunction.
- Treatment: self-medication, medical treatment, use of prayer, holistic beliefs
- Prevention: self-care (or self-management).

Pillay and Schlebusch (1993) obtained an Alpha coefficient of 0.76 in a study of 892 black South Africans. In this study values of between 0.531 and 0.836 were found and two sub-scales, namely HBQ3 (medical etiology) and HBQ6 (medical treatment) were excluded on the basis of very low indices.

Multidimensional Health Locus of Control Scale (MHLOCS) (Wallston, Wallston & De Vellis, 1978). Measuring attributions of health control involving internal (i.e. patients themselves), external (important others, i.e. doctors) and external (chance factors, i.e. luck), the MHLOCS consists of 18 Likert-type self-report items totalled for the three attributions. Cronbach Alpha Coefficients ranged between 0.55 and 0.83, and high test-retest reliability was found (Wallston *et al.*, 1978). The Cronbach Alpha Coefficients for this study were 0.643 (MHLOCS1) and 0.644 (MHLOCS2), while the MHLOCS2 (external: important others) was omitted due to a very low index. MacLachlan, Ager and Brown (1996) reported, however, a failure of the cross-cultural validity of the MHLOCS.

Sense of Coherence Scale (SOC) (Antonovsky, 1987). The SOC is a self-report questionnaire consisting of 29 items measuring the extent to which an individual perceives his life context to be comprehensible (11 items), manageable (10 items) and meaningful (8 items). Since factor analysis indicated a single factor (Antonovsky, 1987) only a total score was used. Antonovsky (1993) reported Cronbach Alpha Coefficients for internal reliability between 0.78 and 0.93, and test-retest reliability between 0.56 and 0.97. Van Eeden (1996) confirmed its reliability for the South African context. A Cronbach Alpha Coefficient of 0.704 was found for this study.

Semi-structured, in-depth interviews were conducted as stipulated by Crabtree and Miller (1999). The motivation for the use of interviews is to triangulate the participants' subjective experiences and beliefs about health with the more structured, objective quantitative data. As health has been described as socially constructed it is important to get insight into how the participants perceive and construe health and

illness. The primary question asked to the participants was: “Tell us about your life here on the farm”. Secondary questions asked were: “ What about your health? What is your health like? What contributes to your health status?”. These were probing questions to clarify answers and to get a clear picture on the biopsychosocial health perceptions of the participants.

ANALYSIS OF DATA

Quantitative data were analysed by means of descriptive statistics (means, standard deviations), Cronbach Alpha Coefficients (reliability) and correlations (relation between perceptions and health status). The Statistical Consultation Service of the PU for CHE was consulted to do this. Qualitative data were analysed from a social constructivist perspective in as far as participants constructed their own social ‘maps’ to understand their perceptions on health (Terre-Blanche & Durrheim, 2001).

PROCEDURE AND ETHICAL ASPECTS

Farm managers in the Potchefstroom district were involved in discussions between Agri-Northwest and the Potchefstroom University for CHE on the possibility of establishing research opportunities. As a result, two farms were identified where informed consent had been obtained from the farm managers and farm workers. The ethical committee of the university approved the proposed study. Questionnaires were translated into Setswana after which trained field workers assisted participants to complete them. Sixteen participants were randomly assigned to be interviewed.

RESULTS

As indicated in Table 1, reliability indices for sub-scales varied from low to highly acceptable. Sub-scales HBQ3, HBQ6 and MHLOCS2 were excluded from further analysis because of poor reliability.

Table 1 – Descriptive statistics and Cronbach Alphas of the psychometric measures (n=52)

Scale	Variable	M	SD	α
SRQ	Psychopathology	7.346	4.506	0.823
HBQ 1	External influences	24.156	5.126	0.836
HBQ 2	Self-blame	11.865	2.526	0.531
HBQ 3	Medical etiology	13.608	1.986	0.356**
HBQ 4	Self-medication	12.852	2.247	0.617
HBQ 5	Physical weakness	12.865	2.483	0.560
HBQ 6	Medical treatment	9.567	1.740	0.343**
HBQ 7	Self-care	6.480	1.212	*
HBQ 8	Use of prayer	3.903	0.408	*
HBQ 9	Holistic belief	7.173	1.149	*
MHLOCS1	Internal locus of control	28.557	6.643	0.644
MHLOCS2	External locus: important others	28.346	5.040	0.079**
MHLOCS3	External locus: Chance	25.661	6.708	0.643
GHQ1	Somatic Symptoms	1.923	1.958	0.746
GHQ2	Anxiety and Insomnia	1.500	1.720	0.704
GHQ3	Social Dysfunction	1.230	1.391	0.593
GHQ4	Severe Depression	2.211	2.022	0.771
GHQT	Total	6.865	5.178	0.679
SOC	Sense of Coherence	113.481	21.835	0.704

Note - α Cronbach Alpha

* These measures consisted of only one or two items, therefore α could not be calculated

** These sub-scales are subsequently omitted because of their low reliability indices

The relatively low indices obtained by the study group for the HBQ might be attributed to its cultural contextualization for Zulu speakers primarily. Scores obtained on the SRQ-scale are indicative of a relatively high report of anxiety-related symptoms. Relatively high average scores on MHLOCS1 and MHLOCS3 indicate above-average internal locus of control, as well as external locus of control regarding chance or luck.

According to the HBQ, participants indicated an average belief in external influences, self-medication, physical weakness, medical treatment and self-care. The results also presented a strong belief in the use of prayer and 'holism', which indicates that the participants believe the medical model to be only partly effective as treatment; and a below average belief in self-blame. The very low scores on the GHQ are clear signs of poor general health. The relatively low scores on the SOC-scale indicate below average Sense of Coherence, meaning the extent to which they perceive their life context as comprehensible, manageable and meaningful.

In Table 2 a statistically significant correlation (*) is indicated between belief in external influences and poor general health and also between self-medication as an element of self-management and anxiety-related symptoms (SRQ).

Table 2 – Correlation between Health Belief and Self-report, General Health and Sense of Coherence

Scale	Variable	SRQ	GHQ1	GHQ2	GHQ3	GHQ4	GHQT	SOC
HBQ1	External influences	0.497	0.365	0.385	0.295	0.465	0.527*	- 0.402
HBQ2	Self-blame	0.378	0.377	0.333	0.184	0.244	0.398	- 0.280
HBQ4	Self-medication	0.941*	0.017	- 0.048	- 0.20	0.026	- 0.053	- 0.040
HBQ5	Physical weakness	0.435	0.202	0.244	0.223	0.282	0.327	- 0.206
HBQ7	Self-care	0.313	0.156	0.258	0.119	0.156	0.238	- 0.077
HBQ8	Use of prayer	0.093	0.162	0.209	- 0.271	0.073	0.086	- 0.108
HBQ9	Holistic belief	0.257	0.285	0.133	0.305	0.169	0.300	- 0.175

Note - SRQ = Self Report Scale; SOC = Sense of Coherence Scale; GHQ1 = General health (Somatic Symptoms); GHQ2 = General Health (Anxiety and Insomnia); GHQ3 = General Health (Social Dysfunction); GHQ4 = General Health (Severe Depression); GHQT = General Health (Total); HBQ = Health Belief Scale.

Results in Table 3 indicate no statistically significant correlation between health locus of control and health status (neither on GHQ, or on SRQ).

Table 3 –Correlation between Multiple Health Locus of Control and Self-Report, General Health and Sense of Coherence

Scale	Variable	SRQ	GHQ1	GHQ2	GHQ3	GHQ4	GHQT	SOC
MHLOCS 1	Internal locus of control	- 0.048	0.119	0.179	0.047	0.021	0.126	- 0.189
MHLOC S3	External locus: Chance	0.162	0.363	0.416	0.073	0.213	0.378	- 0.233

Note - MHLOCS = Multidimensional Health Locus of Control Scale; SRQ = Self Report Scale; GHQ1 = General health (Somatic Symptoms); GHQ2 = General Health (Anxiety and Insomnia); GHQ3 = General Health (Social Dysfunction); GHQ4 = General Health (Severe Depression); GHQT = General Health (Total)

From results tabulated in Table 4, it is evident that a negative correlation exists between sense of coherence and severe depression as well as poor general health in total.

Table 4- Correlation between Sense of Coherence and Self-Report and General Health

	SRQ	GHQ1	GHQ2	GHQ3	GHQ4	GHQT
SOC	- 0.487	- 0.344	- 0.435	- 0.213	- 0.601*	- 0.567*

Note - SOC = Sense of Coherence Scale; SRQ = Self Report Scale; GHQ1 = General health (Somatic Symptoms); GHQ2 = General Health (Anxiety and Insomnia); GHQ3 = General Health (Social Dysfunction); GHQ4 = General Health (Severe Depression); GHQT = General Health (Total)

Table 5 is a social construction based on the views reflected by the participants. The table reflects six social constructs identified during the qualitative phase of the study. Each construct expands along a number of factors reflecting specifically on that construct. Salaries are, for instance, discussed as a factor in the treatment of participants where it is a health risk not to have the available finances for treatment.

It also poses a survival threat in general and was communicated as an essential need for improvement of life on the farm. Life on the farm directly reflects upon the manager(s) and the dangers mentioned implicate the manager.

Table 5— Summary of themes identified from interviews

Constructs	Factors	Applicable quotes by some of the participants
Physiology	<i>physical symptoms;</i> <i>alcohol abuse;</i> <i>importance of exercise</i>	“miskien dis die maag, miskien dis die wonde”; “TB or wat...” “Ek het borssiekte, rug”; “raak baie moeg ... eetlus nie dieselfde” “drink maak siek en maer” “suip”; “..drink vir lekker, ander het ‘n probleem”; “niks anders te doen..” “ As jy nie oefen nie, jy word siek.”
Treatment	<i>need for medical treatment;</i> <i>shortage of money</i>	“Ek moet eers by die dokter hoor”; “Dis bietjie te swaar want die dokter hy soek ook R90 en ek moet uithaal vir transport”
Religion	<i>GOD and prayer;</i> <i>going to church</i>	“ ..dis die HERE wat ek ken” “...ek like kerk...ek sing en die wind kom reg..”
Survival	<i>low salaries</i>	“ as ek nie werk nie, kan ek nie lewe nie” “ Die outyd se geld was die lewe se geld. Kyk vandag se sente hulle koop nie.”

Life on the farm with the manager	<i>Relationships;</i> <i>Dangers;</i> <i>work stress</i>	“die baas is soos ‘n pa en die miesies soos ‘n ma”; “ die ander baas...hy’s baie laf. En hy’s skelm...as hy praat, hy shout jou.” “ daar’s baie verdeeldheid hier.” “...puisie wat uitkom by my hande as ek met die gif werk”; “Soos hier dit werk my asem...ons werk by die mielies, dit reën, dan kry ons nat dan raak ek siek” “ Die water ingaan in, die mure val in.” “ ..daar is nie dam wat loop...jy drink daai water saam met die kinders, dis net vuil water” “daar is probleme, maar ek werk maar” “dink wat goed en reg is en vergeet die verkeerde” “ jy moet jou vrede self onderhou”
Needs	<i>Increased salary</i> <i>Improved relations</i> <i>Community hall and committee</i> <i>Development</i> <i>Sports facilities</i>	“ ..as die baas bietjie hoër gaan, want die werk wat ons hier werk is te swaar” “...dit sal bietjie beter gaan...as die een iets maak, die ander help hom, met die tyd saam, dan is dit makliker.” “ As ons die hall gehad het vir die kerk. En die skool ook.” “in die ou tyd ons het altyd komoeti gehad.” “ Julle kan nie die nagskole...kom doen op die plaas?” “ ...die kamer waar hulle met die masjiene werk..” “ ..brei, en leer om kos te maak..” “ Om die tuin te maak dat ons die groente kan plant, dat ons kan die kos het.” “..as die kinders by die sports kan speel. Dis nodig.” “...dat ons bietjie kan kry om te oefen hier by die stat...”

DISCUSSION

In a quest to ascertain the perceptions of health and illness of a group of farm workers, how these perceptions were construed and the consequent link with their health status, the following emerged:

Objective 1: What are the perceptions of farm workers on health and illness?

A variety of apparently *physical symptoms* were mentioned during the interviews. Headaches and stomach aches were mentioned a number of times, as well as loss of energy, tiredness and lack of motivation. Does this link with the traditional African religious belief of spirits at work, causing physical ailments such as ‘snake in the stomach’ and ‘worm in the head’, or is it merely a reaction to work stress? The participants emphasized *physical aspects* of health much more than the psychosocial aspects (except for interpersonal relationships and religious exercise). They therefore perceive themselves as having high levels of physical symptoms (as indicated by high levels of anxiety symptoms reported in the SRQ and low scores on the GHQ) and consequently low psychological well-being which in fact confirms previous research by Pillay (1996). From the qualitative data follows a corresponding social construction indicative of the views of the farm workers. Women were described as more symptomatic than the men, the reason being that they do not take precautions and do not adhere to prescribed methods of taking care of themselves. This is reflected in an average belief in self-medication as treatment and self-care as prevention of illness and could be attributed to their efforts to reach medical facilities as well as their dependence on the farm manager for transport (be that by car or in financing the trip). Beliefs on self-medication and self-care are stronger, however, than those of urban and rural Sothos in research done by Botha, Du Plessis, Van

Rooyen, and Wissing (2002). It is still, however, non-committal in essence and may very well be indicative of a sample at risk in terms of *self-management*, as the participants do not quite comprehend the role an individual needs to play in health and health behaviour. The participants perceive themselves as *not completely in control of their health*, as an above-average score on *external locus of control (chance)* shows as well as an average score on self-blame (HBQ). Low scores on the SOC concur with those of the THUSA-study done on other farms in the same province (Vorster *et al.*, 2000). The scores on internal locus of control are, however, above average. An average belief in *external influences* was surprising. The perception of workers that *dangers* encountered on the farm (working with pesticides for example), leads to physical symptoms of possible ill-health concurs with a study done by Robins, Salie and Gwagwa (1994) among sugar-cane farm workers in Kwazulu-Natal. Other dangers mentioned included 'vrot' meat sold to the workers by the farmer and soiled water. The participants thus perceive health as the absence of symptoms, and shows absence of a clear understanding of healthful behaviour.

Objective 2: How are these perceptions construed within their socio-political context?

The quarterly visits by the mobile clinic do not seem to address the *need for medical treatment* efficiently. Participants still need to visit the doctor on occasion for which they have to pay themselves in most instances as well as for transport to reach the consulting rooms - this adds to their already invidious financial burden. Research done in the Ciskei (South Africa) at Rabula village reported participants identifying three outstanding themes implicated as important in health care: problems with water; *shortage of money*; lack of public transport (Segar, 1997). A pay phone is available to the farm workers and in case of emergencies an ambulance (which apparently takes

some time to respond) is called to transport the patient to a local hospital where it is possible to receive medical care and pay the account at a later stage. Participants construct their health status as depending on availability of medical care (mobile clinic or regular subsidised visits to the doctor) and thus beyond their control. Their corresponding illness or physical symptoms are perceived as caused by (among others) their inability to reach the medical facilities to reverse symptoms of illness into wellness.

More than half of the participants quoted *God and prayer* to be the reason why they are healthy, have recovered or are surviving despite the odds, which correlates with a strong belief in prayer expressed in the HBQ. Although the church does not provide them with financial support, they still experience *going to church* as relieving stress and assisting in lightening the heavy load of life on the farm. As one participant put it: "...ek like kerk...ek sing en die wind kom reg..". This concurs with findings by Edwards and Besseling (2001) on the relationship between, among others, a sense of coherence and religious involvement in a small rural community affected by industrial conflict; as well as research done by Schoenberg (1997) among African-American elderly people with hypertension. Church seems to be a social gathering with excellent social support value and to be able to cast your burdens on 'someone' else does seem to contribute to psychological well-being which in turn has a direct impact on biological welfare. Participants in this study campaigned for a community hall as a step to improve their lives on the farm. It has been suggested before that people in crisis situations become more supportive and altruistic and consequently cohesion between family and even in the community is enhanced (Olwagen, 1989). This also confirms the postulation by Hodgetts and Chamberlain (2000) that the meaning of

being healthy or ill is inherently intertwined within broader social meanings systems. A strong belief in holism (HBQ) indicates that the participants construct their perceptions on health and illness from a range of sources and that the medical model is only partly effective as a treatment - feeling good, free and comfortable are all criteria for being healthy. This concurs with a study done by Pillay on designing a help-seeking model (1996). Peltzer (2000) found beliefs to be more important predictors of healthful behaviour, than risk awareness. Health perceptions among the participants are thus constructed along a variety of dimensions: accessible facilities, GOD and prayer, feeling good and free - all of which correspond with their strong belief in holism. What is of concern in this study is the poor health literacy expressed during the interviews. While the participants have access to a television set, no library facilities exist and no participant mentioned access to magazines (purchasing is definitely out of the question, given the strong voice they sounded on low income). This could very well be an indicative factor in their healthful behaviour, or lack thereof.

Objective 3: In what way do these perceptions relate to their health status?

The health status of the farm workers is clearly communicated by the low scores on all four sub-scales of the GHQ. This represents the perceptions of the participants on their own health, therefore an indication of the relation between their perception of their own health and its status. A statistically significant correlation is indicated between the belief in external influences and poor general health. The reason for the poor general health may very well be the belief in and application of prescriptions of the external factors such as witchdoctors and evil spirits and the corresponding absence of medical attributions. A significant correlation between self-medication as

an element of self-management and anxiety-related symptoms (SRQ) is a twist in the results that cannot be explained. A possible explanation might be found in the participants' inability or reluctance (due to lack of information) to take responsibility for their own health through healthful behaviour. This is reflected in average scores on self-medication as treatment and self-care as prevention. No correlation was found between MHLOCS and health status. This might be seen as confirmation of research done by Norman *et al.* (1998) which considered MHLOCS to be a weak predictor of health behaviour. The negative correlation that SOC shows with depression and general health confirms research done by Wissing *et al.* (1999).

A cause frequently mentioned for incidence of symptoms is **alcohol** use (or in some cases **abuse**). Harsh comments were made (“suip”) and apologies were offered (“niks anders te doen.” ; “..drink vir lekker, ander het ‘n probleem”). This concurs with research done in the USA where it was revealed that 16 million workers perform their daily tasks under the influence of alcohol (Kurzman & Akabas, 1993). The biological impact of the alcohol abuse was mentioned by a number of participants: “drink maak siek en maer”. Many participants mentioned the **importance of exercise** (organized or informal) and that the lack thereof may be a contributing factor to the abuse of alcohol as relaxation, sports facilities and friendly competition on the field could curb the abuse and even mild use of alcohol among this group. Social visits to friends to drink might then well change to communal social activities. This, however, is a higher order need, especially in a group where survival is a high priority.

More than 75% of participants mentioned lack of funds and **low salaries** as a vital role-player in sustaining health - physically and consequently psychologically. The

lack of funds hinders purchase of healthy food, including fresh meat, which the workers claim they have no access to and have to settle for the ‘vrot’ meat sold to them by one of the farmers. It has a social impact and a consequent psychological drawback, as one participant commented: “as ek nie werk nie, kan ek nie lewe nie”; others said: “ek kry hier kos”, and “dis al wat ek ken”. One of the ladies admitted to keeping a front for the others for fear of rejection and ridicule. Studies in the USA showed restriction in social development of groups who have been denied access to opportunities and economic participation (Almquist, 1979). It confirms Diener and Diener’s (1995) finding that poorer people base their life satisfaction more heavily on financial satisfaction, as well as the findings of Hodgetts and Chamberlain (2000), that lower SES participants refer to illness as a social problem.

The *relationship* with the farm owner seems to be of utmost importance. Comments on the owners varied from ‘mother and father’ to suspicion and disgust. This confirms research done by Shapiro *et al.* (2001), that social support is an important aspect of life. When asked what could be done to improve their lives on the farm, workers mentioned that co-operation within the small community and a committee to address and communicate their communal issues is a priority. The farm workers fear revealing any symptoms of illness for fear of retrenchment and would rather deal with illness than lose their jobs. Kurzman and Akabas (1993:3) talk about ‘downsizing angst’. This has a negative impact on the physical as well as psychological well-being as time needed to recover is overshadowed by fear and workers often return to duties before complete recovery. This concurs with a study done by Saunders (1993) among farm workers in the flower industry in Zimbabwe. One participant in Zimbabwe expressed himself as follows: “Complainers get fired”. Participants in a study done by Hodgetts

and Chamberlain (2000:332) considered health in functional terms as ‘the ability to keep going’, even in jobs that can cause illness - this is an indication that the harsh necessities in life dictate perceptions of health.

Role ambiguity and role conflict, too little responsibility or too much, lack of managerial support, no part in decision-making, poor interpersonal relations and personality conflict are all detrimental to the psychological well-being of workers. Employees’ self-belief wanes if there is no opportunity for growth. Maslow’s hierarchy of needs can be applied here: if basic needs are not met or only partially met, an individual experiences high levels of frustration and helplessness; self-actualization through production is the ultimate achievement of a fulfilled person. Albert Camus said: “Without work, all life goes rotten. When work is meaningless, life withers and dies” (Kurzman, & Akabas 1993: 316). *Work stress* has become a key issue because of its impact on the physical and psychological well-being of workers and on productivity (Kurzman & Akabas, 1993; Winnubt, Buunk, & Marcelissen, 1988). Apathy and feelings of powerlessness are two common reactions to stress (Kurzman & Akabas, 1993). When asked what could be done to improve their lives on the farm, workers mentioned a couple of developmental issues: night school to improve their level of education, life skills training and community development (sewing, vegetable gardens). The role an individual plays in an organization can thus be detrimental (directly or indirectly) to his health and well-being (Van Graan, 1989). The relation between the perceptions of the participants and their health status can be summarised as highly dependable on external factors. The farm manager, for example, is indicated (directly or indirectly) as the culprit in terms of bad meat sold to

the participants, lack of alternatives to alcohol, responsible for the dangers, low salaries, bad relationships among each other and work stress.

CONCLUSION

In conclusion, it was found that farm workers' biopsychosocial health perceptions are characterized by physical vulnerability, low sense of coherence, above-average external locus of control and non-committal health beliefs. They tend to focus more on the physical aspects of biopsychosocial health than the psychosocial elements. A factor of concern is their focus on factors that restrict health rather than on factors that contribute to or enhance health. This shows an absence of a clear understanding of healthful behaviour. The participants construct health perceptions along a variety of dimensions: accessible facilities, GOD and prayer, feeling good and free, all of which correspond with their strong belief in holism. They point to the farm manager for a number of issues and thereby admit to not being in control of their own health. Poverty and unfulfilled needs for competence, autonomy and relatedness (Ryan & Deci, 2000) are possible important factors. Where health beliefs are incongruent with the realities of health and illness, there is no possibility of an informed choice about healthful behaviour. Food, health beliefs and health maintenance practices are shaped by socio-cultural factors and the environment (Charlton & Ferreira, 1997); it is a central feature thereof (Booyens, Cloete, & Venter, 1998). An alternative approach to health ailments is self-empowerment through knowledge and skills training. People need to be informed of their ability and given skills in self-treatment, which will lower dependency on medical services and increase self-reliance (Westaway, Wolmarans & Wessie, 1994).

It is recommended that more extensive research on this topic be done, investigating all related variables, especially the relationship between employer and employee, land-ownership issues and health literacy, controlling the research for gender, age and educational training. Intervention programmes based on these findings need to be implemented.

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