Health maintenance and low socio-economic status: A family perspective

Authors:
Claudette D. Ncho[1]
Susan C.D. Wright[1]

Affiliations:
[1]Adelaide Tambo School of Nursing Science, Tshwane University of Technology, South Africa

Correspondence to:
Susan Wright

Email:
wrightscd@tut.ac.za

Postal address:
Private Bag X680, Pretoria West 0001, South Africa

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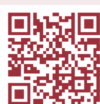
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The socio-economic status of people has a profound influence on health, as higher rates of morbidity and mortality are reported for individuals with lower socio-economic status. Due to the increased burden of disease, research exploring how families maintain their health in a low socio-economic situation is an urgent priority. The objective of the study was to gain an understanding of the reality families are confronted with in terms of their health due to their socio-economic status. The study was contextual, qualitative and exploratory using purposive sampling methods. The sample size was governed by data saturation and realised as 17 families (n = 17). The participants for the study were families residing in Soshanguve Extension 12 and 13, South Africa. The data collection method was self-report using a semi-structured interview. Content analysis was done according to Tesch's approach using open coding. Five themes based on the theoretical basis of the study, including age, sex and genetic constitution, individual lifestyle factors, social and community networks, living and working conditions and general socio-economic status were used. Maintaining the health of people living in a physically and psychosocially disadvantaged position requires a different approach from registered professional nurses. No community-specific intervention can be planned and implemented to reduce the burden of communicable and non-communicable disease in the community without evidence based on a family perspective.

Introduction

A person's health has a pervasive influence on a person's life. Health is a central pillar in a person's life but it is also influenced by all aspects of that person's life. One pivotal aspect in this reciprocal relationship is the person's socio-economic status. Grim (2003:1) writes that the higher people's educational level, the higher their health status, or viewed from the other perspective, the higher people's health status, the greater their potential to achieve a good education and become successful. A higher educational level results in higher income levels, which in turn improves health status. Botha (2010:143) supports this argument in writing that lower education is associated with a higher prevalence of household poverty. The components included in the concept socio-economic status are poverty, income, education, occupation, environmental factors, working conditions and socio-cultural factors. Despite rapid economic growth, many people still live in absolute poverty (Rout 2006:135).

The financial situation of the household in which children grow up is an important determinant of their educational level and health status as they approach adulthood. If negatively influenced, individuals have a lower standard of living and health in adulthood. Education is perhaps the most basic component of socio-economic status since it shapes future occupational opportunities and earning potential (Ross & Wu 1995:719).

Quality of and accessibility to housing are important determinants of health status (Krieger & Higgins 2002:758). Poor housing conditions such as lack of safe drinking water and overcrowding have been associated with increased risk of morbidity from pneumonia, diarrhoea, chronic illness, injuries, poor nutrition and mental disorders (Mathee 2011:S37).

Stress in the workplace increases the risk of disease. People who have more control over their work have better health. Having a job is not only beneficial to health but the social organisation of work, management styles and social relationships in the workplace play important roles in attaining good health. In addition, insecure re-employment and unemployment are both associated with increases in minor psychiatric morbidity and being permanently out of paid work is associated with longstanding illness (Ferrie 2004:6).

Problem statement

The socio-economic characteristics of the community in which a person lives may affect a person's level of education and income; equally, a person's socio-economic status influences the

type of neighbourhood in which the person is able to live or move into. Soshanguve Extension 12 and 13 is a developing informal settlement in Tshwane, Gauteng Province. These communities are characterised by high unemployment (51.0%), high school dropout rates and a large proportion of single, female-headed households (34.9%). In addition, a third of the community (34.3%) has an income of less than R400 per month (Maree & Wright 2008). According to the General Household Survey 2011 (Statistics South Africa 2012), 20.4% of the population were living in informal dwellings and 28.9% were depended on a social grant for income.

Statistical reports from Statistics South Africa are aggregated using predefined independent variables. Such reports, though valuable, do not describe what is occurring on a family unit level. No literature is available regarding a household's management of their income in terms of their health-related needs, and the decision making processes that take place should a family member need health care. It is also not known which obstacles households have to contend with to maintain their health, from their own perspective.

Therefore the research problem was a lack of understanding regarding the realities families living in Soshanguve Extension 12 and 13 are confronted with to maintain their health due to their low socio-economic status.

Purpose and objective of the study

The purpose of the study was to gain an understanding of the reality families are confronted with in maintaining their health due to their socio-economic status and specific socio-economic determinants. The objectives of the study are to explore the decisions made to use income for health-related expenses, to explore the obstacles faced by households in maintaining their health and to analyse the influence of a low socio-economic status on the health status of the households living in Soshanguve Extension 12 and 13.

Theoretical framework of the study

The study is based on the Main Determinants of Health Model by Dahlgren and Whitehead (1991). They identified a range of factors that influence the health of individuals. The model consists of five layers, including age, sex and genetic constitution, individual lifestyle factors, social and community networks, living and working conditions and general socio-economic status (see Figure 1).

Definition of concepts

- *Family. A* family is an open and developing system of interacting personalities with the structure and process enacted in relationships amongst the individual members, regulated by resources and stressors and existing within the larger community (Cooley 2000:239–240).
- *Health maintenance.* Health maintenance refers to personal activities intended to enhance health or prevent disease and disability. These include screening procedure, risk assessment, early intervention and prevention (Arcury, Quandt & Bell 2001:1542).
- *Socio-economic status*. Socio-economic status is an economic and sociological combined total measure of a person's work experience and of an individual's or family's economic and social position relative to others based on income, education and occupation (National Center for Educational Statistics 2008).

Significance of the study

The socio-economic status of people has a profound influence on their health, as higher rates of morbidity and mortality are reported for individuals with lower socio-economic status. Registered nurses need insight in how families maintain their health as the members of these families become their patients and once discharged return to the same situation. Without an understanding of the patient's home situation, discharge information and health education given may not be suitable for the patient.

Research methods and design

Design

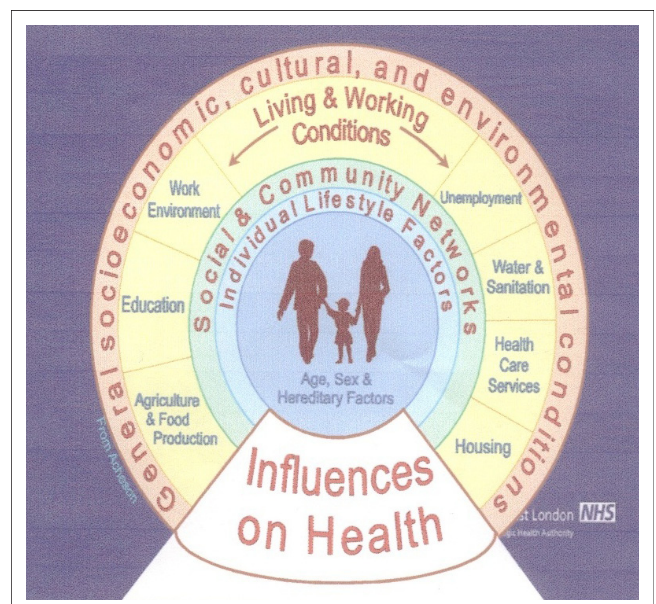
A qualitative exploratory design was used for this study.

Population and sampling

The target population was residents of Soshanguve Extension 12 and 13, a developing informal settlement in Tshwane, Gauteng Province. A purposive sampling method was used. The inclusion criteria specified families living in an informal structure in Soshanguve Extension 12 and 13 and willingness of the family to participate in the study. Seventeen family interviews were conducted and saturation was achieved at the 12th interview, the sample realised as 17 (n = 17).

Data collection methods

Data was collected by means of self-report using a semi-structured interview (Leedy & Ormrod 2005:159). The



Source: Dahlgren & Whitehead (1991).

FIGURE 1: The Main Determinants of Health Model.

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study was introduced to the community leaders in order to gain access to the community. To ensure understanding, a Setswana speaking fieldworker acted as interpreter. An interview schedule was used to ensure structural consistency in all the semi-structured interviews. The interview schedule contained two sections. Section A collected demographic information and Section B contained the interview themes based on the five layers of the Main Determinants of Health Model (Dahlgren & Whitehead 1991). The themes were decision-making in relation to health; expenditure of income to maintain health; the socio-economic status of the family members and their ability to maintain their health; income and nutrition; income and use of health services and transport issues. The interviews were audio-recorded with permission from the participants.

The interviews were conducted in the evenings and over the weekend to ensure that the senior person in the household was available for the interview. To ensure the richness of the data, the interviews were held in the privacy of the participant's own home and enough time was allowed to explore the participant's experience fully. The data were collected in 2010.

A pilot study was conducted to investigate the feasibility of the proposed study and to detect possible flaws in the data collection instrument, the process of data collection as well as the data analysis approach that was chosen (Brink 2006:166). The population for the pilot study was families from the same setting as the main study. The outcome of the pilot study was positive; no changes were made to the instruments or processes.

Data analysis

Content analysis was done using open coding as well as a template analysis style (Polit & Beck 2008:508). A template analysis style allows the researcher to develop a template or analysis guide to which the narrative data are applied. The basis of the template for the study was the five layers of the Main Determinants of Health Model (Figure 1). The themes included age, sex and genetic constitution, individual lifestyle factors, social and community networks, living and working conditions and general socio-economic status, cultural and environment conditions. The narratives of each theme, however, were analysed with open coding using the approach proposed by Tesch (Creswell 2003:192). This involved breaking down the narrative data into smaller units, coding and naming the units according to the content they represent. The coded material was grouped based on shared concepts and meaning. The themes were then categorised and described, supported with verbatim quotes from the participants.

Ethics considerations

The Research Ethics Committee of Tshwane University of Technology approved the proposal (reference number: 2008/11/006). Participants were requested to give written consent for participation and for the interviews to be audio-recorded. The principles of anonymity and confidentiality, beneficence and scientific honesty were followed.

Trustworthiness

Several measures were taken to ensure the trustworthiness of the findings (Babbie & Mouton 2002:276). The researcher was known to participants and a trusting relationship developed with time. Interviews were done in the language with which the participants were comfortable. Referential adequacy was achieved as more data were collected than were necessary to ensure saturation of the data. Using the interview schedule ensured structural coherence through the 17 interviews. A purposive sample was used with stipulated inclusion criteria to identify possible participants. An audit trail was developed. Member checking was done with the participants before the final transcription was used for data analysis.

Raw data were coded, audited and stored to permit checking of the findings against the raw data. The data analysis strategy used included Tesch's approach as well as a template analysis style.

Discussion of results

Demographic profile of the participants

In the sample, there were only 4 male-headed households. The range of the age of the household heads was 25–60 years with the mean 36 years. In terms of the number of people in the household, 10 families had 5 members and 5 families had between 6 and 11 members. Six of the 17 household heads were married whilst 10 were single. Eight household heads had a schooling level of Grade 7 or less. The majority (10 of 17) of the household heads was unemployed. In terms of sanitation, more than half of the participants (11 of 17) used a pit latrine and 12 had a water supply in the yard. Most families (13 of 17) used taxis for transport.

Findings

The findings are described in terms of the thematic themes presented in Table 1, along with the categories generated from the data.

Theme 1: Age, sex and genetic constitution

The social exclusion of single women in a predominantly married or co-habiting society has the potential to cause mental ill-health. The female participants narrated many negative experiences as a result of being single:

> 'Well as a single woman, sometimes I think that my neighbours might be talking about that. Sometimes when people are talking I will hear them saying that I could be taking their husband because they see you alone. Sometimes they do talk but not facing me straight. When I hear them talking about me like that I feel upset; sometimes I have headaches.' (P1, woman, 39 years)

Friendship, good social relations and strong supportive networks improve health at home, at work and in the

TABLE 1: Thematic themes and categories generated from the study.

Themes	Categories
Age, sex and genetic constitution	• Social exclusion of single women
Individual lifestyle factors	• Decision to take a family member to the clinic • Decision to use alternative or over-the-counter medicines • Insufficient emotional support from the father • Food security
Social and community networks	• Positive cooperation • Mutual external support • Using verbal and non-verbal communication to determine when a child is ill • Good interpersonal communication in family and community
Living and working conditions	• Job-related stress • Occupational factors • Low educational levels causing low health literacy • Poverty • Psychological distress due to poverty • Poor housing
General socio-economic status, cultural and environmental conditions	• Unsafe environmental conditions • Positive attitude of registered professional nurses • Experiences of service delivery

community (Wilkinson & Marmot 2003:22). Social support provides people the emotional and practical resources they need. If adequate resources and coping processes are not available, breakdowns in health can occur (Loveland-Cherry 2000:511).

Theme 2: Individual lifestyle factors

Deciding to consult a healthcare facility is important in the process of maintaining good health. The majority of the family heads made the decision to obtain health care, whether traditional or biomedical, when a family member was sick. The decision was always influenced by the cost involved. P2 (woman, 34 years) reported that though she would take her children to the clinic or hospital, she would first find out the cost of the consultation:

> 'I will take her to the clinic. I will know how much the doctor will cost before I take the child to the doctor. I would prefer to take the person to the doctor but if I can't afford it then I will take him to the clinic. The first thing that comes to your mind is how much money.' (P2, woman, 34 years)

To understand the process of decision making, it is always important to understand how people make decisions and the factors that influence their decisions. The participant's (P2) decision is in contrast with literature because the assessment of the cost as well as the obstacles to help-seeking, for example the perception that symptoms are untreatable and poor knowledge of treatment options, may prevent persons to seek health care (Srinivasan 2009).

Some participants, however, do not access biomedical health services and depend on traditional or over the counter medicines. P3 (woman, 37 years) always uses traditional medicine and accesses health services only if the traditional remedy fails:

> 'Yah, I take traditional medicine and I even give my children. At times we prepare some leaves to prevent them from disease like malaria. We cook some things and give it to them. Now after taking that and if the sickness still comes, the next thing is for us to take him to the hospital.' (P3, woman, 37 years)

Some of the male participants explained that though they were living with their families they did not support their family emotionally due to various circumstances. P4 (male, 44 years) seldom spends time with his wife and children due to his community work:

> 'I don't have time for myself. Yes, most of the time, not even for my family, I don't have time for them. My only time is when it is late but even then people will knock on the door.' (P4, male, 44 years)

Slow growth and poor emotional support leads to lifetime risk of poor physical health and reduced physical, cognitive and emotional functioning in adulthood (Wilkinson & Marmot 2003:14). Insecure emotional attachment in childhood and poor stimulation can lead to reduced readiness for school, low educational attainment, problem behaviour and the risk of social marginalisation in adulthood.

In terms of food security, the households had insufficient money to ensure a balanced diet. Eating a single food, for example maize meal porridge (*pap*), will result in malnutrition and subsequently lead to a reduction of the body's defence mechanisms. P5 (woman, 29 years) described her family's menu as follows:

> 'We just eat the same. We eat *pap* in the morning and afternoon pap again and in the evening *pap*. We just eat *pap*. No [*scream*], it's not enough because we don't eat bread, you see? We don't eat bread sometimes. We just drink tea like that, just black tea and sugar.' (P5, woman, 29 years)

> 'Eh in the morning we eat *pap* and … every day we eat *pap*, we don't eat vegetables all the times just sometimes and for fruits we don't eat it all.' (P6, woman, 60 years)

Limited access to good affordable food has a negative effect on the health of individuals (Dahlgren & Whitehead 1991). Personal behaviour and lifestyle factors, for example poor eating habits or lack of exercise, are detrimental to good health. Iron deficiency and anaemia are common problems amongst children in rural communities in South Africa (Kloka 2003).

Theme 3: Social and community networks

A family's social network, as an area in the family's psychological environment, influences health. Families need to cooperate well with each other to maintain health. Poor close relationship may have an adverse effect on health. Many of the participants gave evidence of a high level of cooperation within their families. The participants explained that there is no specific role designated to a particular household member. P6 (woman, 60 years) son's explained how he normally buys food for the house and assists in doing other household chores:

> 'No, washing I do myself, sometimes I cook, sometimes my mother do. Yeah, if I get money I buy food, everything at home.' (P6, woman, 60 years)

Many of the participants seek support from friends, relatives or neighbours in times of adversity. Some explained how they seek help from their employer or family member to maintain health:

> 'When there is not enough money, my husband usually asks money from his employer so that we can take the child to the hospital. [*Laugh*] If the employer doesn't give us money, we will ask from our neighbours if they have.' (P7, woman, 25 years)

Family relationships that are close, cohesive and supportive of individual members contribute to individual health and to the health of the family as a whole (Clark 2008:328). People who receive less social and emotional support from others are more likely to experience less well-being, more depression and higher levels of disability from chronic diseases (Wilkinson & Marmot 2003:22).

Communication patterns play an important role in psychological health. Many participants reported having good communication patterns with their family members. Both mothers and fathers heeded the child's verbal and non-verbal messages when they became ill:

> 'When the child is sick, I see them, because they can say that I am sick and they don't play and eat well.' (P5, woman, 29 years)

Both verbal and non-verbal communication should be considered in family assessment as well as the listening ability of family members (Clark 2008:328).

Good communication existed between the community members. For example, should the community require everybody to clean his or her compound, most of the participants would agree and follow the community rules. The participants proved to have a strong bond with other community members. Some commented that they had no problems with their neighbours:

> 'Yes I will go to the community when they need you; like when there is a need.' (P8, man, 50 years)

> 'We are fine because we live together. We have no problem with them.' (P9, woman, 37 years)

Belonging to a social network of communication and mutual obligation makes people feel cared for, loved, esteemed and valued which has a powerful protective effect on health (Loveland-Cherry 2000:195).

Theme 4: Living and working conditions

Employed participants experienced many forms of stress either directly or indirectly from their jobs. P5 (woman, 29 years) explained how she usually has some problems at her job and thinks of quitting; however, leaving her family without an income is not a viable alternative:

> 'Yeah we have many problems; we are just working you see. Yeah! [*loudly*] They affect me because sometimes I want to move but when I think there is nothing here, I just work you see. Ee … [*in anguish*], the cramps, I have the cramps and headaches sometimes, backaches, and standing for too long, hhuuhu! … my legs become so painful.' (P5, woman, 29 years)

Stress in the workplace increases the risk of disease (Ferrie 2004:6). People who have more control over their work have better health. The social organisation of work, management styles and social relationships in the workplace also play important roles in attaining good health. No matter the level of control, the higher the demands of a job, the greater the self-rating depression scale (Kitaoka-Higashiguchi *et al.* 2003:42). Also, receiving inadequate rewards for the effort put into work has been found to be associated with increased cardiovascular risk (Kivimaki *et al.* 2002:859).

Job related factors that influence family health may produce stress for the adult, which results in illness (Clark 2008:336). The adult might be exposed to hazards that he or she brings home to other family members and job-related problems and time constraints might interfere with family commitments.

Several participants had a low educational level. In addition, many of the participants' responses revealed their lack of knowledge regarding health-related matters. There were also some decisions made which could result in serious health problems. P10 (woman, 30 years) explained that even if the clinic referred her to a specialist, she would not go. Some narrated how they allow family members to sleep together even when one has a communicable disease such as chicken pox. One of the causal factors of such a decision is lack of resources to be able to choose a different option.

> 'Eh … eh when my son is sick, any sickness, I want to sleep with him on the same bed [*laughing*].' (P11, woman, 25 years)

> 'They sleep together because they don't have enough blankets.' (P12, woman, 41 years)

A number of participants had very limited knowledge regarding health outcomes. Low health literacy has been linked with health outcomes such as self-reported poor health, increased risk of hospital admission, diagnosis of disease at later stages, poor adherence to medication regimens and poorer disease knowledge and outcomes (Baker *et al.* 2002:1282).

Poverty is a major problem for the inhabitants of Soshanguve Extension 12 and 13 because of the high unemployment rate. P10 (woman, 30 years) explained that due to a lack of resources, she has no means to live a life that facilitates good health:

> 'Yeah it affords at least two weeks then I will run short of money. [*Silence*] Shew! I make some debts. Most of the times I only buy food and with that same amount of money, even food I cannot afford. I walk one hour. At times I don't have money for a taxi.' (P10, woman, 30 years)

Poverty is consistently and strongly related to poor health (Huang & Dunn 2005:26–27).

Unemployed people are often anxious because they are faced with many challenges of daily living; such anxiety does not only revolve around financial concerns but also around social concerns. P13 (woman, 31 years) shared that she is not working and anxiously depends on God:

> 'You don't know what to do, but what will you do because there is no work. I am not working, I can't say, just my hope is in God, I hope one day it will change to something.' (P13, woman, 31 years)

Insecurity arising from a threat to a particular job may be translated into employment insecurity if subsequent jobs prove hard to find, or chronic job insecurity if the

threat of job loss continues for a long time (Ferrie 1999:61). Unsatisfactory and insecure employment can be as harmful as unemployment. Merely having a job will not always protect physical and mental health; job quality is also important. Insecure re-employment and unemployment are both associated with increases in minor psychiatric morbidity and being permanently out of paid work is associated with long-standing illness (Ferrie *et al.* 2001:649).

Poor housing infrastructure has an adverse effect on health in many ways. Some aspects of importance are lack of enough space for all family members to live comfortably and unsafe neighbourhoods that prevent children from playing outside. In addition, the construction of the house may not be safe or allow for the necessary physical conditions to ensure a healthy environment (Maier 2006). Many participants acknowledged the fact that they live in shack houses and that there was insufficient space for all the family members to sleep independently. P14 (woman, 41 years) described how she still lives in a two-room shack house:

> 'Yes, because we are still living in the shack, they don't have bedrooms, separate bedrooms.' (P14, woman, 41 years)

Similarly, P3 (man, 37 years) explained how he manages in the night with his family:

> 'You can see I have one room that I am managing with my wife. Aah … me and my wife we sleep on the bed and we have eh this small Dunlop that the children use to sleep on the floor.' (P3, man, 37 years)

The housing conditions in some areas are deplorable, with many families living in run-down shacks. Many forms of deprivation are associated with poverty, including poor housing and lack of adequate medical care (Alaimo *et al.* 2001:781).

Theme 5: General socio-economic status, cultural and environmental conditions

Living in poor environmental conditions puts health at risk. Several participants live in very poor conditions. For example, some of the pit toilets are situated right next to the house and have no lids or doors to prevent flies and cockroaches from settling on food. Similarly, people cook and sell food right next to refuse disposals, which could increase the burden of communicable diseases. If the country's health policy does not favour areas of high deprivation, clean water and good sanitation will remain a problem.

Whilst some participants had positive experiences regarding the way the nurses or healthcare professionals interacted with them, others did not. P11 (woman, 25 years) commented:

> 'When we go here, they just test you friendly and then she gives you the treatment straight.' (P11, woman, 25 years)

According to literature, healthcare providers frequently cause patients to delay seeking healthcare due to their attitude (Moser *et al.* 2006:176). Some participants narrated their experiences of service delivery at clinics. P3 (man, 37 years) explained that there are not enough nursing personnel to attend to patients, which results in tension and a poor nurse and patient relationship:

> 'Yeah, the nurses are always in a haste to see all their people, you know. They are not many and can't really spend plenty time on you. I don't like that style. To me they have to discuss well with you before giving medicines.' (P3, man, 37 years)

The participant explained that more nurses should to be employed so that they can deliver holistic care to the community.

Limitations of the study

Firstly, the data collected are self-reported, and therefore subject to both recall and social desirability bias. Secondly, the total sample consisted of 4 male-headed households and 13 female-headed households. In the community, however, there are more male-headed households (56.9%) than female-headed households. The inclusion of more female-headed households than male-headed households could have biased the findings of the data. Thirdly, there was no measure to ensure that the fieldworker translated the words of the participants truthfully.

Recommendations

Recommendations are based on the findings and could enhance the health status of the people living in the community of Soshanguve Extension 12 and 13 if implemented.

- Registered professional nurses should teach parents regarding communicable diseases within the context of living in a one- or two-roomed house.
- Registered professional nurses should take a patient's family situation in consideration when assessing the patient for a health complaint. The consultation should include all the medication needed to treat the health problem.
- Registered professional nurses should focus on health promotion rather than just providing a curative service. Health promotion should be done in the community, with a strong focus on staying healthy.
- The lived experiences of a woman as the head of a household in a culture that values male-headed households must be explored further.

Conclusion

The study provides evidence regarding the decisions households have to contend with if a family member is sick and also the obstacles they face in maintaining their health in a rural settlement. It is clear from the findings that participants in the community of Soshanguve Extension 12 and 13 are faced with particular obstacles such as poverty, unemployment and psychological distress that prevent them from maintaining good health.

Maintaining the health of people living in a physically and psychosocially disadvantaged position requires a different approach from registered professional nurses: different ways of thinking and innovative solutions are pivotal. This brief overview of the conditions in which many South Africans live will hopefully generate empathy and help to develop and implement ground-breaking interventions. Is this not what nursing should mean in these circumstances?

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Competing interests

The authors declare that they have no financial or personal relationship(s) which may have inappropriately influenced them in writing this article.

Author contribution

Both authors were responsible for conceptualising the idea, developing the proposal and analysing data. In addition to that, C.D.N. was responsible for data collection and scientific writing whilst S.C.D.W. was responsible for writing the manuscript.

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