

From rural scholar to health care professional

A. Ross*

Department of Family Medicine, University of KwaZulu-Natal, Durban, South Africa

*Email: rossa@ukzn.ac.za

Background: International studies have shown that the best strategy for the long-term staffing of rural facilities is the recruitment and training of students of rural origin. However, the crisis in education in South Africa means that these rural students are the least likely to access institutions of higher learning to train as healthcare professionals (HCPs). The aim of this study was to explore the educational experiences of six HCPs of rural origin working in rural areas.

Methods: This was a qualitative study using unstructured interviews supplemented by photomemory and collage development. All interviews were transcribed verbatim and themes were developed. Appropriate ethical permission was obtained prior to the study.

Results: HCPs of rural origin found the journey from rural scholar to HCP to be tough. Personality characteristics such as tenacity, determination, problem-solving skills, self-belief and hard work were essential for success — but not sufficient on their own. In addition these HCPs needed social support, academic and social mentoring as well as comprehensive financial support.

Conclusions: HCPs of rural origin have the potential to provide long-term staffing for rural hospitals. However, if rural healthcare institutions are serious about finding long-term solutions to their staffing challenges, attention needs to be given to finding and appropriately supporting local scholars.

Keywords: academic and social support, health care professional training, rural origin

Introduction and background

In November 2013 the World Health Organization (WHO) released a report highlighting the central role that well-trained, culturally sensitive, competent staff have in attaining and sustaining universal health coverage.¹ It is widely acknowledged that despite the high levels of unemployment in South Africa (SA) there is a shortage of highly skilled professionals, and institutions of higher education (IHE) have a poor throughput of students — due in no small measure to the apartheid legacy of poor schooling.² These factors contribute to understaffing of government health institutions, particularly rural institutions, and poor quality of healthcare delivery.^{1,3,4} International observational studies have shown that the best strategy for the long-term staffing of rural facilities is the recruitment and training of students of rural origin.^{3–8} However, the crisis in education in SA means that these rural students are the least likely to access IHE to train as healthcare professionals (HCPs).⁹ There is no South African research which has used a life-history approach to explore factors that hinder or facilitate the training of rural origin HCPs as they progress from rural student to HCP.

The aim of this study was to understand the educational experiences of rural-origin HCPs currently working in rural healthcare settings. It is hoped that a better understanding of their educational experiences in their journey from rural scholar to HCP will inform and deepen discussions around selection and support of rural origin students, and contribute towards addressing SA's healthcare skills shortage.

Methods

This was a qualitative study using a life-history methodology to explore the educational experiences of six rural-origin HCPs. A life-history methodology was chosen to explore life experiences as stories ('lives as told') and to understand how these HCPs made meaning and sense of their experiences of growing up in a rural context in SA in the 1980s and 1990s and of training to be a HCP.¹⁰

Six rural-origin HCPs were purposefully selected from Umthombo Youth Development Foundation (UYDF) graduates.¹ Selection criteria were richness of information, willingness to participate, being articulate and currently working in a rural context.¹¹ To ensure that the voices of all members of the healthcare team were heard, a variety of HCPs were included in the study (see Table 1).

Data were collected by the author in two unstructured interviews and two discussion sessions, which involved photograph and artefact memory and collage development. The author is the founder of UYDF and currently a trustee, but no longer actively involved in operational aspects of the scheme. None of the participants have any current contractual obligations to UYDF. Each interview and discussion lasted 60–90 minutes; in the first interview participants were invited to tell stories of their life growing up in a rural setting and to relate memories of their primary and high school experiences, as well as their post-school experiences up to the present moment as practising HCPs. The second long interview was used to clarify issues raised in the first interview, and to allow participants to share other meaningful experiences.

Interviews, however, tend to be linear and focus on the 'telling' of stories of a 'life lived'. Visual images allow one to move away from linear thought and open up new ways of thinking.^{12,13} To broaden and deepen the understanding of their experiences each participant was asked to bring four photographs and an artefact to the third meeting, at which participants spoke about each photograph and artefact and the memories that they elicited (see Figure 1 and Figure 2 [all photographs are used with permission]). The fourth meeting was a collage inquiry activity where participants were asked to construct and describe a collage that focused specifically on the topic 'A day in your life as healthcare practitioner'.

All of the data generated from the interviews and arts-based strategies were tape-recorded and transcribed verbatim. The data

Table 1: Healthcare professionals who participated in the study

Name	Current position	Professional qualification and graduation date	Professional experience	Gender
DG	Umthombo Student mentor coordinator	BSc Physiotherapy 2003	2004–2008 Physiotherapist 2008–present mentor coordinator for Umthombo	M
FN	Sub-Saharan coordinator Brian Holden Eye Institute	BSc Optometry 2003	2004–2009 Optometrist — Mosvold Hospital, Pelopele Eye Train 2010–present Brain Holden Eye Institute	M
SM	Psychologist at Hlabisa District Hospital	MSc Clinical Psychology 2009	Clinical psychologist Hlabisa Hospital 2010–present	M
TM	Physiotherapist at Emmaus District Hospital	BSc Physiotherapy 2006	Physiotherapist 2007–present	M
NM	Pharmacist military research post in Mtubatuba	BSc Pharmacy 2004	Pharmacist 2005–present	F
LH	Medical officer Mseleni District Hospital	MBChB 2006	Intern 2007–2008 Medical officer 2009–present	F

Note: F = female; M = male.



Note: A discussion of this photograph of TM outside his house in Ingwavuma (Figure 1) led to a deeper understanding of what it was like for him growing up in a rural area, and the challenges that he now feels as a qualified HCP to be a role model for other young people in his community.

Figure 1: TM outside his house in Ingwavuma.



Note: A discussion around Figure 2 highlighted the importance of friends and a support group at university, which contributed to TM's success.

Figure 2: TM's university friends.

were then reconstructed into six stories. The reconstructed stories included written and visual data, and the 'finalised' version was sent to each of the participants to correct, amend or extend.¹⁴ Reconstructing the story as a narrative was an iterative process of reading and re-reading, selecting and filtering to create a story in such a way that the teller was not diminished or written out of his/her telling.

From these reconstructed stories codes and categories were identified, patterns and relationships between categories were reviewed and themes were developed as described in the literature.^{11,15,16}

Ethical approval was obtained from the Social Science Ethics Committee of the University of KwaZulu-Natal in Durban, SA (HSS/1205/012D). Written informed consent was obtained from all of the participants prior to the start of the study. Consent was given to use the photographs presented.

Results

The journey metaphor provided a structure around which these HCPs could select and organise the details of their reality so that their educational experiences could be seen with some sense of cohesion. The metaphor of climbing a challenging mountain or going on a difficult journey came from the data analysis. The journey from rural student to HCP was tough, with many challenges that needed to be overcome if these rural scholars were to succeed. Material poverty, poor school infrastructure, unmotivated teachers, and being pushed to take subjects at a standard grade (as opposed to higher grade) level all conspired to make this journey difficult.

These HCPs of rural origin found adjusting to the academic and social pressures at IHE to be challenging. Orientation was often inadequate and many missed lectures at the beginning of the academic year because they could not understand the timetable or could not find the lecture venues. Some fell behind almost immediately because of missing lectures, compounded by their inability to understand the lecturers and to take adequate notes. These were top students from rural schools, who felt intimidated by the academic environment and unable to participate and engage with the lectures to understand difficult concepts. This feeling of not belonging was often compounded by lecturers who told them that they would fail and that they should deregister. This sense of not belonging, of not being able

to cope — particularly when they failed tests and assignments — threatened to undermine their self-belief and confidence in their ability to succeed:

'English was a challenge.... I had never had a white lecturer standing in front of me and teaching in English, only English ... telling us something that we really needed to understand. They spoke so quickly that I couldn't understand what they were saying. It was the speed, they'd say this and this and this and then finish and then they'd be gone! And I couldn't even take notes because everything was so quick!' (TM)

'On three occasions I got a note on my assignment "go and see the lecturer". That was tough because at high school I was always a top student. I started to question myself — "Is there something wrong with me? Is this really for me?" and I felt so discouraged.' (SM)

To succeed at university these rural origin students needed to ignore those rural voices on the roadside which told them that going to university and succeeding was not possible. They needed to close their ears to the lecturers who told them that they would fail and be excluded. When the going got tough they needed to resist the urge to follow their peers who had left school to work in the mines, and they needed to rescript their socialisation, which told them 'that working in the mines was going to be a great experience.' (SM)

From the data the following four themes were identified:

- (1) determination to complete the journey;
- (2) support for the journey;
- (3) funding the journey; and
- (4) pressure on the journey.

Determination to complete the journey

No major undertaking can be successfully accomplished without determination, self-belief and a realistic assessment of the difficulties, as well as hard work. Travellers often face challenges that can seem overwhelming, and it is the determination to succeed and find solutions no matter what the difficulties are which may be the difference between success and failure. These graduates were solution finders, both at school and at university. Despite the difficulties and challenges these students faced, they learnt to take responsibility for their own learning because they saw education as a way out of poverty. They were determined to succeed and they looked for solutions to address deficiencies in their school education, even if it meant walking 10 km for extra maths lessons, and forming study groups:

'... we formed a study group — there were five of us — we used to share information with each other to ease the pressure.' (DG)

These graduates were able to take the life lessons from their rural schooling experience to university, where they continued to find solutions to the challenges they faced. They attended extra English classes and made friends with other students who only spoke English, so that they were forced to communicate in English. In addition, they were able to apply what they had learnt at school about cooperative learning and they formed study groups to help them master the work at university:

'Study groups were a way of cementing my knowledge. I studied by myself first, then when we were in a group, I shared what I've learned. Right up to my final year I worked in study groups.' (DG)

A realistic assessment of their deficiencies and a willingness to access available support to address these deficiencies was an essential component of their success at IHL:

'You can't fix a problem unless you are prepared to say "I failed. I have a problem. I must do something." You need a kind of a hunger to succeed, a determination to succeed, a kind of whatever it takes to succeed attitude.' (DG)

A determination to succeed, a can-do attitude and a willingness to work hard were key personality characteristics that contributed to their success. In addition, academic success encouraged them and built a belief that they could succeed and that hard work paid off:

'We worked, worked, worked. In June, I moved from the 17% I got in the previous year to 62%. It was the same for Biology. After passing Physics it gave me the confidence that I can do this.' (DG)

These students were highly motivated and determined to succeed. For these rural scholars the opportunity to go to an IHL was the chance of a lifetime. Success virtually guaranteed permanent full-time employment; failure was unthinkable:

'Failing would mean going home to ... what? If you don't pass you will come back and stay in the rural area and you'll be the same or worse person there like you were before.' (TM)

Support for the journey

In spite of their self-belief, determination, hard work and problem-solving abilities, this educational journey might not have succeeded without the support and funding they received. Their families prioritised education and communicated the importance of education and persisting at school. Critical others such as teacher and friends saw potential in them and played an important role in encouraging them to continue their studies:

'My mum believed in education as the key to everything. Although she had got no education at all — she thought that if her kids can get education, they'll be better people. She was the person motivating me.' (SM)

'When I was doing Standard 3, my class teacher said "you can be a good teacher" and the Principal promised to employ me when I passed matric. This motivated me to work hard at school.' (DG)

Most universities have academic support programmes available for students. However, students need to utilise these services if they are to benefit from them. These HCPs asked for tutors and mentors and took advantage of the institutional support available, which was provided by Medical Education for South African Blacks, tutors and university academic staff.

Over and above the institutional support, UYDF provided academic and social mentoring and demanded academic accountability. Students were expected to find solutions to the challenges that they faced at the IHE and to pass. The compulsory UYDF mentoring programme provided social support and ensured that students were accountable to one another as well as to the scheme. As part of this accountability students were asked to give regular feedback to one another and to the funder about solutions to problems they encountered:

'We had monthly meetings, and we'd discuss how everyone was doing. Sometimes when you haven't done well in a test, say you

got 45%, you get depressed, or are embarrassed to tell others that you didn't pass. It was tempting if you had done badly to hide your result or even lie about your results and say "I have passed", when in fact you haven't passed. But you know when you're in these groups, you will hear someone say "No, I haven't done well, I got 35%". And you would say "Yoh, I got 45%, I'm much better than this guy!" And someone else would come and say "No, they got 70% or 75%", then you would think if he got 75%, why don't I just try to get 50%, or 55%. Then you work even harder'. (TM)

Funding the journey

Funding for university for black rural students in SA is a major issue, and without it students with potential cannot even begin this leg of their educational journey. All of the participants alluded to this, but none so powerfully as NM who, after her father died, resigned herself to the fact that 'there's no way I can go to university now ... that varsity thing, forget about it. I think I lost hope in 1997'. These were students with incredible potential, wanting to improve their lives and their family circumstances, wanting to have a chance in life but trapped by insufficient resources, the unavailability of State resources or the lack of information about resources. NM and TM capture something of the impact that funding had for them:

'In January 2002 I went to the University of the Witwatersrand to do Pharmacy. That's when my life changed. Things changed because I got a chance.' (NM)

'Umthombo came to my rescue. That scholarship, ah, I don't have a proper name, but it was where everything started to change. That's where I got my life that I'm living now.' (TM)

Accessible funding gave them a chance, which these HCPs seized with both hands.

Pressure on the journey

In any undertaking, particularly a major undertaking, there is pressure to succeed and finish the journey. For these rural students this was a high-stakes winner-takes-all endeavour. There was the pressure that they put on themselves:

'I had no option, I had to make it. And if I don't make it, I'd lose the scholarship and it would just be the end of the world.' (SM)

There was also external pressure to complete from the community and the funder who had to raise money from corporate South African companies who did not want to see their donations wasted on students who were failing:

'We did not want to fail ... because it was an embarrassment, not only to yourself but to the whole community, because in the rural area, once you go to university, everybody in a hundred kilometre radius knows. To come back now, having not finished, is always a very big disappointment to many people.' (FN)

Discussion

The educational journeys of these HCPs illustrate that rural-origin students have the potential to succeed at IHE, and if properly identified and supported can be part of the long-term solution to staffing of rural hospitals.

This study suggests that the journey from rural scholar to HCP is tough. Lack of resources impacts upon educational opportunities and aspirational poverty stifles dreams, as one's belief in the possible is often limited by the experiences of other individuals in

the community.¹⁷ Many rural schools in SA are unable to provide the tools necessary for scholars to take advantage of educational opportunities. Many of these schools are poorly resourced and staffed by teachers who themselves were under- or poorly trained.^{18–24} As highlighted in other studies, poor proficiency in English and poor studying skills were identified as particularly challenging by these HCPs, skills which should have been provided at school in preparation for attending IHE.^{18–25} However, this study suggests that despite the challenges, rural families and communities are resilient and resourceful and have the potential to encourage and support rural-origin students.

Significantly, rural-origin students in this study showed that they had the potential to succeed manifest in their personal characteristics, such as their determination, problem-solving, self-belief and hard work. These rural-origin students were determined to succeed, and willing to work hard, study together and ask for help. A realistic self-assessment of one's deficiencies and a willingness to access institutional and other support available to address these deficiencies has been identified as key in the development of academic resilience and success at IHL.²⁶ Although a rural upbringing is often associated with deficiency, Balfour (2008) has suggested that rural experience may in fact be an advantage.²⁷ Finding solutions to many of the challenges encountered in their community provided these rural students with life skills which they were able to apply in other environments. These rural students were problem solvers who had learnt the value of cooperative learning and personal strengths, adopt problem-solving behaviour, seek out social support from like-minded peers and learn how to access resources at university.²⁰ They believed in themselves and their potential and were determined to succeed. These personality factors are important to draw upon to help rural origin students succeed at IHL.

If one believes that rural graduates are the solution to staffing rural hospitals, innovative strategies need to be found to identify and support rural students with potential who are interested in careers in the health sciences. This study suggests that the process of recruiting and selecting students from rural contexts needs to consider variables beyond academic performance in high school. Rather, personal characteristics such as determination, problem-solving ability, self-belief and hard work must form part of the skills and attitude package that rural-origin students must have to be selected for study at university.

These traits may or may not be obvious and immediately recognised by significant others (parents, teachers and university selectors) and even the student themselves. Currently the selection of UYDF students is based on an interview with hospital and community members after the completion of pre-selection work experience. Academic ability is assumed if students meet the university entry requirements. However, in a systematic review of selection practices that predict rural practice, Henry, Edwards and Crotty (2009) reported that the predictive power of interviews was modest, while prior rural residence was the strongest predictor of rural placement.⁶ Further research is needed in this area as it may be other aspects of the programme, such as the rural origin of these students, the community involvement in their selection or the financial and mentoring support provided, which encouraged these graduates to return to work in rural areas.

However, even great potential, determination and problem-solving ability may not be enough to ensure success in the journey from rural scholar to HCP. In keeping with other studies, these students also needed social support, academic and social

mentoring as well as comprehensive financial support.²⁵ This study has highlighted the role of support from family and peers, all of which was important for these rural scholars as they trained to become HCPs. Benard (2004) has highlighted the importance of even one supportive relationship which promotes high academic goals and encourages scholars to aim high. This relationship can make a major difference in the academic life of students, even in the face of dysfunctional families and poorly functioning schools.²⁸

The UYDF funding communicated a belief in the potential of these students, and was linked to accountability and participation in mentoring programmes and in communities of learning, all of which were identified as important in their success. Student participation in communities of learning with peers and academic staff has been shown to lead to greater social and academic engagement, greater support and encouragement, willingness to risk acknowledging deficiencies and looking for solutions, greater access to faculty support services and improved academic achievement.^{29–31} Universities and other funding organisations need to review how funding can be used more effectively to promote academic and social engagement at IHL, as these have been shown to be important factors influencing student success.²⁰

The compulsory UYDF mentoring programme is proactive, it monitors students' progress, provides peer support and encourages engagement with the academic community, all important aspects of Tinto's proposed interventions to support student engagement and success at IHL.³² UYDF also holds students accountable and encourages them to reframe current challenges and find solutions in the light of previous successes. The mentoring is provided with the expectation that they would succeed because they had potential. Morales and Trotman (2004: 45) state that 'high expectations based on the strengths, interests, hope and dreams [of students] helps [them] tap into their intrinsic motivation and own desire for learning and personal gain'.²⁶ Hospitals and other organisations that are serious about finding rural scholars who can train to become HCPs should take cognisance of this fact and the experience of UYDF in the role of setting high standards and providing ongoing support.

Rural students often come from poor families and as such are unable to finance studies at IHL. In keeping with other studies, families often prioritise funding for schooling but not for tertiary education.³³ Tinto (2012) reported that finances often affect decisions about whether or not one can access IHL, but did not influence student persistence at IHL.³² There is, however, other research which suggests that lack of funding contributes to many students dropping out of IHL.²⁰ The experiences from this cohort suggest that finances influenced their decision about whether or not they could pursue further education, but was not a significant factor at university as they were fully funded. The South African Government has an extensive financial support programme for financially needy students. However, based on the findings of this study, information concerning government financial support does not appear to reach all rural areas. It is essential that relevant, accessible funding of students with potential be made available if these students are to reach their full potential and make a significant contribution to the health services of the country.

Strengths and limitations of study

The strength of this study lies in the fact that it gives a voice to rural-origin HCPs for them to share their experiences. The small number of participants and the qualitative nature of the study mean that the findings cannot be generalised to other settings.

However, it is hoped that those reading this study will be able to identify with the participants and apply learning to their own context.

Conclusions

That these rural-origin HCPs succeeded in overcoming multiple challenges is a tribute to their determination, their belief in their own potential, and their dream for a better future. It attests to their willingness to work hard, smart and with others, to develop realistic insight into their challenges. They had a willingness to find solutions as well as a refusal to listen to those negative voices telling them that it was impossible.

For those involved with the selection, training and support of students of rural origin, greater cognisance needs to be taken of the difficulties that these students face and the pressure that they feel. Appropriate support (such as peer and academic mentoring and encouraging formation of communities of learning) needs to be put in place to ensure that they succeed. In addition, suitable funding models need to be developed to enable students of rural origin to access the necessary financial support to be able to train at IHL.

Further research is needed around student selection to clarify which personal attributes help to predict success at university and a willingness to return and work in rural areas.

Note

i. UYDF is an innovative rurally based scholarship supporting rural youth to train as HCPs.

References

1. Global Health Workforce Alliance and World Health Organization. A universal truth: no health without a workforce. Geneva: World Health Organization; 2013.
2. Council on Higher Education. A proposal for undergraduate curriculum reform in South Africa: the case for a flexible curriculum structure. Pretoria: Council on Higher Education; 2013.
3. Versteeg M, Couper ID. Position paper: rural health — key to a healthy nation. Johannesburg: Rural Health Advocacy Project; 2011 [cited 2011 15 April]. Available from: http://www.rhap.org.za/wp-content/uploads/2011/03/Rural-Health-Key-to-a-Healthy-Nation-RHAP-Position-Paper_March-2011.pdf
4. Tumbo JM, Couper ID, Hugo JF. Rural-origin health science students at South African universities. *S Afr Med J*. 2009;99(1):54–6.
5. Wilson NW, Couper ID, De Vries E, et al. A critical review of interventions to redress the inequitable distribution of healthcare professionals to rural and remote areas. *Rural Remote Health*. 2009;9(2):1–21.
6. Henry JA, Edwards BJ, Crotty B. Why do medical graduates choose rural careers? *Rural Remote Health*. 2009;9(1):1–13.
7. Laven G, Wilkinson D. Rural doctors and rural backgrounds: how strong is the evidence? A systematic review. *Aust J Rural Health*. 2003;11(6):277–84.
8. Dunbabin J, Levitt L. Rural origin and rural medical exposure: their impact on the rural and remote medical workforce in Australia. *Rural Remote Health*. 2003;3:1–17.
9. Spaul N. South Africa's education crisis: the quality of education in South Africa 1994–2011. Johannesburg: Centre for Development and Enterprise; 2013.
10. Polkinghorne D. Narrative configuration in qualitative analysis. In: Hatch JA, Wisniewski R editors. *Life history and narrative*. London: Falmer Press; 1995. p. 5–23.
11. Terre Blanche M, Durrheim K, Painter D, editors. *Research in practice. Applied methods for the social sciences*. Cape Town: University of Cape Town; 2006.
12. Butler-Kisber L, Poldma T. The power of visual approaches in qualitative inquiry: The use of collage making and concept mapping in experiential research. *J Res Pract*. 2010;6(2):1–16.

13. Samaras AP. Explorations in using arts-based self-study methods. *Int J Qual Stud Educ.* 2009;23(6):719–36.
14. Lincoln YS, Guba EG. Establishing trustworthiness. *Naturalistic inquiry.* California: Sage; 1985. p. 289–331.
15. Pope C, Mays N, editors. *Qualitative research in health care.* Massachusetts: Blackwell Publishing; 2006.
16. Strauss A, Corbin J. *Grounded theory methodology: An overview.* In: Denzin NK, Lincoln YS, editors. *Handbook of qualitative research.* Thousand Oaks: Sage; 1994. p. 273–285.
17. Ray, D. Aspirations, poverty, and economic change. In: Banerjee AV, Bénabou R, Mookherjee D, editors. *Understanding poverty.* Oxford: Oxford University Press; 2006. p. 409–22.
18. Adam F, Backhouse J, Baloyi H, et al. *Access and throughput in South African Higher Education: three case studies.* Pretoria: Council on Higher Education; 2010.
19. Davidowitz B, Schreiber B. Facilitating adjustment to higher education: towards enhancing academic functioning in an academic development programme. *S Afr J Higher Educ.* 2008;22(1):191–206.
20. Lubben F, Davidowitz B, Buffler A, et al. Factors influencing access students' persistence in an undergraduate science programme: a South African case study. *Int J Educ Dev.* 2010;30(4):351–8.
21. McCarthy J, Oliphant R. *Mathematics outcomes in South African schools: what are the facts? What should be done?* Johannesburg: Centre for Development and Enterprise; 2013.
22. Scott I. Access, success and curriculum: aspects of their organic relationship. In: Dhunpath R, Vithal R, editors. *Alternative access to higher education: underprepared students or underprepared institutions.* Cape Town: Pearson Education; 2013. p. 26–48.
23. Sennett J, Finchilescu G, Gibson K, et al. Adjustment of Black Students at a Historically White South African University. *Educational Psychology.* 2003;23(1):107–16.
24. Simkins C. *Performance in the South African Educational system: what do we know?* Johannesburg: Centre for Development and Enterprise; 2013.
25. Diab PN, Flack PS, Mabuza LH, et al. Qualitative exploration of the career aspirations of rural origin health science students in South Africa. *Rural Remote Health.* 2012;12:1–11.
26. Morales EE, Trotman F. *Promoting academic resilience in multicultural America: factors affecting student success.* New York, NY: Peter Lang — International Academic publishers; 2004.
27. Balfour R. Troubling contexts: towards a generative theory of rurality as education research. *J Rural Community Dev.* 2008;3:95–107.
28. Benard B. *Resiliency: what have we learnt?* San Francisco: WestEd; 2004.
29. Tinto V. *Completing College.* Chicago, IL: The University of Chicago Press; 2012.
30. Tinto V, Pusser B. Moving from theory to action: building a model of institutional action for student success. 2006 [cited 2012 June 28]; Available from: http://cpe.ky.gov/NR/rdonlyres/D7EE04D0-EE8C-4ACD-90F6-5BB3C8BC8E05/0/SS_related_info_6_22_3_Moving_from_Theory_to_Action.pdf
31. Van Rheede van Oudtshoorn GP, Hay D. Group work in higher education: a mismanaged evil or a potential good? *S Afr J Higher Educ.* 2004;18(2):131–49.
32. Tinto V. *Leaving college: rethinking the causes and cures of student attrition.* 2nd ed. Chicago, IL: University of Chicago; 2012.
33. Chisholm L, Morrow S, waKivulu M, et al. *Emerging voices. A report on education in South African rural communities.* Cape Town: HSRC; 2005.

Received: 18-02-2015 Accepted: 07-07-2015