the community and then moved on without them.

In Ekurhuleni, gaining community entry meant driving long distances to find ward councillors. Some councillors did not honour their appointments and the field team would drive all the way and return to Pretoria without consent. Gaining access to communities was therefore, done during the actual fieldwork. As the team completed data collection at one site, the team leader would proceed to negotiate entry into the next study site.

The taxi strike

In the City of Johannesburg and Ekurhuleni, the provincial taxi strike that occurred in June 2017 disrupted the field team's work. On the first visit to the Ekurhuleni, they had to turn back to avoid being caught up in the violence. After the strike, they visited the regional offices in Ekurhuleni to introduce the study to the MMC who was not available. The assistant of the MMC, however, helped the field team with the contact details of the relevant ward councillors. In addition, the Ekurhuleni team also visited the customer care centres in the region and got details of ward councillors.

Lessons for practice

The researchers found that community entry is dictated by context and the field teams have to adapt to that, hence the variations in entry and consent in each region. Where a field team encounters a service delivery protest, it is best to turn back and visit when calm has returned to the community. Taxi strikes also endanger field teams and when these occur, teams are required to keep away from fieldwork and use the day organising field materials. The unavailability of councillors might signal a potential refusal.

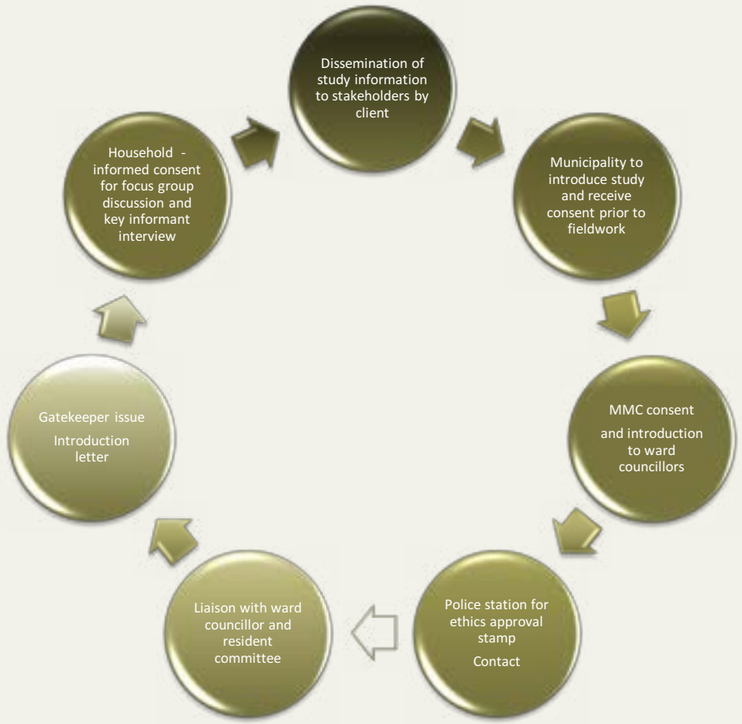

Figure 2: Revised community entry strategy

When councillors are always unavailable to meet the field team to gain consent, it is best to move on to other sampled sites. In the meantime, the field team needs to request an alternative study site while, continuing to attempt to reach the unavailable councillor.

After working in the field, the researchers redesigned the initial community entry strategy by building in two extra steps of consultation (Figure 2). Before visiting and introducing the study at the municipal offices, the team recommends that the client – in this case the GDHS – first disseminates information about the study to the stakeholders. After introducing the study at the municipality, the team should first meet with the MMC to be introduced to the ward councillors, before proceeding to the police station.

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RA
Review Article

School climate and mathematics achievement: Can the children learn?

Recently, the media covered high levels of violence and bullying in schools highlighting safety concerns in schools. Learners need to be in an environment where they feel safe for effective teaching and learning to take place. *Lolita Winnaar* examines the school climate in secondary schools in South Africa based on data from the 2015 Trends in International Mathematics and Science Study (TIMSS).

The safety of learners at school plays an important role in their achievement. However, many South African schools are plagued by issues of ill-discipline, disorderly conduct of learners and teachers, and varying degrees of violence, all of which have a devastating impact on learners' ability to learn and to live healthy and productive lives.

To some extent, the school that learners attend is a reflection of the surrounding community; hence, they are susceptible to the same risk factors. There is also a clear relationship between poverty and high levels of violence in schools, which in turn have adverse effects on learner academic success.

School climate has been defined in a number of different ways but, simply put, it is the heart and soul of a school. Ill-discipline, bullying and violence occurring in schools are the results of a poor school climate within schools that are often located in high poverty areas.

Data from the TIMSS formed the basis for analysis in this piece. The TIMSS assesses learners in mathematics and science but it also collects information from schools, teachers and learners so we can look at whether there are relationships between the learning environment and academic achievement. According to the TIMSS framework, a school with a positive climate tends to place a high emphasis on academic success. Its teachers face few challenges, there are very few or no problems with bullying and discipline, and learners and teachers feel safe there.

These results focus on school climate in relation to mathematics achievement within South Africa compared to the international scenario at the grade 9 level.

Emphasis on academic success

Principals responded to a set of statements relating to the extent to which their schools emphasise academic success. Only 1% of South African Grade 9 learners attended schools that placed a very high emphasis on academic success, compared to 7% internationally. There is an achievement gap in mathematics of 179 points on average between learners attending schools that place a very high emphasis on academic success and those that do not.

Challenges faced by teachers

Teachers were asked to respond to several statements related to challenges that they face. Some of these included statements related to class size, curriculum coverage and implementation, time to prepare for lessons as well as pressures from parents.

There was an association between the challenges that teachers face, and learners' mathematics achievement. Learners attending schools where teachers face fewer challenges obtained higher mathematics scores on average than learners attending schools where teachers faced many challenges. Sixty percent of South African learners attended schools where teachers faced some challenges. The percentage of schools facing many challenges in South Africa is double the international average.

Bullying

Learners were asked to respond to nine statements related to bullying

that they have been exposed to. These responses were combined to create an index of the extent of bullying; with three categories: 'almost never', 'about monthly' and 'almost weekly'.

A correlation exists between incidences of bullying and learners' mathematics achievement. Learners, who do not experience bullying at school, score on average 68 TIMSS points more than learners exposed to bullying, which is equivalent to more than a grade difference. In South African schools, 17% of Grade 9 learners are bullied on a weekly basis, which is double that of the international average.

The chances of being bullied regularly were higher for boys than girls, especially among lower performing learners. The difference between boys and girls being bullied became smaller as mathematics achievement improved.

School discipline

Principals responded to statements relating to aspects of discipline

in their schools and the results were divided in three categories: schools with 'hardly any discipline problems', 'minor problems', and 'moderate to severe problems'. The percentage of learners attending schools with severe discipline problems is three times higher in South Africa than the international average. There was a positive association between the level of school discipline and learners' mathematics achievement, with a score difference of 64 points between learners attending schools with hardly any problems and those attending schools with severe discipline problems.

Safe and orderly schools

Teachers responded to eight statements included in the safe and orderly school index. It included three categories: 'very safe and orderly', 'safe and orderly' and 'less than safe and orderly'. This index showed an achievement gap of 49 points on average between learners attending schools that are considered very safe and orderly, and those that are not safe and orderly. Compared to the international average (8%), schools in South Africa are almost three times less safe and orderly (22%).

A proactive approach needed to create healthy school climate

The 2015 TIMSS results show that learners that perform well in mathematics mostly attend schools that place a very high emphasis on academic success; whose teachers are faced with few challenges; that have low levels of bullying and very few problems with issues of discipline and safety. Within the South African context, these schools were most often the better-resourced ones, for example fee-paying schools. This suggests that learners from poorer households are trapped in schools with a poor school climate. A healthy school climate is one where all participants (learners, parents, teachers and school management) have a clear understanding of the ethos of the school and have a sense of belonging. For the majority of schools in South Africa to reach this point, all schools need to emphasise academic success and address challenges related to teaching, discipline and safety.

The Department of Basic Education has implemented initiatives, such as the National School Safety Framework and crime prevention programmes with the South African Police Services to improve safety in schools, however, more needs to be done. A proactive approach is required where school climate resides at the heart of the solution. Each hierarchy within the education system needs to be involved. Provinces have to ensure that schools implement the schools safety framework, and districts have to support schools to improve school climates. Schools have the responsibility to ensure that learners are safe, academically stimulated and disciplined. The ultimate objective is to have schools with a healthy school climate that supports learners' ability to learn and to live healthy and productive lives.

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RA
Review Article

A nuanced approach to **adolescent sexual and reproductive health** services legislation: **IS IT ENOUGH?**

South Africa has progressive legislation enabling adolescents to access various sexual and reproductive health services independently, without consent from their parents or legal guardians. However, are adolescents who engage in consensual sex sufficiently protected, especially the girl child? In a recent article in the *South African Medical Journal*, Prof. Ann Strode from the University of KwaZulu-Natal's School of Law and Dr Zaynab Essack, an HSRC senior research specialist, identified the strengths and weaknesses of this legislation.

Research has shown that adolescents in South Africa are at risk of HIV, sexually transmitted infections and pregnancy owing to high-risk sexual practices as well as other social, physical and structural challenges. Many adolescents have limited access to sexual and reproductive health services.

Statistics South Africa reported that 99 000 school-going adolescent girls fell pregnant in 2013. The 2012 National HIV Prevalence, Incidence and Behaviour Survey found an HIV prevalence of 7,1% for youth aged 12-14 years and that there were 113 000 new HIV infections among young women between 15-24 years, an incidence four times higher than their male peers.

It is therefore crucial that adolescents have sufficient access to sexual and reproductive health services, but requiring parental permission might deter adolescents from accessing these services. Studies have shown that many do not wish to disclose their sexual activity to their parents, often because they are concerned about disappointing their parents, they are embarrassed or because they feared punishment. The context of South Africa's child-headed households represented an additional challenge.

Previously, the dilemma was that South Africa's Children's Act enabled adolescents to access a range of sexual and reproductive health services independently,