High school girls’ and violence: A mixed-methods investigation

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ABSTRACT
Violence is a problem of epidemic proportions among the youth both internationally and locally. Women and girls are not immune to the high levels of violence in society. The overall purpose of this study was to gain a better understanding of health risk behaviours among black female high school learners in the Strand, Western Cape, South Africa. This article reports only on those behaviours related to violence. The method of enquiry used in the study was a mixed-method sequential explanatory strategy. In the 1st phase, learners completed a self-administered questionnaire adapted from the Youth Risk Behavior Surveillance Survey (YRBSS) developed by the Center for Disease Control and Prevention (CDC) in the United States (US). In the second phase, focus group discussions were conducted to explore and examine socially constructed views of learners on behaviours related to violence. The cross-sectional data of this study illustrated that many high school learners are exposed to a number of health-impacting risks derivative of exposure to multiple forms of violence. The qualitative data expanded on and contextualized the quantitative findings. The study highlighted that detailed attention must be paid to the role of the social environment as antecedent to the adoption of risky behaviors such as violence related activities.

Keywords: high school girls, violence, mixed methods strategy

INTRODUCTION
International and South African literature suggest that violence is a problem of epidemic proportions among the youth (Soriano, Rivera, Wiliams, Daley & Reznick, 2004; Burrows, Bowman, Matzopoulos & Van Niekerk, 2001). Price, Telljohann, Dale and Marsico (2002) stated that the youth are now more likely than ever to be confronted with the daily reality of an omnipresent model of physical aggression and violence. For the past two decades
homicide has been the second leading cause of death among 15–24 year olds in the USA (Cheng et al., 2001; Sweatt, Harding, Knight-Lynn, Rasheed & Carter, 2002). However, Cheng et al. (2001) cautioned that although the number of youth dying from violent injuries is high, the rates of nonfatal injury rates caused by violence and risky behaviour are higher for adolescents than for any other age group. Soriano et al. (2004) alerted researchers to the fact that violence may involve a youth victim, a youth perpetrator or both.

According to Krug (2000) the homicide rate for African countries is 11 times higher than the homicide rate for high-income countries. In a report by the National Injury Mortality Surveillance System (NIMSS) in South Africa, Peden (2000) reported that injury was the major cause of death among youth and 58% of injury deaths were due to homicide.

It has been noted by several authors (Jewkes, Levin & Penn-Kekana, 2002; Peltzer, Mashego & Mabeba, 2003) that South African society is very violent. Jewkes et al. suggested that “decades of state-sponsored violence and reactive community insurrection, have contributed to a situation in which for many people physical violence is a first line strategy for resolving conflict and gaining ascendancy” (2002, p. 1604). Violence, however, is not evenly distributed across all neighbourhoods and demographic groups. Evidence suggests that it occurs at a higher rate in low-income neighbourhoods, disproportionately among the youth (Sweatt et al., 2002; Soriano et al., 2004).

Women and girls are not immune to the high levels of violence in society. Women and violence has become a topic of increasing concern (Hunt & Joe-Laidler, 2001). These authors further stated that over the last decade public concern has risen above the problems of women as victims and offenders of violence. It has been suggested by the Human Rights Watch (2001) that women and girls are often most vulnerable, particularly to violence that is either directed against women and girls because they are female, or violence that affects women and girls disproportionately.

Adolescent women are profoundly affected by a number of health risks related to their behaviour. The literature has indicated a number of lifestyle behaviours which account for most of the mortality, morbidity and social problems among adolescents. These behaviours include excessive tobacco use, unhealthy dietary behaviours, physical inactivity, alcohol and other drug use, risky sexual behaviours, and behaviours that result in both unintentional and intentional injuries (violence) (Muscari, 1999).

For the purpose of this study, the following racial categories have been used: “African Black”, “Coloured”, “White” and “Indian”. The “Coloured” population group is a population of mixed i.e. Afro-Euro-Malay-Khoisan, ancestry (Temple, Steyn, Hoffman, Levitt &
Lombard, 2001). The race/ethnicity variable was based on the former government’s classification system (i.e. Black, Coloured, White and Indian/Asian). Although these designations continue to influence the schools to which children go, the communities they live in, and their socio-economic status, the authors acknowledge that using “racial” labels is ill conceived. Ellision, De Wet, Ijsselmuiden and Richter (1996) also warned that there are dangers of analysing data by race classification because these designated groups do not have anthropological or scientific validity. However, these authors stated that, there are differences among the groups for many indicators of health, mediated by political and economic factors. Prior to 1994, fewer resources and funding had been allocated to the black population in South Africa. The inadequacies and inequalities in the “apartheid” system reflected and reproduced the socio-economic disadvantagement that was experienced by the disenfranchised racial groupings. Therefore, in this study, the use of the race/ethnicity refers explicitly to the social conception of race.

The purpose of this study was to gain a better understanding of health risk behaviours among “African Black” and “Coloured” female high school learners in the designated research locale of a specific community in the Strand, Western Cape, South Africa. This article only reports on the findings related to those behaviours pertaining to violence among black female high school learners. The method of inquiry in the study was a mixed method sequential explanatory strategy.

Romer and Hornick (1992) have argued that theories, such as the Health Belief Model and the Transtheoretical model, neglect the important contribution of the social environment in supporting healthier behaviour. They described a model of social consensus that allows alternative routes for educational influence at both individual and social levels. This model assumes that basic knowledge and skills for avoiding health threats may not be enough for behaviour change unless socially-mediated influences that can hinder behaviour change are addressed. Though not a test of the Social Consensus Model, this article examines related hypotheses suggesting that possible ways to avoid health risks related to violence inevitably raises social issues that require further resolution before appropriate action can be taken.

**METHOD**

The present study was not a multi-site epidemiological study and was located in the Strand, Western Cape, South Africa for various reasons. The Strand is demographically typical of the Western Cape in its proportion of “Black African” and “Coloured” youth. The reason for not including White female learners in the study stems from the idea that Black (“Black African” and “Coloured”) female learners come from lower socio-economic groups. The literature has shown that individuals from lower socio-economic groups are more prone to
health risk behaviours, including exposure to violence, than their counterparts from higher socio-economic groups (Sweat et al., 2002). Another reason for choosing this particular setting was that good access to all the schools in the Strand could be negotiated. All the learners from the schools came from the community in which the schools are situated, thus enabling the researchers to investigate the contextual factors associated with health risk behaviors. Another compelling reason for choosing this particular research setting was that it has a good distribution of different ethnic groupings living and receiving schooling in the same environment.

Within the Strand area, there are four high schools that cater for the adolescent age group. Although all the schools are non-racial, only three of the schools enroll primarily Black learners. The fourth school has a negligent number of Black female learners enrolled and was subsequently excluded from the study’s sampling frame. The three schools have learners from the age of 13 years in age in grades 8 to 12. The Western Cape Education Department (WCED) stipulates in its guidelines and procedures for Education Research that learners in their final year of study should be excluded from studies undertaken by private researchers. Thus the sampling frame was further reduced to exclude Grade 12 learners in accordance with the regulation cited above.

Permission was obtained from the WCED to invite the female learners enrolled at the schools to participate in the study. Subsequently, permission was obtained from the principals and the parent-teacher associations at the respective high schools. The principals of the schools took the ethical responsibility of informing the learners’ parents beforehand through the parent-teacher-associations. Parent-consent forms and learner-consent forms were distributed at the parent-teacher-association meetings at the schools. Learners returned signed parent-consent and learner consent forms to their teachers who in turn submitted them to the researchers. The final sampling frame thus consisted of those Black female learners who returned the signed parent and learner consent forms.

This study utilized a mixed method approach, specifically the sequential explanatory strategy. Creswell, Plano Clark, Gutmann and Hanson (2003) identified six major strategies of mixed methods. The sequential explanatory strategy has been deemed to be the most straightforward of the six major mixed methods designs. The strategy is characterized by the collection and analysis of quantitative data followed by collection and analysis of complementary qualitative data (Creswell, 2003).

In this study priority was given to the quantitative data and the two methods were integrated during the interpretation phase of the study. The quantitative phase of the study incorporated a probability sample in that every learner who was eligible for inclusion in
the study had an equal chance of being selected for the study. This type of sample also enabled the researchers to generalize the findings to the designated population. The study specifically employed a stratified sample using grade level as the individual stratum. This means that a learner had to be enrolled for one grade only and inclusion in one stratum would necessarily mean exclusion from any other stratum. In other words, the sample was stratified into four strata corresponding to grades 8, 9, 10, and 11 respectively. In an attempt to minimize disruption in the academic programme, it was decided to randomly select two classes from every stratum or grade in every school.

Thus 24 classes in which 952 female learners were enrolled were randomly selected from grades 8–11 in the three participating schools for the quantitative phase of the study. Of the learners selected only 857 had signed parent-consent forms, thus excluding the remaining 95 learners. Learners completed a self-administered questionnaire to determine the prevalence of behaviours associated with violence and the relationship between these behaviours and socio-demographic variables. The questionnaire was adapted from the YRBSS. The questionnaire has demonstrated good reliability with kappas for the risk-behaviour items ranging from 0.51 to 0.88. Approximately 72% of the items have "substantial" or higher reliability (Kann et al., 1999). The instrument has also been found to have both face and content validity. The YRBSS assesses eight domains of health risk behaviours including cigarette use, alcohol use, and behaviours related to violence amongst others. Items assessing behaviours related to violence included the number of days participants have felt unsafe on their way to or from school; the number of times they have been threatened and or injured with a weapon such as a gun, knife or stick; the number of times they have been involved in and or injured in a physical fight; whether they have ever been hit, slapped or physically hurt on purpose by a boyfriend; and if they have ever been forced to have sexual intercourse.

A total of 801 learners submitted completed questionnaires, reflecting a response rate of 84.1%. The final sample consisted of 801 female high school learners ranging in age from 13–19 years with a mean age of 15.75 years and a standard deviation of 1.57. The socio-demographic characteristics of the sample are illustrated in Table 1.
Table 1: Distribution of selected socio-demographic characteristics of the study sample (n = 801)

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/Ethnicity</td>
<td>306</td>
<td>38.2</td>
</tr>
<tr>
<td>“African Black”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Coloured”</td>
<td>449</td>
<td>56.1</td>
</tr>
<tr>
<td>Other*</td>
<td>26</td>
<td>3.2</td>
</tr>
<tr>
<td>Missing</td>
<td>20</td>
<td>2.5</td>
</tr>
<tr>
<td>Age (years)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>53</td>
<td>6.6</td>
</tr>
<tr>
<td>14</td>
<td>161</td>
<td>20.0</td>
</tr>
<tr>
<td>15</td>
<td>156</td>
<td>19.5</td>
</tr>
<tr>
<td>16</td>
<td>135</td>
<td>16.9</td>
</tr>
<tr>
<td>17</td>
<td>145</td>
<td>18.1</td>
</tr>
<tr>
<td>18 and older</td>
<td>148</td>
<td>18.5</td>
</tr>
<tr>
<td>Missing</td>
<td>3</td>
<td>0.47</td>
</tr>
<tr>
<td>School grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>211</td>
<td>26.3</td>
</tr>
<tr>
<td>9</td>
<td>195</td>
<td>24.3</td>
</tr>
<tr>
<td>10</td>
<td>218</td>
<td>27.2</td>
</tr>
<tr>
<td>11</td>
<td>166</td>
<td>20.8</td>
</tr>
<tr>
<td>Missing</td>
<td>11</td>
<td>1.4</td>
</tr>
<tr>
<td>Education of head of household</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never attended school</td>
<td>37</td>
<td>4.6</td>
</tr>
<tr>
<td>Some primary school</td>
<td>168</td>
<td>21.0</td>
</tr>
<tr>
<td>Some secondary school</td>
<td>470</td>
<td>58.7</td>
</tr>
<tr>
<td>Tertiary qualification</td>
<td>80</td>
<td>10.0</td>
</tr>
</tbody>
</table>
In the second phase of the study focus group discussions were conducted to further explore and examine the socially constructed views of adolescent learners on their smoking behaviours. The purpose for choosing this method and strategy was primarily to deploy the qualitative data to provide an explanation and interpretation of the findings of the quantitative data.

The researchers considered using group differences obtained from analysis of phase 1 to inform the composition of focus groups. The major advantage of this would be increased homogeneity of focus groups. Notwithstanding the above, Bergin, Tally and Hamer (2003) have stated that knowledge is socially constructed and that the credibility of focus groups is enhanced when the group composition is reflective of the social context within which female learners are spending the majority of their time. In view of this, female learners spend 8 hours per day at school in mixed classes, that is, classrooms that are neither homogenous nor formed along predetermined socio- and or demographic grouping variables. Thus the present study incorporated focus groups that were heterogeneous (in terms of race, age, school grades and socio-demographic characteristics). To this end participants were allocated randomly to focus groups within their grade level. It became evident that phase 2 was not dependent on the results or findings of phase 1. Thus it was
decided to conduct all analyses at the conclusion of phase 2. This served a further purpose of reducing researcher bias in the facilitation of the focus groups in phase 2. In addition, the integration of data, as urged by Creswell (2003), was deferred to the discussion.

It was hypothesized that there was a significant difference in the incidence of engagement in behaviours related to violence between “Coloured” and “African Black” learners and significant differences between learners in Grade 8, 9, 10 and 11. Descriptive statistics were employed to summarize the demographic data of the study sample. Cross-tabulations were used to determine the distributions of cases or frequency counts in the various groups. A cursory glance at these cross-tabulations indicated that all the defined groups did not contain sufficient cases to warrant retention of all the grouping variables thus the “Other” group were eliminated from the cross tabulations. The differences in frequency counts in the respective groups were tested for significance using the Chi-square test. However this analysis precludes the use of group size of a covariate. The exact binomial method was used to construct confidence intervals for proportions. The Alpha level was set at \( p < 0.05 \).

Content analysis was used to analyze the qualitative data. The analysis was done by reading through the transcripts again and again, making as many headings as necessary to describe all aspects of the content. Themes were grouped into broader categories in order to reduce the number of themes. However, the researchers emphasized searching for categories that had internal convergence and external divergence, which meant that the categories had to be internally consistent but distinct from one another (Marshall & Rossman, 1995).

**RESULTS**

Phase 1: Quantitative data

Figure 1 summarizes the prevalence of behaviours related to violence among black female high school learners. Overall 21.5% of the participants missed school because they felt unsafe on their way to or from school on one or more days during the 30 days preceding the study [95% CI: 18.6 – 24.4]. Almost one-fifth (19.3%) of the participants had been threatened by someone with a weapon during the 30 days preceding the study [95% CI: 16.5 – 22.1]. Those participants who had been injured with a weapon one or more times during the 30 days preceding the study comprised 13.1% of the total sample [95% CI: 10.7 – 15.3]. More than a quarter (27.2%) of the participants had been involved in a physical fight one or more times during the 30 days preceding the study [95% CI: 24.1 – 30.3]. Overall 14.1% of the participants had been injured in a physical fight on one or more occasions during the 30 days preceding the study [95% CI: 11.6 – 16.4]. Almost 1 in 8 participants (13.6%) reported having been hit, slapped or physically hurt on purpose by
a boyfriend in their lifetime \[95\% \text{ CI: } 11.2 – 16.0\]. Overall 12\% of the participants reported having been forced to have sex \[95\% \text{ CI: } 9.6 – 14.4\].

![Figure 1: Percentage of female high school learners involved in behaviours contributing to violence](image)

Learners in lower grades were more likely to have been involved in a physical fight in the 30 days preceding the study than learners in the higher grades \(p < 0.05\). There was however a significant increase in the prevalence of learners who had been hit, slapped or physically hurt on purpose by a boyfriend in their lifetime with an increase in grade and age\(p < 0.05\).

Phase 2: Qualitative data
The groups were asked to discuss a broad question on violence in school and in their communities. The participants were relaxed, laughed when they felt they wanted to and used a lot of body language during talking. On further examination of the factors that predispose the female high school learners' involvement in violence related activities, a variety of aspects were unearthed. The thematic analysis of the transcripts of the focus groups yielded three main themes namely: (i) awareness of the consequences of violence; (ii) influence of significant others; and (iii) environmental and/or community factors.

Awareness of the consequences of violence
Participants displayed a deep awareness of the negative effects of violence on their lives and schoolwork. Most of the participants do not like the violence in their areas and school
and they are not sure who they can trust as illustrated by following statements:
…If the father hits the mother, the children can’t be at school and learn because they’re thinking, if I go home now, my dad’s going to hit me…
…I am scared to walk around at night. You are scared in your own house too…

The participants also displayed levels of awareness of relationship abuse. The issue of relationship abuse caused a very heated and animated discussion with everybody wanting to speak at the same time, with a lot of disagreement in the focus groups. These sentiments are illustrated below.
…He will probably hit you if he has a good reason…
…No! Why must he hit you in the first place?…
…I will never allow it!…

Influence of significant others
Feelings of mistrust of parents and other adults, such as teachers, were expressed by the participants. This was especially the case when they needed to speak to adults about their problems. Some participants highlighted the fact that if they speak to their parents and are not believed, they internalize their negative feelings.
…For instance, if your stepfather abuses you… and you talk to your mother about it, …but she doesn’t believe you… Your mother might say you are crazy or whatever…now you see – who else can you go to, to talk about it, I can’t trust anybody… Then it gets to you, and later on, you are in denial about it…

Only a few participants felt that they could talk to their mothers or other adults as expressed in the following statement.
…There are other people… your aunts… if you have a good relationship with them…

Environmental and/or community factors
Most of the participants expressed concern about safety at school. Participants felt that schools are accessible to criminals from the neighbourhood. They also expressed concern about the lack of adequate supervision during break times at school. Some quotations illustrating these sentiments are:
…there are still children here at school that could shoot you, then one would not feel safe at school…
…One doesn’t feel safe because the teachers don’t walk around in the school…

Safety in their neighbourhoods was also of great concern to the participants. This was expressed by the majority of the participants in the focus groups as reflected in the
statements below:
…It’s very wild there. They shoot each other…
…You hear about someone just across the road…. Where they hit the man with a piece of concrete across the head…

Discussion
Violence is a problem of epidemic proportions among youth and this study has provided evidence that the youth are engaging in or affected by violence and violence related behaviours in their community and at school. Although the findings of learners missing school are consistent with other local studies (Reddy et al., 2003), this high prevalence raises the question of safety at schools. How successful are schools in keeping learners and staff from harm?

School connectedness is described as an adolescent’s experience of caring at school and sense of closeness to school personnel and environment. Adolescents thus experience school as a safe place. Although school connectedness as such was not examined in this study, the high number of learners missing school could possibly be seen as low school connectedness and that they experience school as an unsafe place. Researchers have shown that connectedness to school demonstrates strong association with safer behaviours and better health outcomes during adolescence (Bonny, Britto, Klosterman, Hornung & Slap, 2000; Resnick et al., 1997).

Violent victimization was another source of unease among the female high school learners. The thematic analysis of the focus groups showed that learners’ safety at school and in their communities is of great concern to them. In this study: almost 1 in 5 (19.3%) of the participants had been threatened with a weapon during the month preceding the study; more than a quarter (27.2%) of the participants had been involved in a physical fight; and 14.1% had been injured in a physical fight. These findings are consistent with other local studies (Reddy et al., 2003). International and South African data imply that violence is a problem of epidemic proportion among the youth (Soriano et al., 2004; Burrows et al., 2001). Price et al (2002) stated that youth today are more likely than ever to be met head-on with the daily reality of a ubiquitous model of physical aggression and violence. Living in a violent community creates stress and depression among adolescents and is a significant predictor of acting-out behaviours (O’Keefe, 1997). Daane (2003) also felt that exposure to violence has a dramatic effect on youth causing both emotional scars and violent or delinquent behaviour.

Dating violence was also experienced by several of the study participants. Although the qualitative data further highlighted this fact, uncertainty about the reasons for its
occurrence was evident. Of great concern is the literature indicating that dating violence among adolescents is associated with a broad range of physical and mental health concerns (Silverman, Raj, Mucci & Hathaway, 2001; Eisenstat & Bancroft, 1999). The health consequences of dating violence are far broader than death and injuries. Victims of violence are at risk of psychological and behavioural problems including depression, alcohol abuse, anxiety, suicidal behaviour and reproductive health problems such as sexually transmitted diseases, HIV/AIDS, unwanted pregnancies and sexual dysfunction (Krug, Mercy, Dahlberg & Zwi, 2002). Another concern highlighted by Swart, Seedat, Stevens and Ricardo (2002) is the fact that early exposure to intimate partner violence, will leave adolescents at risk of future incidents of violence. Several authors have stated that the experience of physical violence during adolescence is likely to represent the beginnings of unhealthy patterns of adult male-female relationships (Jewkes et al., 2002).

The results of the study should be interpreted in the light of the following limitations: Data of the quantitative phase of the study was collected by means of self-administered questionnaires and was thus based on self-report. Self-report measures are open to bias and misreporting but there is growing evidence that such measures are generally reliable. The sample did not include learners who had dropped out of school. There is evidence that the prevalence of violence related behaviours is higher for those who have dropped out of school. Eligible learners declined to participate in the study and this might have introduced bias in the study.

CONCLUSION
Most adolescents engage in several health-risk behaviours before reaching adulthood. Health risk behaviours are activities that can damage a person’s health and wellbeing (Zweig, Lindberg & McGinley, 2001). Some of these behaviours which place young people at risk are: using alcohol, tobacco and drugs; engaging in unprotected sex; having unhealthy dietary behaviours; and being both perpetrators and victims of violence. The adolescent period can thus be considered a critical developmental period from a public health point of view. The cross-sectional data of this study illustrate that many high school learners are exposed to a number of health-impacting risks derivative of exposure to multiple forms of violence. In addition, other factors, motivational and antecedent, such as environmental and personal factors influencing the involvement and or exposure to violence were identified. This study is a clear indication that communities with a lower socio-economic background are more prone to be affected by violence.

The South African Government has embarked on a number of international and local policy initiatives to promote the health and wellbeing of young people since 1994. Among these are the signing of the World Summit Declaration and endorsement of the Convention
on the Rights of the Child (United Nations Children’s Foundation, 2003) and the Human Immunodeficiency Virus (HIV), Acquired Immune Deficiency Syndrome (AIDS) and Sexually Transmitted Infection (STI) Strategic Plan for South Africa 2000-2005 (Department of Health, 2000). The Department of Education launched a five-year plan, Tirisano, in 1999 to address the educational, health and social needs of learners (Department of Education, 2002). The previous minister of Education, Prof Kader Asmal stated in his foreword of the 1st South African National Youth Risk Behaviour Survey (Reddy et al, 2003) that it was his belief that the Tirisano initiative was meant to empower children and that this survey should be seen as the result of this initiative. Notwithstanding these policy initiations, the results of the present study challenge the minister’s statement. It can thus be debated whether these initiatives, including the Tirisano initiative, embarked on by the South African Government can be considered successful.
References


