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URBAN VIOLENCE AND HEALTH—SOUTH AFRICA 1995

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Abstract—Many cities all over the world are the loci of various forms of violence. Violence is a complex phenomenon, its causes are multidimensional and its consequences have ramifications far beyond the immediate perpetrators and victims. The aim of this paper is to review various forms of urban violence and their health consequences, locating them in the wider South African context. Owing to the lack of centralised data, the information presented in this paper is based on the best available data derived from numerous sources. Using the socio-environmental model of health and disease as a framework, violence and its impact on health is discussed. The brief review of political violence, violent crimes, violence against women and domestic violence in South Africa, highlights the fact that SA is a particularly violent society. The data presented suggest a link between the social context of violence and its health consequences, dealing with the impact of urban violence in the form of physical trauma as well as emotional trauma associated with it. Consequently, adopting a comprehensive approach, that violence needs to be understood in the wider societal context and has to be dealt with in the broadest terms possible, as advocated by the “New Public Health” approach, a way forward to reduce levels of violence and cope with its health consequences is suggested. An emphasis is placed on the three levels of prevention and the vital collaboration between the judicial system, police, the health sector as well as the community. Copyright © 1996 Published by Elsevier Science Ltd

Key words—violence, crime, health, South Africa

INTRODUCTION

“One of the most striking characteristics of global societies in recent years is the escalation of violence that permeates our daily lives, and in many cases, changes our lives forever” [1].

Many cities all over the world are the loci of various forms of violence. Violence is a complex phenomenon, its causes are multidimensional and its consequences have ramifications far beyond the immediate perpetrators and victims. “Violence breeds upon itself, and its insidious influence reaches out into every corner of present society, and also into the future, for today’s violence is the seed from which tomorrow’s violence will grow” [2]. It is thus important to analyse violence and its consequences in a wider context.

Since this paper concentrates on health consequences of violence, the “psycho-socio-environmental model of health and disease” [3], was chosen to provide this wider framework. According to this paradigm, violence as a “health related behaviour” as well as its health consequences are rooted in the social fabric of society, and related to a multiplicity of factors. As such it can only be understood within the context of this extensive background. Similarly, discussions around “the way forward” will be located within this paradigm taking into consideration a broad set of components as advocated by the “New Public Health” approach [4].

Often urban violence is linked to poverty and drug trafficking and use. Notwithstanding the validity of this statement, the underlying causes of violence are complex and numerous [5]. A sophisticated understanding of these causes has the potential to provide the basis for effectively dealing with the impact of violence and eventually preventing certain forms of violence from occurring in the future. It is clear that violence derives from factors that vary for different communities [6, 7], and for different forms of violence. The ability to create effective policies and programmes for the prevention of violence and treatment of victims, survivors and perpetrators is dependent on an understanding of the root causes of violence in a specific social context [8]. However, it is beyond the scope of this paper to enter into this arena. Rather, it will attempt to review different forms of violence and their health consequences in South Africa. For this reason general characteristics of the South African society will be presented briefly and a discussion about the way forward and the role of health care services will sum up the issues raised.

Although this paper does not provide a full typology of violence [9], it is important to point out that what constitutes “violence” is always a social construction. Acts of violence deemed legitimate in one society might be considered illegitimate or culturally unacceptable in another [10]. Therefore, attempts to define violence have been complicated by

the need for a broad definition, but at the same time one that will facilitate the protection of persons in a particular society against violence, irrespective of race, culture or creed. For the purpose of this paper a working definition by Lauer [11] will suffice. According to this definition, violence implies the use of force to harm, injure or abuse others.

As stated earlier, the aim of this paper is to review various forms of urban violence in the South African context and associated health consequences. It will therefore not attempt to provide an in-depth analysis of the issues raised but would rather discuss a range of topics and concerns in order to locate them in this context and provide a comprehensive scenario.

METHODOLOGY

Unlike in most developed countries [12], in present day South Africa, there is no central institution or mechanism responsible for routinely assembling and publishing the kind of data required for this paper [13]. This means that essential, organised and reliable information of this nature is badly lacking. The data was, therefore, drawn from various sources, where quite often it has been collected for different purposes and required some sort of adaptation. An attempt was made to use the widest range and the most recent data available. However, this paper does not claim to be an exhaustive review of all data. The sources used were: interviews with key informants, police records, hospital records from specific hospitals, published and unpublished reports, newspaper articles as well as a range of scientific publications.

One of the major problems in South Africa is the inadequate quality of statistical information. All data should thus be interpreted carefully recognising potential inaccuracies. The main problems are related to inaccuracies in population estimates and registration of events, particularly among the Black and Coloured population groups*. Nevertheless, the information available is of definite value for the creation of initial data bases for the construction of surveillance systems, planning of appropriate resources within the health care sector as well as for the development of violence prevention programmes.

Characteristics of the south african society

South African society is characterised by its gross inequalities. These inequalities manifest themselves mainly along racial lines. Owing to the Population Registration Act of 1950, all South Africans were classified into a "population group" at birth, and

*See a discussion on "population groups" in *Characteristics of the South African society*, present paper.

†For this reason reference to the different "population groups" is made in Capital letters.

‡A fuller discussion on this issue can be found in Chikte U.M.E., Gilbert L., Brand A.A. and Lewis H. Racial Classification in Dental literature—Is it Always Necessary? *Journal of the Dental Association of South Africa*, 44, 1989, 337-463.

assigned a status as White, Indian, Coloured and Black (African)†. According to this a person's "social reality" was determined by their membership of a certain group. More specifically, it dictated where people could live, what school they could attend, what jobs were available to them as well as what kind of facilities they could use and with whom they could be sexually involved. Although this act was repealed in 1991, its social effects will remain present for a long time to come and for this reason, statistics in this paper will be presented according to "population groups" or race where appropriate‡.

The current demographic profile has been shaped by racial conflicts over many decades. The data presented in Fig. 1 provide a general picture of the different "population groups" in South Africa.

Additional points with regard to the relevant characteristics in the context of this paper according to "South African Health Review 1995" [14] are the following.

Population growth. The national average annual rate of growth for 1991-1994 was 2.1% and varies from 0.7% for Whites to 2.5% for Africans.

Age structure. The African population is young and expanding, with over 25% of the population below the age of 15 years. In contrast, the White population is ageing and shrinking, with as much as 9.4% of the population aged 65 years or older. The percentage of the population in the economically active ages is smaller for the African and Coloured than for the White and Indian groups.

Infant mortality. The rate of infant mortality is highest for the African population (48 per thousand) and lowest for Whites (7 per thousand).

Life expectancy. The national average is 62 is for men and 68 for women. It ranges however, from 59 for Coloured males to 76 for White females.

The economy. South Africa is classified as a middle-income country by the World Bank, but the economy has declined severely over the last decade, with negative growth rates in 1991 and 1992. The economic growth rate in 1994 increased to 2.5%, still far from the 3.5% estimated by the International Monetary Fund necessary to reduce unemployment.

Income and poverty. Although all population groups experienced a moderate increase in real income over the past fifty years, the gap between rich and poor is great compared with many other

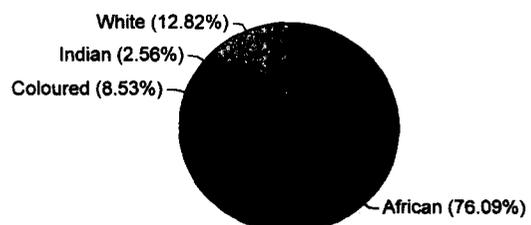


Fig. 1. Population groups. Source: Central Statistical Services, 1995.

developing countries of similar status. In 1991, White per capita incomes were more than 12 times than for Black people. However, income inequality within population groups has grown even faster, and is greatest among Africans, where the poorest 40% of Africans earned only 6.4% of income and the richest 10% earned 46.6%. In 1991, it was estimated that 17.3 million people and about half of all households lived below the minimum subsistence level. Two thirds of African households were estimated to live in poverty, compared with 6.7% of White households.

Employment and unemployment. Employment in the formal sector is an important guarantee of income, adequate food and access to other necessary services. Unemployment in the formal sector now stands at about 40% of the economically active population. Owing to high levels of unemployment and temporary contracts, many South Africans have been unable to make adequate provision for illness, injury or retirement. Government-provided Old Age Pensions and Disability Grants have become important sources of income for people living in poverty.

Access to land. Apartheid policies, together with agricultural policies which favoured large-scale agriculture, pushed millions of Africans off their land into impoverished reserves, homelands and townships. At present the White agricultural sector owns 88% of arable land in South Africa.

Education. Racial imbalances exist in education on every level, with African people most severely affected.

Housing. Urbanisation has been an important factor in determining the health of the population as well as the levels of urban violence. By 1985, about 57% of South Africa's population was urbanised—mainly in the major metropolitan areas. The population of the cities is predicted to double by the year 2010, creating an enormous challenge for planners of health, housing and other social services. The 1991 census showed that 9% of the population were living in shack settlements in urban areas, with inadequate provisions of basic facilities like safe water, sanitation, electricity and health services.

Health care services. The inequalities identified in the society are mirrored in the health sector. Almost three fifths (58%) of the total health budget was spent on private health services which serve approximately 20% of the population, mostly White and of higher income. The result is fewer health care resources for poorer people. Coupled with poor living conditions alluded to earlier, it also means less available health care for people with higher levels of IMR and general morbidity levels.

Although class/race inequalities overshadow other types of inequalities, of specific relevance to this paper are gender inequalities prevalent in South Africa. It is argued that gender generally, and in South Africa in particular, operates mainly to privilege men and to subordinate women. Gender

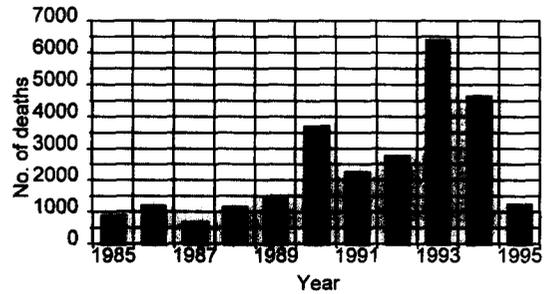


Fig. 2. Deaths by political violence 1985–1995. Source: Eagle G. Violence in South Africa: on the increase in the 1990s. *Critical Health* 41, 6, 1992. Human Rights Review, 1994 and 1995.

differences and inequalities in South Africa can be demonstrated at various levels, some of which are employment, control of reproduction, the law, education and sexuality [3].

Rapid and uncontrolled urbanisation in the Black population in particular, is an additional factor that compounds the total situation. It is associated with deteriorating health conditions in growing peri-urban and urban slums [15] and increasing levels of violence.

This is the broad background against which the various types of violence will be discussed and health consequences evaluated. The discussion on “the way forward” will take this into consideration.

Political violence

The phrase “political violence” is used here to mean acts of destruction that impact on power relations in society [16]. In South Africa it is a distinguishing feature of both state repression and resistance to the state.

The political events of 1990, which included the unbanning of political organisations, the release of Nelson Mandela and other political leaders and F.W. de Klerk's stated commitment to political change introduced a wave of great optimism across the country. “However, this dream of peace has been transformed into a nightmare as South Africa has moved into a period of unprecedented violence” [17]. Although most of the violence referred to in this quote, is “political violence”, this statement reflects (and still does) the situation with regard to other forms of violence as will be demonstrated further in this paper. Figure 2 summarises the magnitude of political violence in SA in the last 10 years.

It clearly indicates periods of extreme violence all over the country at specific points in time. This violence can be linked to the apartheid system and related political factors. However, as the world witnessed the miracle of “peaceful transformation” in South Africa after the democratic elections in 1994, the levels of political violence have dropped dramatically since then (Fig. 3).

With the exception of Kwazulu/Natal, direct

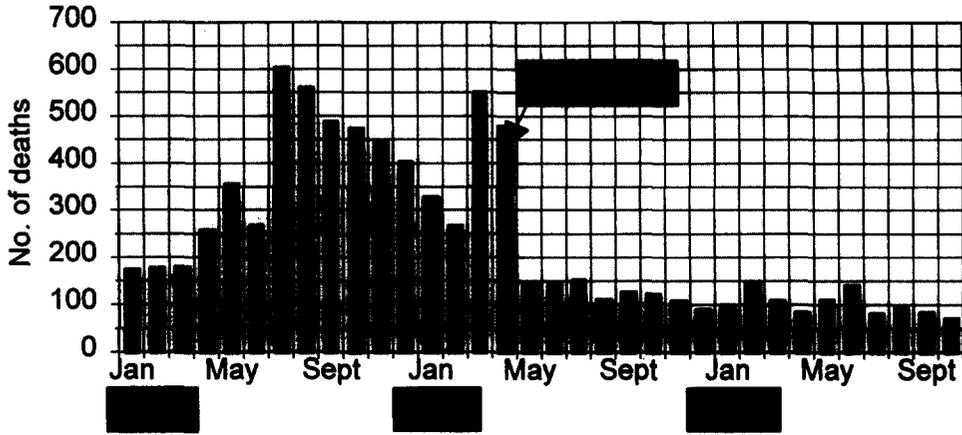


Fig. 3. Deaths by political violence. Source: *Human Rights Review*, 1994 and 1995.

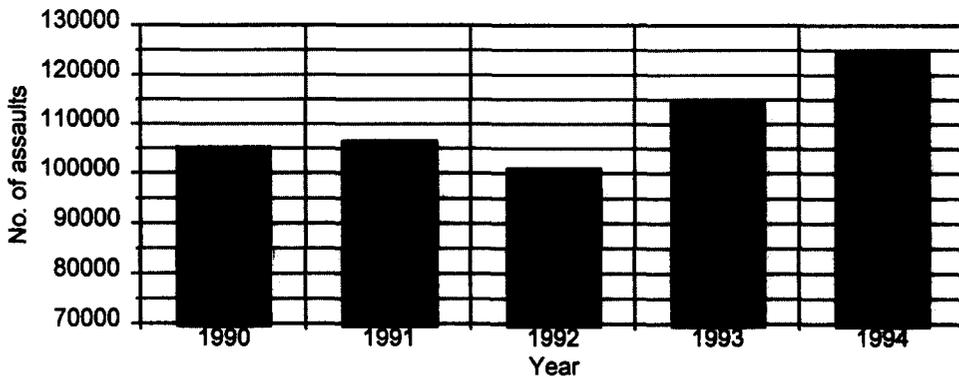


Fig. 4. Assault 1990-1994. Source: Shaw M. "Partners in Crime?" Crime, political transition and changing forms of policing control. Research Report no. 39. Centre for Policy Studies. p. 17, 1995.

political violence is no longer the main form of violence with which South Africa has had to deal. For this reason, and the fact that it raises a set of different matters to the main concerns of this paper, it will not be dealt with here in more detail. Nevertheless, this does not exclude the possibility that, if a wider framework for the analysis of violence is adopted, other forms of violence might be seen as rooted in the political system.

Violent crimes

South Africa is currently a particularly violent society. This is evident from the numerous scientific writings attempting to analyse its nature and causes [18] as well as the articles appearing daily in newspapers all over the country. "While violence and lawlessness are nothing new in South Africa, people of all classes and colours are being battered by the intensity of and increase in crime in the post-apartheid era" [19].

A study by the World Health Organisation [19], stated that the murder rate in South Africa is far higher than any other country in the world. In 1994, the murder rate was 53.5/100,000. Russia comes a

distant second with 30.4 and the USA only with 9.8 [20].

The magnitude of additional violent crimes is illustrated in the following figures of assault (Fig. 4), robbery (Fig. 5) and reported rape (Fig. 6).

Based on these figures, it is clear that incidents of violent crimes are high and on the increase. According to statistics released by the Nedcor Project on Crime, Violence and Investment [21], serious crime has risen by an estimated 30% in five years.

Car hijacking has become a major fear of every vehicle-owner. In 1994, 17,560 vehicles were hijacked. In the process, 36 people were killed and another 851 injured. Seventy-nine percent of carjacking victims were Black [19]. It seems that most of these cases (94%) involve the use of firearms [22]. These statistics are increasing [23], particularly in the province of Gauteng* [24]. According to the police, factors influencing car hijacking are: organised crime syndicates; availability of illegal firearms and ammunition; the socio-economic situation that prevails in the country, where people commit the

*This is the richest, most densely populated and urbanised province where Johannesburg is situated.

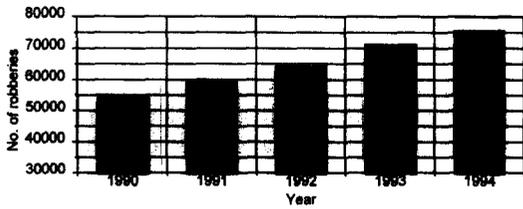


Fig. 5. Robbery 1990–1994. Source: Shaw M. "Partners in Crime?": Crime, political transition and changing forms of policing control. Research Report no. 39. Centre for Policy Studies. p. 17, 1995.

hijackings in order to obtain commodities and money to survive; drug transport and money laundering [23]. It is obvious that car hijacking is an immense problem in South Africa. Not only does it have a serious impact on the economy, but it is also a very traumatic experience for the victims and their relatives. The hijackers have very little concern for human life and will often shoot the victim without hesitating. The high and increasing rates as well as the violent nature of carjacking, associated with its unique form in South Africa, in that they occur "everywhere" and quite often in the vicinity of peoples' homes and/or in their driveways, have combined to make it into a "social problem". It has created unprecedented levels of fear among people as well as anger towards the government's inability to control it.

Violence related to gang warfare is rife in certain communities, particularly in the Cape Coloured community [25] and recently in Johannesburg as well [26]. There is little evidence, but it seems that "drug trafficking" plays a major role in the above, and based on popular predictions is bound to increase due to the opening up of the South African market to the global drug networks and its targeting as a prime location for "drug promotion".

A distinctive form of South African violence is so called "taxi violence". The "taxi industry" refers to a specific form of transport in "mini buses", which originated in the eighties to accommodate the need for efficient transport for "the masses". Since then it has developed into one of the biggest industries, where large sums of money are involved. The industry is plagued by industrial conflict, owing to fierce competition and attempts for economic survival, but, since it deals with a mode of transport used mainly by disadvantaged communities (poor Blacks and Coloureds) and quite often affects "innocent bystanders" it features as one of the significant forms of violence prevalent in South Africa. The police maintain that... "Conflict and violence within the taxi industry is one of the rapidly intensifying factors contributing to the level of

violence in South Africa" [23]. During the first half of 1995, a total of 426 incidents of taxi violence occurred in South Africa, which represents an increase of 68% from the corresponding figure in 1994.

According to the spatial data of the Cape Town Metropole, 60% of the homicides were concentrated in 10 "homicide areas" [27]. This can be likened to what has been termed "corridors of terror" with regard to some areas in some cities in the world, owing to the high rates of violent crime. However, the general impression one gets in South Africa is that the occurrence of violent crime transcends geographical and racial boundaries and in people's minds is "lurking in every corner".

The fact that the use of firearms is widespread in most of the crimes outlined, highlights the magnitude of the problem and increases the probability of serious or fatal injuries to the victims. According to statistics from the USA, firearm deaths occur over 90 times more frequently in the United States than in any industrialised country [28]. Although exact figures are not available, given the comparable high violence rates in South Africa, one can speculate about the significant contribution of firearms to the numbers of injuries and death. This places a greater emphasis on the need for a discussion about the control over illegal firearms in South Africa.

The effects of these levels of violence are enormous. There is a widespread belief among the public that law and order is in tatters, and some individuals and groups are willing to "take the law into their own hands" [29, 30]. Fears have been expressed that it might lead to "moral atrophy" [10, 29] and disorganisation of society*. Although local literature deals with attempts to explain crime and violence in the context of a society in transition [8, 31], it is beyond the scope of this paper.

The physical and emotional health consequences of the above are immense, as will be demonstrated further on in this paper.

Violence against women

The absence of comprehensive statistics makes a definitive statement on the prevalence of violence against women in South Africa difficult [32]. The numbers for reported rape as presented in Fig. 5,

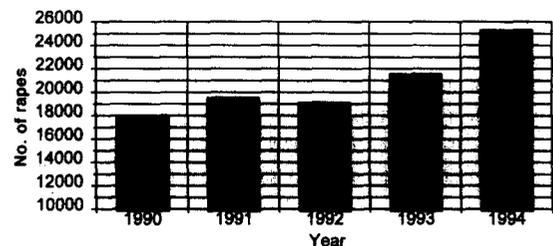


Fig. 6. Reported rape 1990–1994. Source: Shaw M. "Partners in Crime?": Crime, political transition and changing forms of policing control. Research Report no. 39. Centre for Policy Studies. p. 17, 1995.

*South Africa is a society in transition and as such, the levels of violence as well as the responses to it need to be analysed in this context.

†Rape in marriage was recognised as a crime in the eyes of the law only in 1995.

grossly underestimate the real magnitude of the problem. The police estimate that only 3 to 5% of rapes are reported [32]. If this is correct, the total number of rape cases is significantly higher than the available figures. According to Vogelman [33] "Rape in South Africa has reached epidemic proportions".

According to the Women's Health Project News [32], "It is generally accepted that violence against women occurs across all socio-economic and racial groups, and is both widespread and on the increase in South Africa". It demonstrates "one of the surest ways in which women of this country continue to be oppressed... in the level of violence which is directed at them specifically" [34]. It appears that the equality clause in the constitution, as well as changes in legislation and the increasing profile of powerful women, are not managing to halt the rise in the alarming statistics of violence against women.

The following quote from an article in a daily newspaper, entitled: Rape in SA: it's a case of "look closer to home"... "Crime on the streets is rampant, car hijackings are becoming everyday occurrences and the best place would appear to be behind locked doors in your home. If you are a woman that is not necessarily true" [35], highlights an additional aspect in this context, namely "domestic violence".

Domestic violence

"Because the family is the microcosm of society, the prevalence of violence in a particular society is invariably linked to high levels of domestic violence" [36].

The almost exclusive media focus on "political violence" in SA before 1994 and on "crime related violence" since, deflected attention away from the high levels of interpersonal violence [37]. However, at present there is considerable focus on domestic and family violence [35, 38, 39]. This is highly appropriate considering the complexity and impact of the issue. However, there is a lack of clarity with regard to the definitions assigned to concepts like "domestic", "family", "household", "violence" and "abuse" [40]. What seems to be important in this context, is the geographic-residential scene or "where" it happened as well as the socio-familial relationship between perpetrator and victim, i.e "who" was involved. This creates difficulties in capturing such detailed information in cases of trauma injuries. No official statistics exist in the case of "domestic violence" in South Africa. "Even when women complain to the police of assault at the hands of their partners, the authorities do not distinguish between these cases and complaints of assault generally" [41].

Although there are no comprehensive statistics, South African women of all races and income levels face abuse from their partners† according to evidence from various studies [41, 42].

Findings of a recent study commissioned by People Opposing Women Abuse (POWA) [43] echo those of earlier studies [37, 40, 44] in suggesting that women

are at greater risk of being murdered by those men known to them, than they are from strangers. The study found that every six days, at least one woman is killed by her partner. More than half of all women murdered are killed by a partner or male friend. "Given this risk, it is ironic (if not tragic) that women continue to be warned incessantly of stranger danger when intimate partners and acquaintances emerge as the greatest threat to their safety and security" [43] concludes the study.

There is no doubt that the health consequences of violence against women are a serious problem worldwide, as gender violence is a significant cause of female morbidity and mortality, and represents a hidden obstacle to economic and social development [44]. As the United Nations Fund for Women (UNIFEM) observed, "women cannot lend their labour or creative ideas fully if they are burdened with the physical and psychological scars of abuse" [45]. Similar sentiments are expressed in various studies [46, 47].

It is important to note, that as with other forms of violence, "violence against women" should be understood in relation to the broad ideological, social and political context in which it occurs. It is this context that determines its consequences as well as the community's and state's response [46].

Although it is beyond the scope of this paper, note needs to be made that "there is enough evidence to conclude that the home can be a very dangerous place and that individuals have more to fear from close members of their own families than from total strangers" [36]. This includes children [48, 49] as well as the elderly [50]. Both are hidden phenomena which have a consequential effect on health, and thus need to be mentioned in this context.

A headline in a popular weekend newspaper reflects the feeling "End of innocence: Health professionals estimate that one in every four South African children will suffer some form of abuse—from battery to sodomy and rape to neglect. Hidden abuse that shatters young lives" [51]. More accurate data reveal that during the period 1993–1994, officially reported child rape cases increased from 4,736 to 7,559 (59.6%), common assault cases from 2,364 to 3,246 (37.3%) and attempted murder from 175 to 213 (21.7%). However, according to government sources, the true extent of "violence against children" in South Africa is unknown, since there is no centralised data base or coordinated reporting system in place at the present time [52].

Impact of violence

"Violence has an overwhelming and decisive influence on individuals and society. It pervades all aspects of the environment, and no person remains untouched by violence. If not directly involved in violent manifestations, people are indirectly drawn in by the mass media, and are affected by the fallout resulting from violence. People either indirectly carry

Table 1. Major contributors to potential years of life lost (PYLL) in South Africa (1990) and their determinants

Cause	%PYLL < 65* yrs	Determinants	% Preventable**
Perinatal	20.3	Nutrition, tobacco	20
Trauma/violence	10.9	Alcohol, jobs, stability	20–85
Diarrhoea	10.8	Water, sanitation, case MX	85
Pneumonia/ARI	8.7	Domestic fuel, case MX	40
Tuberculosis	4.3	Overcrowding, case MX	65
Nutrition deficiency	3.4	Insufficient/inadequate food	75–95
Chronic disease	7.3	Hypertension, tobacco, diet	45
TOTAL	65.7		31.4

*Percentage potential years of life lost before 65 years. The upper limit of life expectancy is increasing worldwide. The cut-off of 65 is therefore conservative. **Percentage of PYLL preventable by applying currently available multi-sectoral interventions. Note that case management (for diarrhoea, pneumonia, TB) requirements here are met at clinic or community level. Source: Bradshaw D, Laubscher R, and Schneider M. MRC, 1995.

the financial cost, or experience the social and emotional stress of living in a violent environment or both" [10]. All forms of violence are disruptive, and detract from people's quality of life. Its impact contradicts the commonly-held values of personal, family and societal well being or health in its broadest definition* [3]. Based on the synopsis of data presented, what follows is a brief overview of some of the effects of violence on health or its health consequences.

Violence as presented in this paper is rooted in the social context and related to problems such as poverty, unemployment, poor housing, rapid urbanisation, gender inequalities, erosion of family life and "social decay" in a society in transition. "A sickness that has overcome this country is the blatant disregard for law and order, even under a democratic government. Respect for human life is virtually non-existent in many parts of South Africa. Intolerance and aggression affect all race groups and crime is rampant, thereby threatening the stability of this country" [53]. This quote was found in the introduction to "clinical trauma research" by Peter Bautz, Head of Trauma Unit, Groote Schuur Hospital, Cape Town. It clearly demonstrates the links between "society and health" and in particular the fact that the head of a trauma unit is concerned with other forms of "sickness in society", thus acknowledging the need to adopt the socio-environmental model as the dominant paradigm in the health services. This is reiterated by the comment below, which reflects the links mentioned. "The social health of a society must surely be reflected in the type and amount of injuries that present to a trauma unit. Peaceful societies see mainly motor vehicle related injuries, whereas violent or unstable societies more often manage injuries resulting from interpersonal violence" [53]. This is definitely true of South Africa.

Physical trauma

According to Trauma Review, "South Africa has a major trauma problem. More than 16% of our overall deaths occur as a result of trauma; the

comparable global figure presented by the World Health Organisation is 5.2%" [54].

Data from the first and latest South African Health Review [14] are presented in Table 1.

These data clearly indicate the role violence plays in health in South Africa. In particular its relatively high contribution to potential years of life lost (PYLL). Trauma is the major cause of lost years of life owing to premature deaths between 1 and 65 years. Of the 2,43 million man years lost this way during 1984 in SA the major cause was "non-natural deaths" (36.02%) of which more than half were violence related [54]. The impact is clear: trauma is unparalleled by any of the other major disease group as a cause of potential and actual person power loss. However, death analyses provide an inadequate view of the impact of trauma on society and the economy. Temporary and permanent disability in non-fatally injured victims also play a major role in the final analysis of consequences and costs of violence. In the USA it is estimated that every one trauma death is accompanied by a further two people surviving but never returning to the open labour market. Although no South African national data is available, there are indirect indications that a comparable situation might exist here [55, 56]. Accurate comprehensive regional data for the Cape Metropole indicate that 47.20% of all injured people are employed; of the 117,124 employed people injured annually, 75.7% lose time from work; 49.5% lose more than 1 day but less than 1 week while 16.2% lose between 1 and 3 weeks and 2.5% are disabled for more than 6 weeks. These data indicate an annual manpower loss of the order of 3,685 working years owing to non-fatal injuries in one metropole [56]. The actual social and economic disruption goes even further as housewives, students, scholars and others comprise the remaining 52.8% of patients. Many of them could not perform their daily duties and require others to care for them at home.

Considering the South African social structure it is interesting to note the proportional external cause mortality rates for different age and population groups for various external causes 1984–1986 [14]. Proportional mortality from assault is highest among Africans (11.3%), compared to Whites (7.5%), Coloureds (9.3%), and Indian (6.3%) for ages 10–14.

*The WHO definition which states that... "Health is a state of complete physical, mental and social well being, and not merely the absence of disease and infirmity".

The figures are more remarkable for the ages 15–19: African 44.1%, Whites 5.9%, Coloureds 47.1% and Indians 14.4%.

As alluded to earlier, injury surveillance in SA is in crisis, the data is incomplete and fragmented. Against this background of an ailing surveillance system, a study of “A Profile of Violence and Injury Mortality in Cape Town Metropole 1994” was conducted in “order to explore the possibilities of establishing a mechanism to capture the injury mortality data for the Metropolitan area of Cape Town” [27].

Tables 2, 3 and 4 reveal some of the data collected in the above study and its relevance pointed out.

It is clear that homicide, assault and legal intervention rank high as a cause of death for Cape Town’s Metropolitan population as a whole, but an examination of the differential distribution among the different “population groups” sheds additional light on this issue. It is the main cause of death for the Black population, second for the Coloured and only 9th for the White population.

Homicide mortality rates are particularly high in Cape Town when compared to industrialised nations. It is 67.7 (over 100,000) compared with the USA baseline rate of 9. Table 3 translates this rate into PYLL and illustrates that homicide accounts for over 50% of PYLL owing to injury.

The highest incidence of homicide has already been associated with the Coloured and Black populations. An examination of the racial and gender composition of homicide by age [27] reveals that young Black and Coloured males between the ages of 15 and 34 make up 74.4% and 68.1% of all homicides for their respective groups. This is consistent with evidence from the USA where assault has become the leading cause of death in some demographic and ethnic groups, for example in young black American males [57]. Among Whites, it is older males between the ages of 35 and 54 who account for 49.1% of White male homicide. A notable feature of White homicide is that elderly women (over 75) account for 30.8% of female homicide, whereas among the Coloured population there is a higher incidence of homicide for the ages 25 to 34, which accounts for 43.2% of female homicide.

Table 4 provides a more detailed account of the various causes of death owing to homicide and demonstrates the role sharp force and firearms play in it.

Previous data originating from Cape Town [58] concentrated on the different characteristics of gunshot patients in Groote Schuur Hospital (Fig. 7).

It once again makes the point that Black or Coloured males between the ages of 15–29 constitute the majority of patients with gunshot injuries. The main cause of injury in Groote Schuur Hospital gunshot patients is interpersonal violence (69.7%), law enforcement follows with 15.9% and taxi war with 6.4% [58].

Table 2. Main causes of death (ranked) in the Cape Town Metropole (1994) by race*

Rank	All races			Black			Coloured			White		
	Other cardiovascular system	Homicide, assault, legal intervention	Homicide, assault, legal intervention	Homicide, assault, legal intervention	Motor vehicle accidents	Neoplasm	Other cardiovascular system	Homicide, assault, legal intervention	Neoplasm	Other cardiovascular system	Neoplasm	Other cardiovascular system
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

*This table is based on unpublished composite projections from data provided by the various local authorities. The table provides a ranking of the top ten causes of death. No specific inferences can be drawn from this table owing to the problems with the collecting, reporting, and accuracy of cause of death information. Source: Lerer L. B. Matzopoulos R. and Bradshaw D. A. Profile of Violence and Injury: Mortality in the Cape Town Metropole 1994. South African Medical Research Council, Tygerberg, 1995, p. 7.

Table 3. Potential years of life lost (PYLL)* in the Cape Town Metropole (1994) by cause of death

Cause of death	PYLL	% of all PYLL owing to injury	% of all PYLL
Homicide	65732	50.6	23.5
Suicide	8396	6.5	3
Transport accidents	36662	28.2	13.1
Fire	10570	8.1	3.8
Drownings	3664	2.8	1.3
All injuries	129908	100	46.4

*PYLL utilised the differences in the age distribution of deaths and is calculated by totalling the number of years that each death is 'premature' (i.e. The years that each death occurs before the age of 65) (Katzenellenbogen *et al.*, 1991). Source: Lerer L. B. Matzopoulos R. and Bradshaw D. A. Profile of Violence and Injury: Mortality in the Cape Town Metropole 1994. South African Medical Research Council, Tygerberg, 1995. p. 19.

An analysis of the reasons given by the victims for the attack (Fig. 8) points to the fact that quarrels accounted for more than half of the attacks. This might indicate a pattern of "violent conflict resolution" in interpersonal relationships and point towards a possible explanation of these high rates. Additional points are raised by the information that more than 70% of fatal violent trauma was associated with an alcohol level of more 0.08 g per 100 ml, and nearly 42% of trauma occurs on Saturdays and Sundays [59]. This points in the direction of explanatory models of violence as related to life style.

According to the Cape Metropolitan Study [27], homicide accounted for 19.2% of non-natural mortality among the elderly, with blunt force being the most common cause of death (34.0%). This was most evident in the 75 years and older age category, where this form of homicide accounted for 45% of homicide deaths. Sharp force was also a common cause of death, accounting for 30.2% of all homicides.

A study of "non fatal injuries" carried out in the Johannesburg magisterial district (which included Soweto) in 1990 presents data which is consistent with some of the above [8]. Males, most of whom were aged 20–24 years, constituted 83.9% of all victims of violence, and were most often attacked on the streets. The majority of females were attacked at home by a spouse or lover, and most incidents occurred between dusk and midnight on weekends. The analysis of the results of this study by racial classification showed dramatic differences. The incidence among Coloureds was 2.5 times that among Blacks, which in turn was approximately 3.5 times as great as the incidence among Indian and Whites.

In addition, this study [8] examined the victim–aggressor relationship, which sheds some light with regard to the nature of interpersonal violence in the different communities. Male victims were most often attacked by strangers, who accounted for 67.2% of attacks on Whites in comparison to approximately 32.9% of other male victims. However, only 3.0% of the White males were attacked by people known by sight to the victim as opposed to 17.8% of all males. Of all female victims, 37.9% were attacked by spouses and lovers. Strangers, people known by sight to the victims and friends accounted for 31.7% of the attacks on female victims. With regard to the perceived motive for the attack, the study found that most male victims (23.7%) assumed the motive for attack to have been robbery, whereas most female victims (43.1%) attributed the attacks to arguments. Among females, 2.8% of Blacks and 25% of Whites were injured during rapes. Forty percent of all male victims and 53.5% of female victims thought that their aggressors were intoxicated [8].

The data presented in this section as well as other studies [6, 7] illustrate that the health consequences of violence in South Africa are inextricably linked to the wider social structure. It raises issues such as race, gender and age and their significance in this context.

"Trauma has already established itself as our number one community health problem" [55]. "The number of trauma patients and the treatment facilities required are vast" [54]. Nevertheless, given the state of data collection in South Africa as discussed earlier it was impossible to get estimated figures for the cost of treatment, actual cost of a bed in hospital, as well as long term consequences. These would include lost working hours and disability, productivity as well as "lost lives" or PYLL (which

Table 4. Main causes of non-natural mortality for adolescents and young adults in the Cape Town Metropole (1994) by age

Cause of death*	Age in years				Total
	15–19	20–24	25–29	30–34	
Blunt force	10	26	38	31	105
Strangulation	1	3	3	3	10
Firearms	83	113	87	69	352
Sharp force	91	223	205	164	683
Homicide total	189	376	358	284	1207
All causes	274	613	621	536	2044

*Total represents all-cause mortality for major categories Source: Lerer L. B. Matzopoulos R. and Bradshaw D. A. Profile of Violence and Injury: Mortality in the Cape Town Metropole 1994. South African Medical Research Council, Tygerberg, 1995. p. 36.

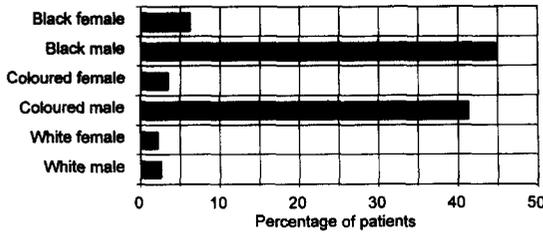


Fig. 7. Race and Gender of GSH Gunshot Patients. Source: Peden M. Gunshot injuries in Cape Town. *Trauma Review* 3, 4, September 1995.

was partially dealt with earlier). Data from the USA indicate that the estimated cost of gunshot trauma is \$14.4 billion per year, of which 86% is borne by taxpayers. The estimated cost including loss of income from gunshot wounds is often \$15 000 to \$20 000 per person [60]. There is no reason to assume that these costs would be per capita much lower in South Africa and once consideration has been taken of the full magnitude of trauma in SA, the final outcome would amount to a relatively higher cost.

A major dimension that needs to be added in this context is the inadequacy of the health care services in South Africa [3] to manage existing health problems and definitely not being in a position to bear these additional costs and cope with the need for extra resources.

Emotional trauma

“The true catastrophe surrounding violence in our country, is that we have become so accustomed to 50 + people dying every day as a result of ‘ordinary’ interpersonal violence, that it goes largely unnoticed” [59]. This quote is an unfortunate reflection on the “mental state” of the nation. The reality, however, is that violence and its health consequence are felt by all and have far reaching repercussions on the lives of millions of South Africans, directly or indirectly touched by it.

According to Hoffman and McKendrick “violence can injure and destroy... violence can restrict

lifestyles... violence evokes fear... violence damages relationships... violence dehumanizes... violence alienates... violence causes psychological disruption” [10], it does all this in the South African context, but it is beyond the scope of this paper to discuss it separately.

Against the background of the high rates of violence and its associated physical trauma cases as outlined above, it is indisputable and understandable that high levels of emotional trauma will follow. It appears that even in violent crimes where injuries were minor, but the situation was perceived as life threatening by the victim/survivor, the attack tends to leave the same type of emotional and psychological scars as after an extremely violent attack [61]. This is the victim trauma syndrome (VTS), which includes acute physical symptoms like nausea, fainting, diarrhoea, vomiting and breathing difficulties, as well post traumatic stress disorder (PTSD).

Although psychological morbidity, including post-traumatic stress (PTSD) disorder, is a significant problem after assault, the rates, nature and duration of upset remain unclear [57]. The Centre for the Study of Violence and Reconciliation at the University of the Witwatersrand, Johannesburg, is operating a special “Trauma Clinic” to provide psychological counselling to direct or indirect victims of violence and their families. The service is provided free of charge and is offered mostly by volunteer counsellors. In 1995 they have dealt with approximately 70 adults per month and 95 children have been seen throughout the year, all of whom have been victims of violence or have witnessed acts of violence. A similar centre operates in Cape Town. Note should be taken that these figures represent only the people who have access to the information about the centre as well as the financial resources to travel to the city, where the centre is situated. Mary Robertson, Clinical supervisor of the Trauma Clinic estimates that many more people, particularly in the traditionally Black residential areas, are in need of treatment, but have no access to it and therefore are left untreated*. Victims of violence in need of psychological counselling, who can afford to pay for their treatment are seen by private counsellors and

*The data were provided during a telephonic interview.

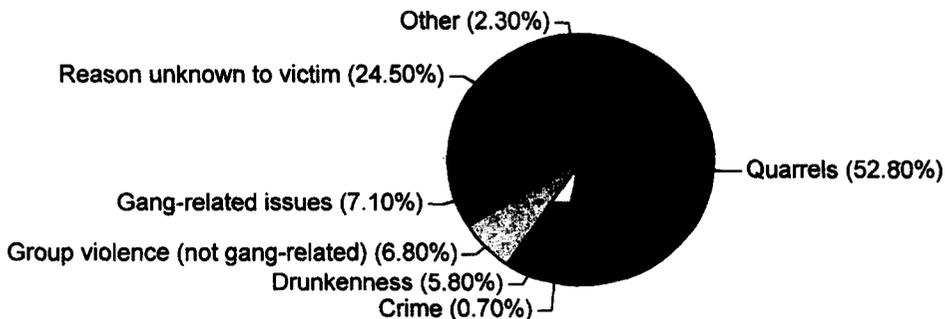


Fig. 8. Reasons for attack (given by victims). Source: Strydom M. Repetitive assaults: Groote Schuur Hospital Assault Study. *Trauma Review* 1, 4, August 1993.

these figures are unavailable. However, informal conversations point to a perception of an increase in numbers of patients in need of professional help owing to emotional trauma experienced from violence.

It seems that South Africa is beginning to develop unique expertise in this field owing to its extensive experience*. An interesting development is the establishment of the "world's first counselling centre for hijack victims" [62] by the department of psychology at the Rand Afrikaans University in Johannesburg. This Trauma Clinic deals with car hijacking victims and their families. In the first month since its opening they have seen 68 patients, most of them suffering from PTSD manifesting itself in the form of as nightmares, flashbacks, phobias, anxieties and gradual withdrawal from society†.

As is the case with physical trauma, exact figures of the cost involved in the treatment of these emotional trauma cases are not available. In order to estimate the cost, it is sufficient to say that each patient requires continuous care which often includes medication, for a period of between 3 months to a year, and sometimes for longer. The value of a single consultation in the private sector is approximately \$20 and the cost of medication required much higher. If one had to calculate the missing figures, there is no doubt that the direct cost involved is high. This cost is augmented by the fact that loss of productive time, family breakdowns and other factors need to be added to the equation. It is important to note that the existing health services particularly in the public sector are not equipped to cope with the emotional trauma experienced by the population owing to the levels of violence‡.

It seems that the effects of violence in South Africa are wider than the estimations made possible by mathematical calculations. Some experts are convinced that "South Africa is well on the way to a social breakdown" [62]. The situation is producing traumatised individuals, which through "verbal mediation" increase the cycle of stress.

There is no doubt, judging by the numbers of newspaper articles dealing with violence, the intensity of protest against the government's failure to control it and the amount of time devoted to it in public and private debate, that it is currently one of the major concerns of the South African society in transition. One can state with confidence that an indication of

the seriousness of the problem is that it created an atmosphere of "mass fear", which is becoming a feature of "life in South Africa" as illustrated at dinner table talks, waiting rooms of psychologists, psychiatrists, social workers and divorce lawyers. An illustration of the above is the recent publication of a book entitled "The South African Nightmare: Hijackings, Burglaries and Serious Crime", in which the author gives tips on how to survive in South Africa [63].

The way forward

The general paradigm of the Psycho-Socio-Environmental model as presented in the introduction to this paper [3] guides the discussion on "the way forward". Corresponding to the model, the role of all elements playing a part in violence and its health consequences must be considered, if a serious attempt is to be made to improve the situation and adequately cope with the outcomes. Theoretically speaking this would include the ramification of all "societal ills" which produce violence in the first place and therefore it would be inappropriate for this paper's brief to suggest a "way forward".

A useful framework for the analysis of the target areas which need to be addressed in order to reduce violence is provided in the different levels of prevention [2].

Primary prevention, comprises measures which may promote or enhance non-violent means of conflict resolution or prevent violence from occurring. The relevant range of factors to be considered here are those contributing to "structural violence", which affects all aspects of people's lives. However, if prevention programmes are to be effective, they must not focus on structural and ecological factors in isolation from historically determined socio-political and psychological variables [8].

In the South African context, the social inequalities based on race and gender as well as use of "legal violence" by the state and educational institutions need to be reduced. This would have to include improvements in living conditions, employment and educational levels as well as restrictions on alcohol consumption and the availability of weapons [64]. There is wide agreement that the use of firearms needs to be further curtailed and controlled [65, 66].

A greater awareness, legal reform, accountability and publicity are one part of a strategy to reduce violence. An additional major part is that of education in two forms: "The first is education for living, so that people are prepared with the understanding and skills to manage conflict and stress on interpersonal level through non-violent means, while the second is the education of key agents in society so that they recognize violence for the harmful, damaging behaviour that it is, and respond to it appropriately" [2].

Secondary prevention is concerned with the early detection and identification of violence as well as

*A South African Model for the treatment of violence victims was developed in the Trauma Clinic, The Centre for the Study of Violence and Reconciliation.

†The information was provided during a telephonic interview with Tia Hetz, Trauma Clinic, Department of Psychology, Rand Afrikaans University.

‡This was conveyed by Mary Robertson from the Centre for the Study of Violence and Reconciliation as well as by David Reid, Medical Casualties, Johannesburg, Hospital.

§Professor Eddie Wolf, Head of Trauma Clinic, Department of Psychology, RAU, quoted in Ref. [62].

measures to “nip it in the bud” so as to prevent its growth and spread [2]. The major areas to be targeted here fall in the context of the role of police [67] and the judicial system [68] and include: early identification and appropriate investigation of abuse, control of alcohol and drug use, firearms, as well as timeous response to break the cycle of violence and appropriate legislation. This stage should also focus on those at risk and the institution of appropriate forms of support [64].

Tertiary prevention involves rehabilitation of both victims and the perpetrators of violence. It includes a major health service intervention to deal with the physical as well as psychological morbidity associated with experiences of violence. As alluded to earlier, South Africa is presently lacking the necessary resources to deal specifically with the therapeutic and rehabilitative needs of victims as well as perpetrators of violence. This means that additional resources need to be directed towards increasing the capacity to cope with these needs.

The role of health care services

Against the background of rapid population growth, urbanisation, the state of the economy and current unemployment, the already high numbers of trauma cases and per capita incidence of trauma will rise rather than decline in the next decade [54]. We need innovative prevention and treatment strategies, which will utilise available resources optimally, plan progressively and implement wisely.

Violence is proportionally much more common in South Africa than in the USA where it has been declared a national research and intervention priority, to be addressed urgently by the Centers For Disease Control. This has not been the case in South Africa. Van der Spuy, Head of Medical Research Council, National Trauma Research Programme, argues that “At present nothing seriously competes with trauma for the position of ‘our foremost community health issue’. Community Health experts have tended to ignore the issue as being a surgical or crimino-legal phenomenon. Likewise it has not become an important primary health care issue. This will have to be rectified and Primary Health Care centres will have to treat basic trauma efficiently if they are to have any relevance to the needs of the communities in which they serve” ([55], p. 9).

Taking a historical perspective, health services in South Africa are not unfamiliar with the problem of violence, in fact, according to Sydney Kark*³ there was a time when the violence of poverty was endemic, but nobody really cared. Domestic violence was exacerbated by the “migrant labour” and police brutality was commonplace [64]. As to the place of primary care in areas of chronic violence, he was

explicit in stressing the role of “a high standard of preventive and curative health which perceived by a community as relevant and respective responsive to its needs, could transcend the violence” [69].

Adopting the Public Health Model, which rests on the principles of the Primary Health Care Approach (PHCA) and the socio-environmental model of health and disease [4], as suggested by many [64], [70, 71], would mean that the following steps need to be taken: definition of the problem, identification of causes, development and testing of interventions, implementation of interventions and measuring of prevention effectiveness.

This calls for intersectoral collaboration between the police, health services and other relevant agencies. Such collaboration was called for by the police Commissioner who said “The medical profession should be drawn into crime-combatting structures” [72], which would include the establishment of intensive communication networks as well as additional training of health personnel. Following the above model real community mobilisation has to take place in order to involve the community in all the above stages. There is some indication that this is beginning to happen with the creation of community police forums (CPF) [73] Business Initiative Against Corruption And Crime (BIACC) [21] as well as many others [20].

The necessity for a National Health Information System (as well as other information systems) as a foundation for policy making becomes apparent. This has been recognised by the Reconstruction and Development Programme (RDP) and is in a process of development. As stated by Lerer [72] “Information on violence and injury and their health impacts, should form the foundation of a multi-sectoral collaboration to create a safe and healthy community”.

What becomes clear is that a wide range of issues should be put on the agenda for further research, intervention and training programmes. There is no doubt that the prevention of urban violence as well as dealing with its consequences are daunting tasks [74] and require imaginative, creative and comprehensive approaches based on intersectoral collaboration in combination with community mobilisation and empowerment.

CONCLUSION

The conclusion reached in the aftermath of the riots in Los Angeles ([60], p. 2836), was that “Although the challenge to correct social ills when they have reached prevailing proportions...seems overwhelming, physicians and health care workers must nonetheless become active participants in the search for improved methods and creative concepts to address these problems”. To strengthen their case they quote Virchow, “If medicine is to fulfil the great task, she must enter political and social life” for

*Who was involved in public health in SA in the 40s and 50s and is regarded as a legendary figure in community based primary health care.

“medical reform which is a necessity should reflect a reform of both science and society, from which will come the reconstruction, responsibility, and reform of men” ([60], p. 2837).

Traditionally, violence has been treated as a problem for social and behavioural scientists and for practitioners such as lawyers and police officers [57]. This is changing owing to the magnitude of the health consequences associated with violence as demonstrated in this paper. At the same time there is a realisation that public health approaches might be useful in the reduction of injury brought about by assault, since public health focuses on victims and consequences in the relevant social context. As such this paper took this broad approach advocated by the “New Public Health” [4], in that violence needs to be understood in the wider societal context and has to be dealt with in the broadest terms possible. This lends itself to a new collaboration between social scientists, law enforcement agencies and the health sector.

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