# African Safety Promotion

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Helmet use and associated factors among motorcyclists in the Association of Southeast Asian Nations: Prevalence and effect of interventions

Karl Peltzer & Supa Pengpid

CONFERENCE REPORT

XXI International Safe Communities Conference: “Prevention to build safer environments”, Mérida, Yucatán, Mexico

Ghouwa Ismail

CALL FOR PAPERS

Youth, violence and equality: Local-global perspectives
ABSTRACT

Road traffic injuries pose a serious public health problem worldwide, especially in low-income countries. The aim of this study was to determine the effectiveness of a post-license road safety education intervention programme in terms of increased knowledge and self-reported behaviour among commercial minibus drivers in Lagos, Nigeria. This was a quasi-experimental study conducted in three phases. Participating motor parks (selected by simple random sampling) were assigned to either the intervention or control group. All eligible minibus drivers were included with no matching. Data analysis was done with Epi-info version 3.5.1. Comparison was done in terms of group driver education versus no education, and pre- versus post-intervention. Out of an estimated 500 male drivers, 407 participated in the study. Most had some form of formal education. For both groups, pre-intervention knowledge scores were poor but improved significantly post-intervention in the intervention group. None of the drivers in the intervention group had good scores but this increased to 66.1% post-intervention. Their mean score
increased from 34.4 ± 9.1 to 72.3 ± 10.2. Adherence to speed limits did not improve. The control group showed no significant changes. Post-license road safety education significantly improved knowledge but not self-reported adherence to speed limits. Similar, sustainable programmes should be offered to improve commercial drivers’ poor knowledge. Further studies are needed to determine deterrent factors to behaviour change.

**Keywords:** road safety, intervention, commercial drivers, Nigeria

**INTRODUCTION**

Road traffic injury (RTI) is a world-wide problem with millions of injuries and deaths reported. It is projected that by 2020, RTIs will become the third leading cause of disability-adjusted life years (DALYs) lost, up from its ninth position in 1990, and by 2030 will be the fifth leading cause of death (WHO, 2011). Globally, low and middle income countries (LMICs) account for 91.8% of DALYs lost to RTIs (Peden et al., 2004). The morbidity and mortality from RTIs in sub-Saharan Africa is rising steadily with equally devastating economic implications (Federal Road Safety Commission, FRSC, 2011; Tarimo, 2012). The risk of dying as a result of a road traffic collision is highest in the African region at 24.1/100 000 population (the global rate is 18/100 000). Nigeria and South Africa have the highest road traffic death rates (33.7 and 31.9/100 000 respectively). No countries have comprehensive road safety laws on five key risk factors: drinking and driving, speeding, and failing to use motorcycle helmets, seat-belts, and child restraints (WHO, 2013). Africa’s roads have therefore been dubbed the “deadliest” in the world and in order to make substantial road safety gains, the focus over this decade should be on providing safe public transportation (Peden, Kobusingye & Monono, 2013).

According to FRSC 2011 reports, between 2007 and 2010 there was a yearly average of 1,457 cases and a monthly average of 121 crashes involving buses on Nigerian roads. The figure increased each year by between 5–37%. In the same period, 33,374 people were killed or injured. Lagos State contributed significantly to these figures (FRSC, 2011). Disobeying road signals was one of the risk-taking actions reported among vehicle (motorcycle) users (Clarke, Ward, Bartle & Truman, 2004) and several researchers in Nigeria recommend safety education interventions following observations of poor knowledge and compliance among motorcyclists (Adogu & Ilika, 2006; Amoran, Eme, Giwa & Gbolahan, 2006; Oginni, Ugboko & Adewole, 2007). In Zaria (Northeast Nigeria), almost 42% of commercial motorcyclists were not even aware of the existence of the Highway Code (Arosanyin, Olowosulu & Oyeyemi, 2013). Other areas of road safety such as child car safety practices were equally observed to be poor (Olufunlayo, Odeyemi, Ogunnowo, Onajole & Oyediran, 2011).
Over three decades ago, the “systems approach” (the Haddon matrix) to road safety was developed by William Haddon Jr. and has been successfully applied (Haddon, 1968). He defined three phases of the time sequence of a crash event: pre-crash, crash and post-crash also taking into consideration the epidemiological triad. In the pre-crash/crash prevention phase, human factors such as information, attitudes, impairment and police enforcement play a major role. Enrichment of the Haddon model has become necessary in order to successfully control the RTI problem (Sleet & Lonero, 2002).

An emphasis on ecological models in public health is now advocated. The use of passive or structural strategies and active or behavioural strategies in the control of RTIs have been recognised. The active strategies applied in this study were to educate commercial bus drivers on road safety measures and encourage them to comply for the benefit of all road users. This may then result in increasing the social and political will, and other actions necessary to address structural barriers to maintaining the desired behaviour change (Gielen & Girasek, 2001). Road safety education is not expected to solve all RTI problems but forms an important component of the health promotion framework for injury prevention. This is especially useful at the personal level (Glanz & Rimer, 1995; Green & Kreuter, 1999).

RTIs, like other types of injuries, are largely preventable thus making them amenable to behaviour change. The application of behaviour-change methods to injury prevention and other behaviour has been extensively discussed by many researchers (Gielen & Sleet, 2003; Rosenstock, Strecher & Becker, 1988) and the efficacy of various methods of injury prevention have been reported (Collard, Chinapaw, Verhagen, Bakker & van Mechelen, 2010; Eime, Finch, Wolfe, Owen & McCarty, 2005; Erkoboni, Cao Rouxiang & Winston, 2010).

Minibus driver improvement programmes exist in some high-income countries (HICs). In Australia, MiDAS is the Minibus Driver Awareness Scheme organised by the Community Transport Association which promotes a nationally recognised standard for the assessment and training of minibus drivers. It is a membership-based scheme that has been designed to enhance minibus driving standards and promote the safer operation of minibuses (Wundersitz & Hutchinson, 2006). In the United Kingdom, there is also a minibus driver awareness scheme (Walsall Council, 2009). In continued efforts to improve driving safety through education, several educational programmes include video programmes (van Ranst, Silverstein & Gottlieb, 2005), classroom modules (Marottoli et al., 2007), individual counselling (Stalvey & Owsley, 2003) and home-based CD-ROMs or workbooks (Dickerson et al., 2007). Much attention is also paid to younger and older drivers in high income countries. Not much has been reported from LMICs countries regarding commercial drivers. In a systematic review of post-license driver education for the reduction of RTCs,
only studies from HICs were included (Ker et al., 2005) Similarly, in a systematic review of safety education of pedestrians for injury prevention, none of the RCTs reviewed were conducted in LMICs (Duperrex, Bunn & Roberts, 2002).

There is no evidence that post-license driver education is effective in preventing road traffic injuries or crashes (Ker et al., 2005). For younger people, school-based driver education in schools and colleges leads to earlier licensing but not to a reduction in RTI involvement (Roberts, Kwan & Cochrane Injuries Group Driver Education Reviewers, 2001). Among older drivers, there is strong evidence that education combined with on-road training improves driving performance and moderate evidence that it improves knowledge, although educational intervention curricula alone are not effective in reducing crashes. The reviewers conclude that the effectiveness of retraining aimed at older drivers is sufficiently encouraging to merit assertive health promotion actions regarding intervention and programme planning (Korner-Bitensky, Kua, von Zweck & Van Benthem, 2009).

In Nigeria, there is a paucity of data on drivers’ educational intervention programmes. A similar programme to the current project was conducted among motorcyclists in Uyo (South-South Nigeria) and it was found to improve their knowledge and self-reported compliance with traffic signs (Johnson et al., 2011). Some NGOs in the country such as the Prompt Assistance to Victims of Road Accidents (PATVORA) and the Arrive Alive Road Safety Initiative (AARSI) also conduct safety education. The effect on driver behaviour and the impact on RTI prevention are not being assessed and therefore there is no available information in this regard in the literature. The general quality of evidence on the effectiveness of these programmes is quite poor but can nevertheless be considered worthwhile when compared with the costs of deaths and injuries. Given the background of very poor road safety knowledge and practices, coupled with the fact that the FRSC does not have adequate resources and facilities to monitor speed levels of vehicles, it is important that drivers know and adhere to these limits.

In this decade of road safety, country-specific problems should be identified and specific interventions implemented to achieve set goals. Interventions like health education programmes, health campaigns on road safety practices amidst other measures will go a long way in the control of RTIs (Johnston, 1992). Commercial bus drivers constitute a key group in injury prevention and will benefit from post-license safety education. This study was therefore conducted to quantify the effectiveness of an educational intervention in terms of increased knowledge and self-reported behaviour among commercial minibus drivers in Lagos, Nigeria. Improving the knowledge of drivers serves as a valuable first step in improving their driving habits.
METHODS

STUDY AREA

Lagos is a densely populated state with over 10 million inhabitants. As the financial, commercial and industrial hub of the country, it has a high intercity traffic flow. Commercial motorcycles are very common as transport means within the metropolis, but for inter-city transportation, buses and minibuses are most often used. These vehicle types are highly implicated in RTIs in LMICs (Nantulya & Reich, 2002). These vehicles are usually re-structured to accommodate more passengers than what they were originally designed for. Moreover, in order to make more money, the drivers of these vehicles are more likely to exceed speed limits so as to shorten their transit time and carry more passengers, thereby increasing their daily income. There are 20 local government areas (LGAs) in the state.

STUDY DESIGN AND SAMPLING PROCEDURE

This was a quasi-experimental study conducted over eight months. Randomisation took place only in the group (motor park). The study was carried out in inter-city motor parks located within two predetermined LGAs of Lagos State, namely Kosofe and Mainland. Both are urban LGAs with a considerable number of large inter-city motor parks and busy markets which attract high inter-city traffic flow. Both were chosen so as to have a large pool of minibus drivers in one location because of the interventional nature of the study. From the list obtained from the Lagos state ministry of transportation, it was established that there were 12 registered motor parks in Kosofe, four of which were big inter-city parks. In Mainland, there were 19 registered motor parks, four of which were also big inter-city parks. The two LGAs were more than 300 km apart and thus the risk of cross-interference was minimised. Simple random sampling (simple ballot) was done to determine which LGA would be the experimental group receiving the intervention while the other served as a control. Kosofe was selected to be the intervention LGA while Lagos Mainland served as the control group. By simple random sampling (ballot), one of the major inter-city motor parks from each LGA was selected. This process was conducted by the principal researcher. The minimum sample size (per group) of 77 (Béderd et al., 2008) was estimated using the formula for the comparison of two independent groups (pre- and post-intervention). Since an estimated 250 registered minibus drivers operated from each park, there was no sampling and all of them were included in the study. There was no matching and outcome assessors were not blinded to group assignment. The results are generalisable to Lagos State.

INCLUSION AND EXCLUSION CRITERIA

Motor parks/garage: These were listed for selection if they were registered with the Lagos state ministry of transportation and had a minimum of 120 inter-city minibuses in operation.
Drivers: Consentng drivers were enlisted for inclusion if they were registered members of the motor park and used a 14–18 seater minibus as passenger-carrying vehicle.

DATA COLLECTION

Pre-tested, structured, interviewer-administered questionnaires were used for data collection. Information was collected on the drivers’ sociodemography, their knowledge of road signs, maximum speed limits on various road categories in Nigeria and adherence to speed limits. The road sign test was obtained from the office of the chief vehicle inspection officer (VIO), Alausa, Lagos State. The face-to-face interviews were conducted in the motor parks.

The study was conducted in three phases. During the first phase the pre-intervention (baseline) questionnaire was administered to respondents in their various parks. This was done simultaneously with both the intervention and control groups. Next the intervention was applied to the drivers in the experimental group. The intervention consisted of health and safety education talks on the following: Health burden of RTIs and the need for their prevention and control, the importance of VA testing and driving tests as prerequisites for a driver’s license; road signs and maximum speed limits (on various roads). The health talks were given at the hall within the park using enlarged pictures of the road signs and speed limits. The health education sessions were held on designated dates and times corresponding to their weekly meetings. There was one session per day and this was repeated every two weeks for two months, thus providing a total of four sessions, each lasting for about one hour. Large posters were placed at strategic points in the park. Leaflets containing information on the need for VA testing every six months, road signs and maximum speed limits were also distributed to the drivers to reinforce the message. Finally, the post-intervention questionnaire survey was administered three months after the conclusion of the intervention. This was done in both the intervention and control groups. This period was determined in order to test recall and allow for changes in practice. The drivers analysed post-intervention would have attended at least two sessions. The trial ended after completion of the post-intervention questionnaires. The control group was provided with the health education talks after completion of the questionnaires, using the same methods as in the intervention group. This was to ensure that all participants in the study would benefit from the information provided on road safety measures.

DATA ANALYSIS

Data was analysed with Epi-info 2008 version 3.5.1 and WinPepi statistical software. In the analysis the two groups were compared in terms of the education they received. Descriptive and inferential statistics viz chi square, Fisher’s exact tests were carried out at a significance
level of 5% (p ≤ 0,05). The respondents scored 1 point for each correct answer. The sum of the scores was equated to 100%. A score of 0–33,3% was considered poor, > 33,3 - ≤ 66,6% was fair, and > 66% was good. Due to the significant differences between the two groups, a stratified analysis was carried out to control for possible confounders on their knowledge such as age, educational level, professional driving experience and distance travelled daily. Odds ratio (OR) and overall estimate of OR, and the Mantel Haenszel chi square test (ORMH) were calculated and showed no confounders. Ethical approval was obtained from the Health Research and Ethics Committee of the Lagos University Teaching Hospital. Formal consent was duly obtained from the drivers prior to the interviews. Confidentiality was assured.

OUTCOME INDICATORS (PRE- AND POST-INTERVENTION)

- Proportion of drivers who had correct knowledge of the prerequisites for a driver's license (minimum age of 18 years, visual acuity and driving tests).
- Proportion of drivers who had adequate knowledge of road signs.
- Proportion of drivers who had adequate knowledge of maximum speed limits.
- Proportion of drivers who adhered to speed limits.

RESULTS

A total of 407 respondents were interviewed at baseline, 199 in the intervention group and 208 in the control group. Post-intervention, 377 respondents were interviewed, 186 in the intervention group and 199 in the control group. There was thus an overall attrition rate of 7,4%. In the intervention group, most of the drivers were between 40–49 years, followed by the 50–59 age groups. The lowest proportion was found in the age group 20–29 years. The mean age was 45,6 ± 10.1 years. For the control group, most of the drivers were also between the ages of 40–49 years (43,1%), followed by the 30–39 age group (31,3%). The lowest proportion was 60 years and above. The mean age for this group was 41,4 ± 11,1 years. The control group was significantly younger.

The majority of the drivers in both groups were married; 194 (97,5%) in the intervention group and 173 (83,2%) in the control group. A large proportion, 72 (36,2%) of the drivers in the intervention group had completed secondary school education, 46 (23,1%) primary school education, followed by 35 (17,6%) who had not completed their primary school education. For the control group, the largest proportion, 74 (34,6%) of the drivers also completed secondary school, 44 (21,2%) primary school, while 24 (11,5%) had no formal education. Nearly 60% (59,3%) of the drivers in the intervention group had been driving professionally for at least 16 years. For the control group, almost 40% had been driving...
professionally for that long. The largest proportion of them (control) had 6–10 years professional driving experience. The mean duration of professional driving was 19,18 ± 9,98 years for the intervention group and 15,86 ± 9,62 years for the control group.

After the stratified analysis, drivers’ age, educational level, professional driving experience and distance travelled daily were not found to be confounding variables. Drivers in the intervention group showed an improvement in their knowledge of pre-license requirements viz ≥ 18 years, visual acuity and driving tests. Pre-intervention, 58,3% of the drivers in the intervention group knew that a VA test should be done before licensing and 50,3% knew that the test needed to be repeated every six months thereafter. Post-intervention, their knowledge improved significantly by 21,7% and 40,6% respectively. Pre-intervention, only 24,6% of drivers in the intervention group correctly interpreted the road sign “Dangerous bend right”. This proportion increased significantly by nearly 40% post-intervention. Pre-intervention, only 4% of them knew their speed limit on expressways, but this significantly increased to 91,7% after the health education. The control group did not show significant changes in their knowledge of road signs and speed limits.

For the intervention group, 99% of the drivers had poor knowledge scores for maximum speed limits pre-intervention, but post-intervention, only 8,1% achieved poor scores. On their overall knowledge scores, none of the drivers in the intervention group had good scores but this increased to 66,1% post-intervention. Their mean score increased from 34,4 ± 9,1 to 72,3 ± 10,2 (38% increase). The improvements in knowledge scores on vision screening, road signs, speed limits and overall knowledge scores were statistically significant. For the control group, their mean score decreased from 36,0 ± 0,2 to 35,6 ± 0,4.

Overall, almost all the drivers in both the intervention (98,5%) and control (96,2%) groups demonstrated a positive attitude to road safety. They agreed that mandatory knowledge and adherence to all road signs and speed limits by all drivers were vital in injury prevention. For their practice (adherence to speed limit), 74,9% post-intervention as against 98,4% pre-intervention adhered to maximum speed limits in the intervention group.

DISCUSSION

The health education programme for these commercial drivers was effective in increasing their knowledge but had no effect on their self-reported behaviour. The extent to which the education improved road safety is unknown. It would take a larger health promotion framework to reduce road traffic injuries and death.
This can in part be compared to other documented driver education interventions among younger and older drivers. Higher crash rates observed in young newly licensed drivers informed a risk awareness and perception training programme. A computer-based program designed to teach these novice drivers to recognise risks early on was found to have a substantial effect on improving their awareness of hazards, both under simulator conditions and on the road, thus reducing their likelihood of RTIs (Fisher, Pollatsek & Pradhan, 2006).

Bédard et al. (2008) reported on a multisite, randomised controlled trial where participants in the intervention group received both in-class and on-road education. Knowledge of safe driving practices before and after the in-class education and on-road driving skills before and after the whole programme was measured. It was shown that participants’ knowledge improved significantly by 20% (from 61% of correct answers before the in-class education component to 81% afterwards, $p < 0.001$). Those in the control group were offered the education afterwards. This was a method also adapted in this study to ensure that the drivers in the control group would also benefit from the education (Bédard et al., 2008).

An educational curriculum was used by Owsley, Stalvey and Phillips (2003) on post-licence older drivers. Post-tests conducted six months later showed that visually-impaired older drivers at higher risk for crash involvement benefited from the educational intervention by reducing their driving exposure and increasing their avoidance of visually challenging driving situations (Owsley et al., 2003). In contrast to the current study, in Owsley’s study the time interval was longer and the participants were older and visually impaired, thereby causing a higher perception of risk. This situation would thus more likely motivate positive behaviour change. In yet another study among older drivers, an education programme consisting of classroom and on-road training aimed at common errors made was found to significantly enhance performance on knowledge (including road signs) and on-road tests. Similar to our study, road signs were part of the educational content in terms of which their knowledge improved (Marottoli et al., 2007).

A group of researchers recently published a proposal on the adaptation of the Knowledge Enhances Your Safety (KEYS) programme in Australia. They hypothesised that self-regulation could be optimised and have proposed an integrated programme consisting of a customised education programme about safe driving and alternative transportation which will then be evaluated in terms of its effectiveness on driving exposure and safety. Participants will be followed up for up to a year (Keay et al., 2013). The study is based on an individual intervention whereas our study was group-based. It has been found that no one form of education whether individual, correspondence or group, is substantially more effective than the other (Ker et al., 2003).
The Nigerian study on drivers’ educational intervention carried out in Uyo (South-Nigeria) compares well with the current study but differs in certain aspects. The safety education was group-based, presented through lectures, visual aids and interactive sessions. It was also evaluated three months later and found to be significantly effective in improving participants’ knowledge and self-reported compliance with traffic signs. Effect on subsequent accidents was not measured. They also used the intervention with motorcyclists in a smaller sample size and offered less content in the educational package. The study was conducted in a smaller and much less populated town with less busy roads than Lagos (Johnson & Adebayo, 2011).

Currently, road safety issues are not as well supported as other health issues of comparable magnitude. With better funding more studies such as these could be conducted to further determine participants’ involvement in RTIs and overall effect on road safety. Their improved knowledge and behaviour should also stimulate debate at political level and lead to positive policy changes. Other road safety issues include the fact that road maintenance is often limited to the repair of potholes and clearing drain pipes. Missing traffic signs and guardrails are usually not replaced. Moreover, strategic locations in the Southwest region lack important traffic signs (Sangowawa, Adebiyi, Faseru & Popoola, 2012).

Presently in Lagos state, traffic offenders apprehended by FRSC officials are given in-class lectures for an hour in addition to a fine to serve as a deterrent to further traffic violations. There is also the drivers’ re-certification programme for commercial drivers which takes place at the various centres of the Lagos state driving institutes. The effects of these measures are yet to be evaluated.

The drivers’ improved knowledge did not necessarily translate into following the speed limits. Thus, although the drivers have a better knowledge of speed limits, they still find it difficult to slow down to the legal limits. Pre-intervention, they thought the speed limits were higher, for example 120 km/h on the expressway. Besides this, changing individuals’ road behaviour will not easily be achieved with a few sessions of in-class contact. Interactive sessions revealed that they believed that driving at a speed of 90 km/h on the expressways would only make them easy targets for armed robbers and lengthen transit time to their destinations. This would negatively affect their daily income. In addition, they knew that their speed levels were not being monitored and so could get away with speeding.

Traffic regulations such as using seat belts are easily observed on the road and so drivers usually comply. Unfortunately, speeding is more difficult to monitor without special equipment. In Nigeria, sustained political will and commitment is required to regulate traffic speeds and achieve adherence to the speed limits. In the meantime, it may be worthwhile.
to educate drivers by means of behavioural change programmes in order to get them to follow best practices.

**STRENGTHS AND LIMITATIONS**

This road safety intervention is one of the few studies in Nigeria which has contributed to the body of knowledge on a key group in road safety matters. Minibuses are used commonly in passenger transport and yet the drivers and their habits are insufficiently researched. A multi-method approach was employed in the education. The road sign test was obtained from the driving testing authority, the Vehicle Inspection Office in Lagos state. This is thus a standardised test. Judging by the educational content, the intervention was successful in significantly improving the drivers’ initial poor knowledge of safety measures in the intervention group. At the conclusion of the project, the control group was also provided with this driver education, thus all the drivers benefitted from it. The intervention did not appear to have the desired effect on the drivers’ self-reported behaviour. Repeated sessions and other social, political and policy changes may be required to achieve this.

Due to cost issues and an inefficient reporting system, the outcome sought (adherence to speed limits) was self-reported and not verified. The study also did not measure outcomes in terms of traffic offences, accidents and accident injuries among respondents. The final impact on road safety is therefore unknown. It is noteworthy that in a systematic review of randomised controlled trials to quantify the effectiveness of post-license driver education in reducing road accidents, none of the trials were carried out in developing countries. Furthermore, funnel plots have indicated the presence of publication bias affecting the traffic offence and crash outcomes. This selection bias may have affected the results of the trials (Ker et al., 2003). The results of the study need to be interpreted with caution as there was no true randomisation of subjects. The interval between pre- and post-test was short, and should have been longer, say 6–12 months. Commercial drivers represent a highly mobile occupational group and so the original cohort used for the study was likely to change considerably after some time, and thus it was decided to conduct the post-intervention assessment after only three months.

**CONCLUSION**

The ROSI project had a significant effect on post-license commercial drivers’ knowledge of road safety measures. However, it failed to have the same effect on their adherence to speed limits. The subsequent effect of the project on injury prevention is unknown. Continuous education is advocated due to the low knowledge base among drivers who are already certified. Further, larger-scale studies should be conducted to measure offences, crashes and injury outcomes.
ACKNOWLEDGEMENTS

We thank the secretaries of the National Union of Road Transport Workers for their cooperation during the study and H. Toriola, the Lagos State chief vehicle inspection officer, for his assistance.

REFERENCES


Table 1: Socio-demographic Characteristics of Respondents

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<td>8</td>
<td>3,8</td>
<td></td>
</tr>
<tr>
<td>Prim. Sch. uncompleted</td>
<td>35</td>
<td>17,6</td>
<td>22</td>
<td>10,6</td>
<td></td>
</tr>
<tr>
<td>Prim. Sch. completed</td>
<td>46</td>
<td>23,1</td>
<td>44</td>
<td>21,2</td>
<td></td>
</tr>
<tr>
<td>Sec. Sch. uncompleted</td>
<td>25</td>
<td>12,6</td>
<td>20</td>
<td>9,6</td>
<td></td>
</tr>
<tr>
<td>Sec. Sch. completed</td>
<td>72</td>
<td>36,2</td>
<td>74</td>
<td>35,6</td>
<td></td>
</tr>
<tr>
<td>Post Secondary</td>
<td>16</td>
<td>8,0</td>
<td>16</td>
<td>7,7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td><strong>199</strong></td>
<td><strong>100</strong></td>
<td><strong>208</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Fisher’s exact p
Table 2: Effect of health education on drivers' knowledge of safety measures

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Intervention post (n = 186)</th>
<th>Intervention pre (n = 199)</th>
<th>p</th>
<th>Control post (n = 191)</th>
<th>Control pre (n = 208)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum age for license, vision screening and driving test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum age for obtaining DL</td>
<td>178(95.7)</td>
<td>91(45.7)</td>
<td>&lt; 0.001</td>
<td>120(62.8)</td>
<td>128(61.5)</td>
<td>0.79</td>
</tr>
<tr>
<td>VA should be done before DL</td>
<td>148(80.0)</td>
<td>116(58.3)</td>
<td>&lt; 0.001</td>
<td>133(69.6)</td>
<td>145(69.7)</td>
<td>0.99</td>
</tr>
<tr>
<td>VA test should be done every 6 months</td>
<td>169(90.9)</td>
<td>100(50.3)</td>
<td>&lt; 0.001</td>
<td>131(68.6)</td>
<td>143(68.8)</td>
<td>0.97</td>
</tr>
<tr>
<td>DT should be done before DL</td>
<td>186(100)</td>
<td>192(96.5)</td>
<td>&lt; 0.001</td>
<td>185(96.9)</td>
<td>202(97.1)</td>
<td>0.88</td>
</tr>
<tr>
<td>Road signs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narrow bridge</td>
<td>125(67.2)</td>
<td>70(35.2)</td>
<td>&lt; 0.001</td>
<td>115(60.2)</td>
<td>127(61.1)</td>
<td>0.86</td>
</tr>
<tr>
<td>Dangerous bend right</td>
<td>120(64.5)</td>
<td>49(24.6)</td>
<td>&lt; 0.001</td>
<td>53(27.8)</td>
<td>58(27.9)</td>
<td>0.98</td>
</tr>
<tr>
<td>Double dangerous bend first to right</td>
<td>117(62.9)</td>
<td>93(46.7)</td>
<td>&lt; 0.001</td>
<td>100(52.4)</td>
<td>104(50.0)</td>
<td>0.64</td>
</tr>
<tr>
<td>Railway crossing without gate</td>
<td>131(70.4)</td>
<td>85(42.7)</td>
<td>&lt; 0.001</td>
<td>41(21.5)</td>
<td>47(22.6)</td>
<td>0.79</td>
</tr>
<tr>
<td>Long grade dangerous hill</td>
<td>145(78.0)</td>
<td>55(27.6)</td>
<td>&lt; 0.001</td>
<td>74(38.7)</td>
<td>79(38.0)</td>
<td>0.88</td>
</tr>
<tr>
<td>Carriage way narrows</td>
<td>128(68.8)</td>
<td>54(27.1)</td>
<td>&lt; 0.001</td>
<td>17(8.9)</td>
<td>19(9.1)</td>
<td>0.94</td>
</tr>
<tr>
<td>Speed limit 80 km</td>
<td>179(96.2)</td>
<td>168(84.4)</td>
<td>&lt; 0.001</td>
<td>159(83.3)</td>
<td>161(77.4)</td>
<td>0.14</td>
</tr>
<tr>
<td>Stop at intersection</td>
<td>165(88.7)</td>
<td>138(69.3)</td>
<td>&lt; 0.001</td>
<td>163(85.3)</td>
<td>178(85.6)</td>
<td>0.95</td>
</tr>
<tr>
<td>Hospital</td>
<td>173(93.0)</td>
<td>167(83.9)</td>
<td>&lt; 0.001</td>
<td>155(81.2)</td>
<td>169(81.3)</td>
<td>0.98</td>
</tr>
<tr>
<td>Advance direction</td>
<td>96(51.6)</td>
<td>47(23.6)</td>
<td>&lt; 0.001</td>
<td>51(26.7)</td>
<td>55(26.4)</td>
<td>0.95</td>
</tr>
<tr>
<td>Speed limits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum speed limit in built-up areas</td>
<td>162(87.1)</td>
<td>9(4.5)</td>
<td>&lt; 0.001</td>
<td>8(4.2)</td>
<td>9(4.3)</td>
<td>0.95</td>
</tr>
<tr>
<td>Maximum speed limit on highways</td>
<td>142(76.3)</td>
<td>29(14.6)</td>
<td>&lt; 0.001</td>
<td>53(27.8)</td>
<td>54(26.0)</td>
<td>0.69</td>
</tr>
<tr>
<td>Maximum speed limit on expressways</td>
<td>178(95.7)</td>
<td>8(4.0)</td>
<td>&lt; 0.001</td>
<td>3(1.6)</td>
<td>5(2.4)</td>
<td>0.73</td>
</tr>
</tbody>
</table>

VA – visual acuity, DT – driving test, DL – driver’s licence
Table 3: Effect of health education on respondents’ overall knowledge and practice

<table>
<thead>
<tr>
<th>Knowledge score</th>
<th>Intervention</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Post (n = 186)</td>
<td>Pre (n = 199)</td>
</tr>
<tr>
<td>Minimum age/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pre-requisites for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>licensure (VA, DT)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>3(1,6)</td>
<td>10(5,0)</td>
</tr>
<tr>
<td>Fair</td>
<td>28(15,1)</td>
<td>86(43,2)</td>
</tr>
<tr>
<td>Good</td>
<td>155(83,3)</td>
<td>103(51,8)</td>
</tr>
<tr>
<td>Road signs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>17(9,1)</td>
<td>125(62,8)</td>
</tr>
<tr>
<td>Fair</td>
<td>55(29,6)</td>
<td>50(25,1)</td>
</tr>
<tr>
<td>Good</td>
<td>114(61,3)</td>
<td>24(12,1)</td>
</tr>
<tr>
<td>Maximum speed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>limits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>8(8,1)</td>
<td>197(99,0)</td>
</tr>
<tr>
<td>Fair</td>
<td>66(35,5)</td>
<td>2(1,0)</td>
</tr>
<tr>
<td>Good</td>
<td>112(56,4)</td>
<td>0(0,0)</td>
</tr>
<tr>
<td>Overall knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>19(10,2)</td>
<td>87(43,7)</td>
</tr>
<tr>
<td>Fair</td>
<td>44(23,7)</td>
<td>112(56,3)</td>
</tr>
<tr>
<td>Good</td>
<td>123(66,1)</td>
<td>0(0,0)</td>
</tr>
<tr>
<td>Mean ± SD</td>
<td>72,3 ± 10,2</td>
<td>34,4 ± 9,1</td>
</tr>
<tr>
<td>Student's t statistic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adheres to maximum speed limits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>149(74,9)</td>
<td>183(98,4)</td>
</tr>
<tr>
<td>No</td>
<td>3(1,6)</td>
<td>50(25,1)</td>
</tr>
</tbody>
</table>

* Fisher’s exact p
Everyday partner violence in Rwanda: The contribution of community-based socio-therapy to peaceful family life

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Community-Based Sociotherapy Program, Kigali, Rwanda

ABSTRACT

Rwanda is well known for the 1994 genocide against the Tutsi. What is less known is the increase in everyday partner violence that has come about as a legacy not only from the genocide but also from the war preceding the genocide. A range of war and genocide-related factors continue to contribute to family conflict and intimate partner violence in Rwanda to this day. This raises particular challenges for interventions aimed at curbing such incidences. This article presents arguments for community-based sociotherapy as a psychosocial approach that can effectively meet these challenges. The qualitative study that informed the article was situated in the north of Rwanda. Data collection methods included interviews, focus group discussions, participant observation and informal conversations. Data were coded and categorised in relation to the main research questions. Social disconnection and mistrust as legacies of the war and genocide proved to be major issues underlying family conflict and partner violence. Sociotherapy reportedly restores trust, dignity, respect and a caring attitude among its participants, thereby facilitating the creation of a home environment in which husband and wife start to openly address their problems, cease different forms of partner violence, raise their standard of living and become role models in their neighbourhood. Community-based sociotherapy as a grassroots intervention has proven to be an effective complement to more top-down public and political responses to gender-based violence.

Keywords: partner violence, family conflict, community-based sociotherapy, war, genocide, Rwanda.

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INTRODUCTION

In the international literature about brutal violence against women, frequent reference is made to the mass rape of women that took place during the 1994 genocide against the Tutsi in Rwanda (Human Rights Watch, 1996). Less documented are the various direct and indirect consequences of these rapes for women’s lives (Richters & Kagoyire, 2014). Even less attention has been paid to the ongoing and increasing incidence of everyday partner violence against women as well as men, not only as an after-effect of the genocide but also of the preceding war.

In a large national household survey among 1,311 men and 2,301 women on perceptions of masculinity and the problem of gender-based violence in Rwanda, more than half of the women responded as having experienced gender-based violence committed by a partner. Cross-analyses indicate that men who went through the war and/or genocide tend to become violent towards their partners more often than men who were not involved in the war (Slegh & Kimonyo, 2010). The survey did not examine the details of men’s war and genocide experiences that may have contributed to their violent behaviour. In a cross-sectional study conducted in the north of Rwanda by Verduin, Engelhard, Rutayisire, Stronks and Scholte (2013) on intimate partner violence among 241 married men and women, 25% of the respondents reported having been involved in such violence in the preceding three months. Seventeen percent of men and 29.7% of women indicated that they were victims of intimate partner violence. A minority of men and women reported being both victims and perpetrators. No women indicated being perpetrators only. Five men reported being perpetrators only, and two men reported being a victim of intimate partner violence without being perpetrators themselves. These results demonstrate that both men and women can be victims as well as perpetrators of intimate partner violence and that in some cases the violence is bidirectional. Study findings suggest that the reported violence is associated with common mental health disorders and suicidal ideation, while perpetrators may suffer from mental health problems as much as, or even more than, victims. Whether the study outcomes could be empirically related to the past war and genocide violence was beyond the scope of the study.

All 241 respondents in the Verduin et al. (2013) study also participated in a larger study about the effects of a psychosocial intervention – community-based sociotherapy – on survivors of mass violence in Rwanda (Scholte et al., 2011). The study found that sociotherapy caused lasting improvements in participants’ mental health. In our study we will demonstrate that this improvement in mental health is inextricably linked to other effects. Sociotherapy is a multi-systemic intervention which has multi-systemic effects.
The qualitative study that informed this article was, like the studies of Verduin et al. (2013) and Scholte et al. (2011), conducted in the Gicumbi district in the northern province of Rwanda. Complementary to these two previous studies, it focused on the causal linkages between war and genocide experiences and current everyday partner violence, as well as the contribution that community-based sociotherapy has made in terms of putting an end to such violence.

SOciotherapy IN A POST-CONFLICT SEstting

Between 1990 and 1994 the population in the north of Rwanda suffered significantly, both from the war between the then Hutu-dominated government and the opposition Tutsi-dominated Rwandan Patriotic Front (RPF), and then the subsequent genocide against the Tutsi. The war violence led to the mass displacement of people to places of shelter further south and to refugee camps in adjacent countries. The experiences of those who became internally displaced or exiled abroad were often quite traumatic. Exile was the continuation of war by other means. Living conditions in and around displacement camps were very harsh, particularly in the highly militarised camps in the Democratic Republic of Congo, with the result that thousands of people died of hunger, disease, and direct violence (Prunier, 2009).

After the genocide, most displaced and exiled people gradually returned to their place of origin. There, many found most of their properties destroyed. The population, whether or not they had been displaced or had gone into exile, had to cope with the loss of loved ones and a society that had to rebuild itself in all aspects. A widespread feeling of insecurity, powerlessness and desperation affected community and family life deeply. Many people no longer cared for themselves, having lost interest in their own sense of dignity or future. Some became aggressive in reaction to just about anything, good or bad. Others wandered aimlessly around without courage or a plan to survive. In short, after a decade of so-called peace the Byumba population was still much affected by the legacy of a history of political violence.

In order to help redress this situation, in 2005 the Byumba Diocese of the Anglican Church of Rwanda introduced community-based sociotherapy in its constituency, which included Gicumbi (Richters, 2010; Richters, Dekker & Scholte, 2008). The major objectives were to foster feelings of dignity, safety and trust in all survivors of the war and genocide (regardless of religion and ethnicity), to reduce mental and social distress, and to overcome disturbed and delayed socio-economic development. The Byumba Diocese had been trying to reach these objectives since its foundation in 1991 through individual pastoral counselling and socio-economic development projects, but had felt overwhelmed by the requests for
support. It realised that new approaches were required to address the psychosocial needs of the population more effectively. Sociotherapy was seen as an approach worth trying.

Sociotherapy in Rwanda, as a context-driven multi-systemic or ecological intervention (cf. Hamber, 2009; Stanciu & Rogers, 2011; Walsh, 2007), turned out to be a viable alternative to the many individual oriented trauma counselling initiatives in the country. In Byumba, like in other post-war and post-genocide settings, the past multiple traumatic violence-related events had had an impact as much on the physical and mental level as on the social and cultural level. The social psychologist Martín-Baró (1989) introduced the term “psychosocial trauma” in reference to such multi-systemic traumatisation. While psychic trauma refers to a particular injury that difficult or exceptional experiences may inflict on a particular person, social trauma refers to a whole population being affected by a historic process such as war. This does not imply that a uniform effect of war is produced throughout a population; each individual has his or her particular experiences of traumatic loss. However, Martín-Baró (1989) argues that we need to understand the human being as “a product of a particular history, which in each case is manifested in the social relations of which the individual is an active and passive part” (p. 16). This implies that, for the purpose of reaching the objectives set by sociotherapy in Byumba, understanding people’s collective history is as important as understanding their individual history.

Sociotherapy in Rwanda uses the group as a therapeutic medium to establish trust, create an open environment for discussion and form peer support structures. Groups of ten to fifteen people – the majority of whom are village people with little or no education – meet weekly for approximately three hours over a period of fifteen weeks, in participants’ direct living environment, in a place that they experience as safe. Two trained sociotherapists guide the group through the subsequent phases of safety, trust, care, respect, new rules and memories. Throughout the journey, seven principles are applied: interest, equality, democracy, participation, responsibility, learning by doing, and the here and now (Richters et al., 2008).

As described elsewhere (Richters, Rutayisire & Dekker, 2010), it is in the sociotherapy phase of care that the healing of people’s social and individual distress starts to take effect. When a person understands that he or she is safe and can trust the other group members, that person usually starts to share his or her everyday troubles with them. Group participants are encouraged to take care of one another and attempt to solve their daily problems together. This process enables participants to think about the future constructively once again and to change their behaviour accordingly. In contrast to many other healing and reconciliation programmes in Rwanda, confrontation with painful memories about the past is not encouraged. The main focus is on actual daily life problems, including, for instance,
poverty issues, family conflicts, health issues, drug abuse, distrust among neighbours and social isolation. In general, it is only towards the end of the group sessions, when a genuine atmosphere of trust and mutual respect has been established, that painful memories of the past are shared.

The Byumba sociotherapy programme started with so-called single category groups composed of, for instance, widows, people affected by HIV and AIDS, single mothers, former prisoners, secondary school students, men living in difficult home situations and elderly people. Through monitoring and evaluation, it soon became clear that within all of these groups, family problems were a much discussed topic. This resulted in the establishment of sociotherapy groups for either women or men in conflict with their spouse, as well as groups for married couples. Over the seven years that the programme was in operation, at least 10,000 people participated in a sociotherapy group, and altogether 120 sociotherapists contributed to the facilitation of these groups.

**STUDY APPROACH**

The empirical data were collected by Sarabwe, the second author, who has lived for most of his life in Gicumbi and served on the Byumba sociotherapy programme as a staff member throughout the years in which it was in operation (2005–2012). He witnessed many family conflicts in his living environment related to the effects of the war and genocide, and also became familiar with the high incidence of family conflict as an issue presented and discussed in sociotherapy groups. This made him decide to focus his research for his MA in social work on an exploration of the ways in which the war and genocide have affected couples’ lives and relationships, and the role that sociotherapy has played in solving family conflicts in the Gicumbi district. Richters, the first author, has accompanied the sociotherapy programme in Byumba throughout, which familiarised her with the issues addressed in this article and enabled her to put them into perspective.

The study location covered three sectors (administrative entities) in the Gicumbi district. Data collection took place during the first six months of 2012. The main researcher used reports by sociotherapists documenting sociotherapy group sessions for the identification of groups in which family conflicts were a frequently-addressed issue. Based on people’s availability, and on participants’ testimonies of significant changes experienced due to sociotherapy presented in closing sessions of sociotherapy groups, he selected six sociotherapy participants and six so-called indirect participants (spouses of sociotherapy participants) to contribute to the study as key informants. Six sociotherapists familiar with facilitating sociotherapy groups for men or women in conflict with their spouses and three local leaders familiar with the impact of sociotherapy in their working area were selected for
the same purpose. A semi-structured interview of approximately one hour was conducted with each of the 21 key informants (12 women and nine men). Three focus groups were organised: one with the six direct participants, one with the six indirect participants and one with the six sociotherapists. In addition, the researcher participated in sociotherapy group sessions as an observer, as well as in the everyday life settings of group participants and their spouses through informal conversations and observation.

This multi-method approach helped to improve the validity of the data. All interviews and focus group discussions were audio-recorded and transcribed. Data were coded and categorised in relation to the two main research questions: What are the most significant war and genocide-related factors contributing to everyday family conflict? And what are the most significant changes contributing to stability and peace in families as a result of participation in sociotherapy? Being a local person helped the researcher to understand the difficulties that some informants had in sharing family secrets with him and in going back in their thoughts to a traumatic past. It also contributed to overcoming these difficulties. He gained the confidence of his informants by convincing them that the information that they would share with him would be anonymous and thus confidential; the names of informants in this article are pseudonyms.

FAMILY CONFLICT AND ITS CONTRIBUTING FACTORS

Informants agreed that the ideal family is one in which husband and wife love, respect, trust and help each other, share the bad and the good, develop visions and plans together, consult one another over resource allocation, jointly carry out family responsibilities, are both economically productive, agree on the desired number of children, are faithful to one another, and advise each other. The examples that informants gave of factors that divert couples away from this ideal were gender-specific. As sources of conflict, men referred to wives not respecting them, not responding to their requests, not caring for the children, and not welcoming visitors in an appropriate way. Women mostly referred to men not understanding their worries, not providing for the family and misusing resources, and beating and insulting them.

Our informants also provided information on war and genocide-related factors that have contributed to the current high prevalence of disturbances in family relationships. All were topics of debate in focus group discussions and featured in sociotherapy group sessions. Although we are unable to unpack these in much detail given the focus of this particular paper, the factors identified are noteworthy and include: poverty as an all-determining issue; the death of important others; family planning issues related to the loss of children; separation from loved ones; being physically disfigured and/or disabled; the care of
orphans; interethnic marriage; increased incidence of polygamy and extramarital sex; disease (specifically HIV and AIDS) and injury; disparate church membership; and women’s empowerment due to survival skills learned during the war and genocide. A number of these issues intersected with one another. An overall crosscutting factor was mistrust. All together, the factors identified provided us with the contours of a collective history of family conflict due to war and genocide. It is important to note that our informants mostly used the words “war” and “genocide” concurrently, because in their experience both forms of political violence were blended together. This made it difficult for them to determine clearly which aspects of their deteriorated life situation could be attributed to war and which to genocide.

The main researcher did not pose direct questions about violence perpetrated specifically by women. This issue was, however, occasionally discussed in sociotherapy groups; for instance, in response to the question of why men are violent, it was mentioned that men’s violence is a reaction to the violence perpetrated by their wives. The researcher observed two male participants sharing in group sessions that their wives had been jailed because of misuse of family resources, drug abuse and in one case also because of an attempt on his life. Usually, however, men would rather be silent about the violence perpetrated by their spouses against them in order to maintain their sense of masculinity.

THE CONTRIBUTION OF SOCIOTHERAPY TO THE REDUCTION OF PARTNER VIOLENCE

Sociotherapy helps group participants to overcome the obstacles that prevent them from living a peaceful and relatively prosperous family life. Through dialogue and action within a sociotherapy group, many participants start to break through the confines of their “limit-situation” (a situation that impedes a person’s full humanisation) (Moane, 2003, p. 97), which soon has a positive spin-off effect on their families and communities.

JOURNEYING THROUGH THE SOCIOTHERAPY PHASES

Distrust and feelings of insecurity, as indicated above, are legacies of the war/genocide that pervade the life of many people in Gicumbi. The aim of sociotherapy is, first of all, to establish a certain degree of safety and trust in a sociotherapy group. Participants are warmly welcomed in the group. They are asked to sit in a circle, which symbolises the principle of equality that starts to make participants feel valued and dignified. In the phase of safety, they begin to share the stressors that make each one of them feel insecure. They then prioritise their problems in a democratic fashion according to the severity of the stress that they cause, and subsequently discuss them in a respectful way in the prioritised order.

“After the phase of trust, group participants start to value each other and recognise that each person has strengths and weaknesses, which [in couples] should be
tolerated by the partner in order to live harmoniously. Each one becomes aware that one can make a mistake and should apologise for it, while one also learns to forgive.” (Ange, sociotherapist, aged 52, focus group discussion)

Once safety and trust are established, participants may speak more freely about what is most at stake for them. The experience of being listened to strengthens the feeling of being valued once again, and usually makes people receive the subsequent advice of others in good faith. As Aline (female sociotherapy participant, aged 38) testified,

“having a voice and being heard by twelve participants and two sociotherapists who paid attention to my problem, I felt that today I am a person with value and dignity.”

During the phase of care, participants share what care means to them. Care is subsequently enacted through, for instance, visiting each other and assisting those who are disabled in agricultural activities. Many participants have suffered from stigmatisation and discrimination, while at the same time they stigmatise and discriminate against others. They have also stigmatised themselves by internalising society’s non-recognition of their value and dignity. Home visits, group work, and assisting each other contribute further to making participants feel recognised and respected once again. Being heard, visited, and advised shows and reassures participants that they are still human beings who are not only being taken care of, but can also take care of others.

Each idea brought forward in the group as advice to others is valued, respected, and appreciated, at least during the first number of group sessions (see below). This way, participants develop feelings of pride and efficacy over having contributed to problem-solving for their peers. This pride gives them the power to approach their own partner and solve problems at home. Gradually, they also develop new rules (see below), which they apply for the sake of positive change.

LESSONS LEARNED IN SOCIOTherAPY APPLIED AT HOME AND IN THE COMMUNITY

Soon, participants begin to apply what they have learned in sociotherapy at home. Feeling like human beings again contributes to thinking and acting objectively in family life, which in turn reduces tension and dissatisfaction. Through the experience of care, each spouse starts to feel responsible for helping their partner live peacefully and enjoy family life. Ancilla (female sociotherapy participant, aged 42) narrated in an interview:

“Before the genocide, my husband considered me to be someone without any useful ideas. That was why I considered him a foolish and useless man. After the
war/genocide, when the number of widows drastically increased, he was not only using family resources for drinking but also for buying gifts for widows with whom he wished to have sex. This was stressing me much, because in addition to poverty I suffered from the risk of getting sexually transmittable diseases, including HIV/AIDS. In sociotherapy, I learned that even if my husband is behaving wrongly, he is still my husband, deserving respect. I started to show him love and respect even when he was drunk. In the mornings, I was greeting him and finding him something to eat, because many times he did not eat in the evening when he was drunk. He started to recognise me as a powerful and compassionate woman. In addition, he started to pay attention to my ideas and changed the drinking and infidelity behaviour.”

Ancilla did not ask anything from her husband and did not give him any advice. She merely changed her own behaviour. One of the results was that his misuse of their financial resources, earned through his work in a tea plantation, ceased.

“What surprised me was that my husband by himself decided to pay for my contribution to the association I belong to, without me requesting it” (Ancilla).

Hakuzimana (female sociotherapy participant, aged 32) gave a similar testimony:

“Before participating in sociotherapy sessions, my husband was using almost all family resources to buy beer, resulting in daily beatings. Up to today, I still suffer from their effects. In the evenings, I was always prepared to fight. While participating in sociotherapy, the participants told me that peace is not always achieved by preparing for war but more through doing good things that might change the opponent. At home, I prepared very delicious food that, with joy and pride, I invited my husband to share when he was being tempted to insult and beat me. He only took a small quantity to eat because he first wanted to know where the respectful behaviour and care I showed came from. After preparing this food three times, he drastically reduced his disputes with me and we started to share family issues with each other as he learned that I was participating in sociotherapy sessions. He now helps me in digging, feeding domestic animals, and other activities, which before I used to perform alone.”

Couples in which one of the partners has participated in sociotherapy learn to respect each other, to value and care for each other, to feel equal, and to identify that each has contributed in his or her own way to insecure situations and conflict. They learn to be calm when conflict arises, to reduce outrageous behaviour and to create opportunities for
negotiation. Subsequently, they explore alternative strategies together and solve problems progressively. This is illustrated by what Evariste narrated in an interview:

“Since marriage [in 1992], I [a Hutu man] was living well with my wife, a Tutsi woman, fostering children born from her first husband [a Tutsi] who had already died in 1988. Our peaceful family life changed after 1994. During the genocide, my wife Mukakamari lost almost all family members, while I had already lost some during the war. My family and neighbours in Gicumbi were not happy to see me living with a Tutsi survivor with two children, while my wife was asking herself how to live with a Hutu whom she associates with the genocide perpetrators. This situation widened the distance in our relationship, even though we together received three children. Soon I started to hear neighbours advising me not to live with an old Tutsi woman [aged 57]. This raised a dilemma in me: should I remain with her or find another wife?”

Evariste and Mukakamari faced problems commonly found in interethnic marriages. Children born in a family like Evariste’s are perceived as Hutu (after their father, who is Hutu), while the children from Mukakamari’s previous husband that she brought into the marriage are seen as fully Tutsi (since their father was Tutsi). This ethnic difference may lead to conflict between both the children and the parents over, for instance, the historical education of the children and the sharing of property between them. This happened in Evariste’s family. Due to Mukakamari’s participation in sociotherapy, however, the situation changed for the better. When Mukakamari came home after the third sociotherapy session, she politely greeted her husband, cooked for him, and painfully attempted to smile. During the following week, she started to tell him what she was learning in sociotherapy and went to dig together with him, sharing some joyful words. Gradually, they both opened up and discussed their family problems due to ethnicity, the way that they affected their family life, the children’s education and the community as a whole. They then spoke to their children about Rwanda’s history of ethnic conflict and the ways in which they had both suffered from it. The end result was the restoration of peace in their family.

Group members also regulate one another’s practices outside of the group by checking on whether they are applying sociotherapy’s informal code of conduct, which requires them to become model families in their respective communities. Aline (female sociotherapy participant, aged 38; her husband participated in another sociotherapy group) testified in an interview:

“Before participating in sociotherapy, I could not share a blanket with my husband in bed. He was lying on a small mattress while I was lying on grasses. He wanted
me only near him for sex. The fact that he would also force me to have sex with him at the place where I was digging harmed me a lot. I was wondering how long I should remain in this awful family life. The food he bought he consumed alone. After participating in sociotherapy, my husband became like a Christian who fears that God knows everything one thinks. This resulted in family sharing and consultation, even in matters of sexual intercourse. He fears that he may behave wrongly and that others or I might notice it if he would. Those who participated in sociotherapy with him would certainly accuse him of misrepresenting the behaviour promoted by sociotherapy, and those who did not participate would ask themselves why a person who participated in sociotherapy would behave like that. My husband really became a trustworthy person. If my husband comes home and tells me that he has bought goods on credit, and personally decides to explain to me the reason why he did it and considers my corrective advice, how can I not trust him in matters of family financial management?"

When a family belonging to Aline’s church experiences conflict, the church leaders refer that family to Aline for guidance; they know that she can help as she was able to manage a conflict in her own family that was considered by the community to be a most difficult conflict to solve.

Participants experience that in sociotherapy, taken-for-granted rules are not always the best and that change for the better is possible. At the start of a cycle of fifteen sociotherapy sessions, group members are given the opportunity to set rules democratically that will guide them during their sociotherapy process. Examples of such rules are not being late, not interrupting the person who is speaking and not judging an idea brought forward in the group as right or wrong. In later sessions, participants evaluate the usefulness of these rules and, based on their experience in the group and new understandings, might remove ineffective rules and replace them by entirely new rules if appropriate. For instance, while it is necessary at the start that everyone’s idea is valued as worthwhile, later on one can and should accept that, based on good arguments, one’s idea might be rejected. So the rule of not judging ideas as right or wrong is no longer necessary. Participants subsequently look at their families and communities with the understanding that things could be done differently from what is customary. They start to analyse the value of the taken-for-granted rules that families and communities apply and explore how these rules could be revised for the sake of smooth and peaceful progress for families and communities. As Hakuzimana said,

“We as sociotherapy graduates have to create new rules in the family and community, just as we do in sociotherapy in the new rules phase.”
LESSONS LEARNED ABOUT GENDER BALANCE AND WOMEN’S RIGHTS

Already during the phase of safety, gender issues, such as those identified above, are presented by women in the group. Before this, many women feel very isolated in dealing with these issues, but during the sessions they gradually start to share the rights and obligations that they have and advise one another on how to enjoy them. In becoming more aware of their rights, women start to claim them strategically, peacefully and lovingly. The sociotherapy principle of responsibility motivates them to be active in problem-solving and engaging in activities that increase the family income, such as enrolling in income-generating associations. This overcoming of passivity in family affairs motivates men to value their wives more than before.

Evariste’s change in behaviour is exemplary of what sociotherapy can achieve in terms of gender balance. When he arrived one-and-a-half hours late for a scheduled interview, he apologised to the researcher by saying that he first had to attend to his responsibilities at home, such as searching for grass to feed the family cow and cooking food for the children while his wife had gone to church. Later in the interview, he stated that in his family there are no specific tasks for the husband or wife to carry out; there are only family tasks. Evariste confirmed that he and his wife openly shared all their views and sadness. Neither of them could spend more than one thousand Rwandan francs (a little over one Euro) at a time without informing the other. They had agreed to buy land and were saving money in the bank for that purpose. Both were informed about their bank account balance. Another significant change was made by Semana (male sociotherapy participant, aged 37), which he discussed during the group’s closing session. Upon completing the sociotherapy sessions and after discussion with his wife, Semana underwent a vasectomy, an action which goes against the general perception among the population that family planning is entirely a woman’s responsibility. This is significant since disagreements over family planning are one of the main factors contributing to the increase of family conflict in the post-war/genocide period.

Respect for women’s rights and an increase in gender balance have also contributed to small-scale economic developments, as some of the quotations above have already shown. Sociotherapy teaches spouses to take equal responsibility for income-generating activities. Furthermore, when men start to realise that their wives are carrying the family burden alone, they are challenged to support them. Two more testimonies of female sociotherapy participants illustrate its positive results:

“From daily fights with my husband due to poverty and disagreements over resource management, I tried to commit suicide. Fortunately, my children saw me hanging and
saved me. After being rescued, I joined sociotherapy, where I learned that poverty can be ended or reduced by working hard, collaborating, mutual understanding and forgiveness among family members. With the income I got from the association I recently joined, and by properly using the family land, we have reduced the poverty at home and my family has peace." (Jeanne, aged 33)

“After participating in sociotherapy, I learnt about my responsibility in the family’s economic improvement. When my family got a goat from Ubudehe [the government programme supporting poor people to increase their income], I advised my husband not to sell it and we now have five goats, while other families who benefited from the goat project sold their goats for beer.” (Merisiyana, aged 38, victim of rape, HIV positive)

DISCUSSION

Our study has identified several war/genocide-related factors that contribute to gender-based violence in the north of Rwanda, which should be taken into account in prevention programmes. These factors intersect with traditional cultural norms, values and practices that sustain perceptions of masculinity and femininity and continue to contribute to gender inequalities and gender-based violence. At the same time, traditional gender relations are under strain as a result of altered social realities after the genocide. In the post-conflict situation women have had to take on more responsibilities due to the loss of husbands and family members as well as the long-term imprisonment of husbands, though they have also gained more rights through new laws and policies. Progressive gender policies in Rwanda include the legalisation of succession for women, new land and property rights for women and men, and the adoption in 2009 of a law on the protection against, and prevention and punishment of, gender-based violence. However, the ongoing transmission of traditional gender norms through institutions such as the family, school and church hamper the effective implementation of the various, mostly top-down, governmental initiatives to prevent gender-based violence. Sociotherapy as a grassroots intervention has proven to be a successful complement to these initiatives and to contribute towards their effectiveness.

Sociotherapy follows a group dynamic approach. The core of this approach lies in the application of a group process to create a “possibility sphere” that facilitates behaviour change. Group dynamics are used to produce a holding environment; an environment that for many people had been lost due to the betrayal, loss of life, separation from family members, and mistrust generated by war and genocide in Rwanda. The experience of safety and trust created by the group dynamics enables people to discuss problems and support each other in a process of change. The implementation of this approach at
grassroots level actively includes the context of people’s living environment. This way, the participants’ families, neighbours, and other community members are indirectly reached by the intervention. This may result through a process of change from within, as men who do not themselves participate in sociotherapy nevertheless change their perceptions of gender norms and cease their destructive behaviour (see also Slegh & Richters, 2012).

The fact that people’s living environment is included in the sociotherapy approach also effectively complements hospital treatment of mental health problems. In a recent meeting organised by the Rwandan Ministry of Health, it was observed that the most difficult problem that mental health services face is that a patient may seem to respond well to the given treatment (usually medicines), once the patient is back home he or she relapses. Sociotherapy may be of help here by facilitating the reintegration of the patient into the community. However, one has to take into account that when a person seeks hospital treatment, it is usually for a specific health problem, while people who join sociotherapy mostly come without a clearly described problem. Going through the sociotherapy process makes them realise that they do have a problem and helps them to solve it.

Informants participating in ongoing sociotherapy research frequently mentioned that, from their perspective, the medicines prescribed for their psychological problems did not always help. Furthermore, regarding individual trauma counselling, they also had their reservations, because a person’s living environment is unchanged by the counselling sessions. With sociotherapy, some explained with much conviction, “the group is our counsellor”. We have to be cautious here. Sociotherapy so far has mainly targeted people with family problems who have only a few years of education or none at all and are relatively poor. More educated people may find other ways to help solve family conflicts and other conflict-related psychological and social problems. Comparative research on the effectiveness of different kinds of individual and group therapy offered in a country like Rwanda, where social and individual distress in the aftermath of war/genocide are so interlinked and widespread, is recommended here (cf. e.g. Bass et al., 2013).

Despite the positive reception of sociotherapy among the population, sociotherapy faces a number of challenges. We observed in our study, for instance, that although the aim of sociotherapy was explained to group participants at the outset, many were reluctant to openly share private family issues in the group sessions, fearing that they might be punished by their spouses or be considered untrustworthy, because they were not able to keep their family secrets. Some also wondered whether sociotherapy was not just a way of “judging them or reinforcing their dehumanisation”. After a few sessions, however, this fear usually disappeared.
Another challenge is that sociotherapy can, instead of promoting women’s rights, have the unintended effect of endangering women’s lives. Group participants are usually motivated by sociotherapists to be humble and to accept one another’s guidance in terms of how to change their spouses’ behaviour. This approach does have positive results, but not always. For instance, Ancilla, who refused to have sex with her husband because of his extramarital sexual affairs, was advised by the group to nevertheless have sex with him for the sake of reconciliation. However, accepting this advice would put her at risk of contracting a sexually transmitted infection, since her husband refused to use a condom. In some groups, sociotherapists did not help the group to evaluate the dangers that might occur when accepting all of the group’s advice for the sake of reaching reconciliation.

Our study also found that women as well as men can be violent, though we neglected to explore this issue in depth. As Kruger, Straaten, Taylor, Lourens and Dukas (2014) have demonstrated in South Africa, women can be a destructive element in family life due to dire living circumstances. In our case, living circumstances as a determinant of violence by women are most probably intersected by some of the war/genocide-related factors that contribute to partner violence, which we listed in the study findings above. The study by Sleigh and Kimonyo (2010) found that traumatisation of men as a result of war/genocide is an important factor contributing to family violence and community instability. Based on what women told us about their war/genocide experiences more generally, we hypothesise that the same causal relationship applies to women. Some men in our study raised the question of why the current laws and Rwandan culture do not protect men from violent women. Two men, however, did testify that the law does also protect men; they had apparently overcome the culturally engrained shame of admitting as a man that a woman had been violent towards them. These and other gender issues should, if possible, be part of the training of sociotherapists.

Our respondents, both sociotherapists and sociotherapy participants, suggested that if both husband and wife participated in sociotherapy, whether each in the same group or in different groups – as was the case with Aline and her husband (see above) – then reconciliation would become easier. Sociotherapists added the wish to be trained in individual counselling, so that they could apply this when required. For instance, some participants do not share their most significant problems in the group, though they may beneficially do so afterwards in an individual session with the group sociotherapist. There is, however, a limit to what can be expected from sociotherapists who receive only a few weeks’ training. Partner violence and mental health problems, for instance, can be so severe that a different kind of expertise is required; expertise that is not sufficiently available. On the other hand, we need to realise that evidence-based research in a number of low- and middle-income countries has shown that in the field of mental health care lay people with a limited amount
of training and supervision “often perform as well as highly trained academics” and that, in general, “therapists’ success is primarily related to the quality of their alliance with patients” (De Jong, 2013, p. 5).

CONCLUSION

Community-based sociotherapy, implemented as a multi-systemic intervention in a specific post-conflict setting, has proven to effectively contribute to the reduction of partner violence in its areas of operation. It therefore holds promise for other post-conflict settings, where people need to come to terms with a range of family problems as a legacy of past political violence. In Rwanda, the recognition by various stakeholders of sociotherapy’s positive impact on individual and social healing, in addition to peace building from below, has facilitated the start of a new nationwide sociotherapy programme (see Community Based Sociotherapy, n.d.). The very first phase of this programme has already confirmed that a wide range of family issues are at the core of the problems people struggle with. The Byumba programme has taught us that with limited support people can be empowered to break cycles of family conflict and violence and restore social connections damaged by a history of political violence.

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An exploration of student perceptions of the risks and protective factors associated with child sexual abuse and incest in the Western Cape, South Africa

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ABSTRACT

Child sexual abuse (CSA) and incest have been identified as increasing social problems in South Africa. Despite thousands of children being affected annually, the majority of cases remain unreported. The aim of this study was to qualitatively explore the knowledge-based perceptions of senior university students from multiple disciplines, of the risk and protective factors associated with CSA and incest. The study utilised both focus groups and individual interviews to obtain the data. Two focus groups consisting of eight participants each were conducted. Five individual interviews elicited in-depth responses which could not be accessed via the focus group discussions. Data collection was guided by semi-structured questions, and thematic analysis was used to analyse data. The findings of the study revealed that perceived risk factors associated with CSA and incest included the influence of education from the child and family’s perspective, poverty, overcrowding, the influence of power, and the deterioration of morals and values. The perceived protective factors that participants discussed centred on the impact that education has on children and society; the importance of good parenting; society’s overall awareness and empowerment; laws and regulations, and rehabilitation programmes for perpetrators.

Keywords: child sexual abuse; incest; risk factors, protective factors; power

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INTRODUCTION

In recent years there has been a considerable proliferation in the number of child sexual abuse (CSA) and incest cases reported in South Africa (Banwari, 2011; Higson-Smith, Lamprecht & Jacklin, 2004; Petersen, Bhana, Mckay, 2005). These cases demonstrate the severity of a phenomenon which has plagued this developing nation and the world for decades (Banwari, 2011; Lalor, 2004; Madu, 2003). The South African Police Services 2012/13 analysis of the national crime statistics reveals a crime ratio of 127 per 100 000 in the population for reported sexual offences. These include rape, sexual assault, acts of consensual sexual penetration with certain children (12 > 16 years), and statutory sexual assault (South African Police Service, 2013). Although this ratio has decreased by 0.4% in the past four years (and perhaps needs to be cautiously interpreted), it is still alarmingly high.

A contextual analysis of the severity of CSA and incest was conducted by the Medical Research Council (MRC) on reported rape cases in South Africa, which verified that 40% of rape survivors were below the age of 18 (Jewkes & Abrahams, 2002). The study revealed that only one out of 10 child rape cases was reported to the police and resulted in a criminal conviction (Jewkes & Abrahams, 2002). More than a third of rape survivors were under the age of 17, while 6% were under the age of seven. Incest manifested itself in 24% of the reported cases of sexual abuse and rape for children under the age of 11 (Jewkes & Abrahams, 2002). There are considerable complexities regarding the identification of CSA, as many children do not report the abuse, and the physical evidence is not always visible (Modeli, Galvão & Pratesi, 2010). In order to maintain clarity, the definitions below were used for the current study.

DEFINITIONS

Finkelhor (1994), who has published extensively in the field of CSA, maintains that there is a considerable amount of confusion around the definition of CSA. This confusion may be related to the complexities surrounding the diagnosis of CSA and incest because physical examination alone is infrequently diagnostic without the history or specific laboratory findings (Sakelliadis, Spiliopoulou & Papadodima, 2009). This confusion manifests across various research studies, disciplines and social service reporting agencies (Dawes, Borel-Saladin & Parker, 2004). In the current study the definition given by Finkelhor (1994) was used. According to Finkelhor (1994), CSA has two main elements: first, it is seen as any sexual activity that involves a child, and second, it contains abusive conditions such as coercion or the presence of a large age gap between participants which illustrates a lack of consent. The common law definition of incest is sexual intercourse between people who are
related and by law are prohibited to marry (Community Agency for Social Enquiry, CASE, 2005). Article 2 of the African Charter on the Rights and Welfare of the Child (ACRWC) states that a child is any person below the age of 18 years (Organization of African Unity, OAU, 1990).

RATIONALE

In a briefing paper on rape perpetration for the Sexual Violence Research Initiative, Jewkes (2012) describes rape as potentially preventable. The review also states that although genetic influences play an important role, there is considerable evidence that there are five groups of amenable risk factors which are important to rape perpetration. These groups of risk factors are: negative childhood exposures; attachment and personality disorders; social learning and delinquency; gender inequitable masculinities; and firearms and substance abuse (Jewkes, 2012). Jewkes (2012) concludes by making recommendations for future research to strengthen the field of rape prevention. These are: expanding the understanding of risk factors for perpetration of different types of rape including child rape and sexual abuse (Dodge, 2005; Jonzon & Lindblad, 2006); employing multi-disciplinary research that combines perspectives from multiple disciplines including psychology and gender studies among others (Jacobson, 2001); and understanding patterns of susceptibility (Malamuth, Sockloskie, Koss & Tanaka, 1991).

In response to the call for research in this area, the current study attempts to strengthen the understanding and knowledge base of risk factors for perpetration and for the protection of children. It aims to explore the perceptions of senior university students from multi-disciplines about the risks and protective factors that place children, families and society at an increased risk of CSA and incest, while simultaneously exploring the influence of gender inequalities in South Africa.

METHOD

RESEARCH METHODOLOGY

In order to gain an in-depth understanding of the issues in this study when viewing this social problem from an insider’s perspective, a qualitative research approach was used. Qualitative research, because of its compatibility with feminist perspectives, aims to explore any issues concerning power and powerlessness in terms of gender inequity (DiCicco-Bloom & Crabtree, 2006; Ulin, Robinson & Tolley, 2005).
PARTICIPANTS

The sample for this study consisted of 21 senior university students ranging from ages 22–27 years, 18 women and three men, majoring in the academic disciplines of psychology, (n = 7); social work, (n = 5); women and gender studies; (n = 5); and economic and management sciences (EMS), (n = 4). Information forms were given to all participants in order to provide their demographic details. Students were selected from these academic disciplines based on the fact that psychology students at a senior level are accustomed to focusing on social problems affecting society, and CSA is often a core aspect to social work studies with senior students receiving extensive practical training with children who have been abused. Students from women and gender studies were chosen as this discipline often provides a feminist perspective on the complexities surrounding CSA and incest; students from EMS were selected based on an insight that was not of a social scientific nature. These students were therefore chosen for their depth of understanding, and for their general perceptions of sexual violence. Selecting students from multiple disciplines allowed for comparison of views and provided a multi-disciplinary aspect to the study. All students were given a brief outline in the information sheet of what the study was about, that they needed to be senior university students and that confidentiality needed to be maintained at all times. This information and criteria served as a guide for the students in their decision to take part in the study.

DATA COLLECTION

The information was obtained using focus group and individual interview methods. Two multiple-category focus groups were conducted. This design allows the researcher to explore opinions across groups/categories (Krueger, 2002). Participants were randomly placed into focus groups of eight participants each. The groups consisted of a combination of students across disciplines and were of mixed gender. The focus groups were guided by semi-structured questions, allowing room for additional insights. Five individual interviews were done to elicit in-depth responses which could not be accessed via the focus group discussions (FGDs). This information included any personal experiences that participants might not have wished to express in a group setting; however, no differences in responses were reported.

PROCEDURE

The procedure that was used to conduct the study was as follows: permission was obtained from the university's Higher Degrees and Ethics committees in order to obtain access to students; respective heads of departments received a summary of the proposal, together with the information letter containing the aims of the study, and requesting their co-operation.
in recommending students from their respective academic departments. Students who were interested in taking part in the study were contacted. With the written consent of the participants, focus groups of one hour each were conducted, while individual interviews lasted for approximately 40 minutes each. Focus groups and individual interviews were conducted in English, audio-recorded, and then transcribed by the principal researcher. At all times, the information obtained was kept confidential in a secure location.

DATA ANALYSIS

The information obtained during the FGDs and individual interviews was analysed using thematic analysis, an analytic tool used to understand and to explore the research topic qualitatively by identifying common themes and further investigating the relationships between them (Thomas & Harden, 2008; Thorne, 2000). After reading and re-reading the transcripts, the data was coded into categories and eventually into themes. The interpretation of the data allowed themes to emerge and the meaning behind them to be identified, while providing a link between them (Thomas & Harden, 2008; Thorne, 2000; Willig, 2001).

FINDINGS AND DISCUSSION

The initial part of the analysis concerned the reasons why South Africa as a society has a high prevalence of CSA and incest. All participants agreed that it is of a serious nature, and many had gained knowledge of this through media reports and academic literature. Participants were of the opinion that CSA and incest are much more prevalent than what is being reported. For instance, one respondent stated, “I think it’s very prevalent because I think there are more people being abused than we know. I think all of us know someone that has been abused you just don’t know that they are” (FGD 1). Suggested possible reasons for the high incidence of CSA were as follows.

PERCEIVED RISK FACTORS

POVERTY

Poverty was cited as the major reason for increasing rates of CSA. Participants believed that if poverty decreases, there will be a significantly lower number of reported cases of CSA and incest. Participants from the social work discipline believed that poverty is one of the leading reasons for the high prevalence as many families are often left destitute and children become vulnerable to perpetrators who target homeless children.

“Most people that don’t have jobs lives in poverty, so they lose their homes, so they tend to live on the streets. Especially if a girl or boy who becomes homeless,
anyone can come across them and feel that they can do whatever they want to them.” (FGD 1)

Child poverty remains high, with close to 67% of South African children living in poverty (Sanders, Reynolds & Lake, 2012). Six out of every 10 children in the year 2010 were living in households with a monthly income of less that R575 per person per month. Poverty or deprivation can result in a lack of access to quality health services, adequate housing, quality education, and safety and security, the vital essence of a child's well-being (Bower, 2014; Hall, Woolard, Lake & Smith, 2012; Seedat, van Niekerk, Jewkes, Suffla & Ratele, 2009; Wood, 2006).

OVERCROWDING

Poverty can produce numerous other risk factors that are perceived as direct contributors to the high prevalence of CSA and incest. Participants across all disciplines in the FGDs and individual interviews expressed the opinion that overcrowding due to the shared space of small rooms is an important risk factor to consider. A participant from the social work discipline stated that often younger siblings are forced to sleep next to older siblings. This could possibly result in older siblings crossing the boundaries of good moral judgement and wishing to experiment with their younger siblings.

“The overcrowding things can also play a role, I think. Like, you have different aged children sleeping in the same beds and things can happen. I mean, maybe the intent is not to harm, but children’s relationships and boundaries are blurred and as a result, they may do stuff with each other.” (Individual interview)

“You see people, big families, are living together in the same small house and children don’t have their privacy, and I read once that sexual abusers often say, like, the child provoked them so, like, the children being in the home with these people are dressing and washing in the same areas as these abusers which may have an influence on the situation.” (Individual interview)

Nearly two million (37%) of the children living in poverty in South Africa, live in overcrowded households with a ratio of more than two people per room excluding the bathroom, but including the kitchen (Hall et al., 2012). Overcrowding is considered an infringement of a child's privacy because they do not have the space to wash or dress themselves in private (Hall et al., 2012).

According to Higson-Smith et al. (2004), overcrowding does not allow essential separation between sexualised adults or older siblings. These conditions put children at increased risk
of CSA and incest owing to the close proximity in sleeping arrangements that overcrowding creates (Corwin & Olafson, 1993; Schechter, Brunelli, Cunningham, Brown & Baba, 2002).

Though issues of poverty and overcrowding were serious concerns to participants, overarching issues such as power and the deterioration of morals and values in society proved to be an even larger concern.

DECIPHERING THE INFLUENCE OF POWER

Participants from the psychology and women and gender studies believed that it is almost impossible to discuss risk factors without exploring the dynamics of power between the perpetrator and the child. They also stated that when men reach a certain age, they are no longer attractive, and therefore may feel the need to force themselves on younger children who are unable to fight back or refuse.

“I think it has more to do with power than we think. If they have a child just where they want them, and they can, like, almost see the fear in the child's eyes then that gives them power.” (FGD 2)

According to participants, power is not only confined to the relationship between the perpetrator and the child. It is a construct that has penetrated society and is visible in many patriarchal households in South Africa, where male figures often exhibit dominant, aggressive, and abusive behaviours towards their spouses and children (Bower, 2014; Flemming, Mullen & Bammer, 1997). They stressed that male dominance in society helps sustain the immense gender inequalities which also contribute to increased risks of CSA and incest.

“Like, I would say power does play a role, whether it’s the mother or the father, where like, a person is not receiving respect at home or at work or in society, then they just take the most available weaker person … to try and sort of gain that power, control and respect … but in actual fact they not gaining respect, it's just a way of asserting myself and then they just have to do as I say.” (FGD 1)

Power was also seen as a construct that spans age groups. The majority of the participants believed that there is a misconception that older men are the only ones who feel the need to exert power and aggression over those who are vulnerable to them.

“Like I would say it's a whole range, because even though past literature shows its older men, I think it's a whole spectrum, because when I worked in the schools you would hear of nine-year old boys, abusing five-year olds or six-year olds.” (Individual interview)
In a national school violence study conducted by Burton and Leoschut (2012), 4.7% of 5,939 learners surveyed had been sexually assaulted or raped. The study reported that violence was not a once-off encounter in schools, and the rate at which learners felt repeatedly victimised was more prevalent in threats of violence and sexual assault (Burton & Leoschut, 2012).

According to Higson-Smith et al. (2004), children are often socialised into a set of preconceived male ideologies that uphold the concepts of control, power and patriarchy. These views are reiterated by Bower (2014) who believes that the progress towards the full realisation of the rights of women and children is still undeniably slow, considering the recourses and commitment made in various pieces of legislation. She supports her argument by outlining the patriarchal nature of the South African society as it is reflected in the social constructions of masculinity and femininity, which have been and continue to be directly associated with gender-based violence (Bower, 2014).

Sociological feminist theory, according to Cossins (2000), sees the issue of power and powerlessness as the main cause of the perpetration of CSA and incest. She acknowledges theories (among them, radical feminist theory that suggests that patriarchy is the sole cause of CSA) that provide an intellectual foundation from which many perspectives may emerge.

Jewkes, Penn-Kekana and Rose-Junius (2005) conclude in a study that the status of women and girls in a community is the greatest source of vulnerability to CSA. While many authors attribute children’s vulnerability to abuse of rules of “respect”, Jewkes and colleagues (2005) suggest that the deep-rooted system of patriarchy is for the most part the cause of a girl child’s vulnerability. Sexual entitlement has also been indicated as one of the most common motivations for all types of rape. This has come to the fore in a study by Jewkes, Sikweyiya, Morrell and Dunkle (2011) which concludes that 45% of men indicated that they felt no guilt regarding their perpetration of rape. The issue of power was mainly related to males, but it was not the only risk factor that had a destructive impact on society as a whole, according to some of the participants.

DETERIORATION OF MORALS AND VALUES

A prevailing theme among participants’ responses in the FGDs and individual interviews was that there is an increased drop in morals and values in society. Participants suggested that because of the rapid decrease in good moral judgement, perpetrators find it easier to abuse because they have no moral judgement. The perpetrators choose not to distinguish between moral wrong and right, and choose to act on impulse and there is no remorse. Participants from the EMS discipline also mentioned their awareness of the lack of morals and values.
“I think that there has been a moral decay in society where people just don’t know what’s right anymore.” (Individual interview)

Participants across disciplines agreed that the absence of good morals and values leads to a significant lack of respect for their fellow human beings. This, they believe, influences people to cross the boundary of acceptable behaviour and engage in the exploitation and domination of someone younger, gentler, or of a different sex to them.

“I think it’s more just a breakdown of values ... where people are like I can do whatever I want to do to whoever because that is my right ... and like for me I would narrow it down to a breakdown of values and people not knowing where to draw the line and respect also.” (FGD 1)

These responses were confirmed in the literature as many researchers believe that in order for society to prevent the incidence of CSA and incest, it should target not only individuals, but society in its entirety. Society would need to re-evaluate or maintain good morals and values that encompass the protection of those around them, thus providing an overall cohesion surrounding the protection of children (CASE, 2005). Understanding the risk factors which contribute to the perpetration of CSA and incest is vital, and also provides a solid platform for discussing potential protective factors.

PERCEIVED PROTECTIVE FACTORS

The following themes emerged in the FGDs and individual interviews from the perspective of the child, families and society, and were offered as factors that may protect children from CSA and incest.

THE IMPACT OF EDUCATION

Participants across disciplines showed consensual understanding when discussing the importance of education. Most of the participants agreed that children need to be educated regarding what is considered acceptable or appropriate behaviour and what is not. It was believed that children need to be taught by their parents and educators about possible behaviour exhibited by an adult or older sibling that may be considered inappropriate. This would help the child to become more alert, thus making it easier for them to report the abuse to an adult.

“Well, at an individual level, children need to be taught from really early on how to protect themselves. They need to be taught what is appropriate for another person to do to them and what is not.” (Individual interview).
One participant from the EMS discipline felt that parents need to stop instilling fear into children about going to the police, and that they need to educate their children. This type of education, participants believed, is key to making children aware of ways to become more vigilant.

“If anything like this happens you need to go tell the police because most of the people make their children afraid of policeman instead of making their children feel more safe to go to the police. And then when things like this does happen and they feel bad, then they know that they can go to the police or they can go to someone that they trust.” (FGD 1)

The participants reiterated that it is not only the child’s responsibility to be educated, but it is the responsibility of the family as a unit to equip themselves with the necessary knowledge and skills. Within the educational setting, Phasha (2010) conducted a qualitative study on the functioning of sexually abused learners and the role of teachers in assisting the learners in overcoming their victimisation. Learners believed that building a trusting relationship with their teachers, having teachers take more interest in their learners’ lives by facilitating home visits, and training teachers to deal with CSA more effectively, were pivotal to helping them overcome the negative impact of CSA and could serve as preventative measures.

**THE IMPORTANCE OF GOOD PARENTING**

Good parenting was a theme widely agreed upon by participants within the social work discipline. The participants felt that good parenting skills need to be consistently practised in the home. They suggested that this type of behaviour involves being emotionally connected with their children on a level where the children would be able to talk to them about anything that is of concern. They also recommended that parents need to be

“present. They need to be able to know where their children are at all times. They must learn better parenting skills and, like, know that this guy, for example, shouldn’t be around my child.” (FGD 2)

They also noted that too often parents become so busy in their daily lives, dealing with their own personal dilemmas that they forget to be aware of their children’s whereabouts. In situations like this, the participants felt that perpetrators saw an opportunity to abuse. Participants also reported that children are often left with caregivers without knowing that the caregivers are mentally incapable of taking care of their children. In these instances, financial constraints may compel parents to do so, but this opens the door for abuse to take place.
“But also know who the people are that their children are going to, like, say if the child now goes to go play next door by Johnny, then the parents must know who Johnny is and who is his parents and, like, who is at home. Then maybe not so much abuse would take place.” (FGD 2)

Though the influence on perceived protective factors for the child as an individual and the family as a unit was of pronounced significance, participants felt that society too has a pivotal role to play in the prevention of CSA and incest.

SOCIETY’S AWARENESS AND EMPOWERMENT

An overall theme that emerged in participants’ responses was that communities, government and society at large need to find ways to raise more awareness about CSA and incest. They felt that by educating the nation, one might be able to establish lower rates of CSA and incest. A participant from the women and gender studies discipline specifically mentioned that the government needs to teach parents how to speak to their children openly about their body parts in a positive light. This should be done so that if anything does occur, children are aware of what is considered acceptable and unacceptable. Through making people in the community more aware of the risks involved, one can empower communities and families to be more vigilant in identifying these risk factors when they do occur.

“As far as society goes, there needs to be more education about child abuse and the extent of it. I don’t think people realise what going on.” (Individual interview)

A participant from the psychology discipline in the individual interviews stated that the influence and importance of cultural beliefs and practices within the South African context should not be overlooked. The participant felt that people’s beliefs and practices often vary within cultural and ethnic groupings, therefore to a large extent, a cultural practice is regarded as a guideline for behaviour that people inherit as members within a society. This could often serve as a sufficient basis for perpetrators and exploiters to justify their actions thereby disguising the abuse they inflict on innocent children.

“But in some cultures you sometimes can’t report it because you will get a punishment, things like that.” (FGD 1)

This participant therefore revealed that society needs to decipher and in turn empower themselves as to which cultural norms and practices are fundamentally causing the subordination of women and children.
These responses were confirmed as many researchers believe that in order for society to prevent the incidence of CSA and incest, it should not only begin within individuals, but within society (Mathews, Loots, Sikweyiya & Jewkes, 2012). Society also needs to adopt sufficient community infrastructures and leadership which contribute to a greater sense of hope among community members, thus increasing the awareness of safety (Ahmed, Seedat, van Niekerk & Bulbulia, 2004). Across all disciplines, participants felt that the most significant change in the reduction of CSA cases may be brought about by the enforcement of laws.

**LAWS AND REGULATIONS**

There was a considerable amount of response from participants regarding the laws in South Africa. All participants in the FGDs agreed that in terms of jail sentences, the government is not doing enough to stop perpetrators from abusing. A participant from the social work discipline explained how she recently discovered that if a perpetrator committed incest, as opposed to having sexual relations with a non-member of the family, they received a lower sentence. They said that this sends out the wrong signal to perpetrators who abuse children within their own family because it would be assumed that they would probably receive a minimum amount of jail time.

“I think harsher sentences for sexual offenders are needed. It creates a safe environment in which a child could disclose if they are being abused and the perpetrator could be in court before another child is harmed.” (Individual interview)

Participants also maintained that the government needs to re-implement the death penalty, as this might cause perpetrators to stop and reconsider their actions before sexually abusing a child. Overall, there seemed to be great concern among the participants regarding the punishment perpetrators receive after being convicted of CSA or incest.

“Stricter laws with abuse because I think that some laws are a bit lenient so they allow for certain things, because sometimes they require some evidence and I mean what girl wants to say look I’m being abused.” (FGD 1)

According to Gallinetti (2004), there are many problems with the South African criminal justice system. She suggests a multidisciplinary approach whereby the South African Police Services (SAPS), the National Prosecuting Authority, social welfare services and civil society need to coordinate strategies cohesively to bring about the rightful prosecution of child sexual offenders. These policy documents, protocols and guidelines are readily available, but are *not* being implemented. A common reason for this is that they have
not been made legally enforceable, and therefore there is no accountability (Gallinetti, 2004). Jamieson, Proudlock and Nhenga-Chakarisa (2012) blame the major backlog of applications that social workers and courts are faced with from families applying for foster care in order for them to access a higher child support grant (CSG) as one of the reasons for the delay and inadequate services and interventions for abused children.

REHABILITATION PROGRAMMES FOR PERPETRATORS

Participants also expressed their concern about what happens to convicted perpetrators once they enter jail and once they are released. As a possible solution to the rate of perpetrators re-offending, participants, especially within the psychology discipline in the FGDs, stressed that when perpetrators are convicted and sent to jail for crimes related to CSA and incest, additional programmes need to be put in place in order for rehabilitation to occur. Participants felt that not enough attention was being paid to perpetrators in jail as recidivism is high. They emphasised that whatever psychological issues the perpetrator had that led them to commit acts of abuse before entering prison would still be there when they were released. More time and effort should therefore be put into rehabilitation to prevent re-offending.

“Prisons don’t really rehabilitate. Like, our prison system does not really rehabilitate, they just put people there for 15 years or 25 years and then you come out and you still have the same problem you had when you went in. So if the person was struggling with whatever they were struggling with when they went in that led them to abuse children, just because they have been in prison doesn’t mean that they have changed ... um ... and I think that they should be open about it.” (FGD 1)

The John Howard Society (2002) did a study on sexual offending programmes which found that by providing long-term intensive treatment for offenders, the rate of re-offending may be reduced. These intensive treatments would have to involve behavioural conditioning and cognitive skills training. An emphasis should be placed on relapse prevention, and long-term follow-ups should be recommended. A meta-analysis done on re-offending found that across several studies, child sexual offenders who have been treated re-offend at a rate of 19%, while child sexual offenders who have not been treated re-offend at a rate of 27%. The treatment was able to reduce re-offending by a significant 8%, saving the innocence of numerous children (John Howard Society, 2002). These percentages reflect the rate of re-offending; the higher the percentage, the higher the rate of re-offending.
RECOMMENDATIONS

Participants’ perceptions revealed that a multi-faceted society such as South Africa can benefit from the resources we have, such as good laws and regulations, social service agencies, local NGOs and schools to implement sufficient preventative strategies to reduce CSA and incest. These strategies and programmes need to be focused on limiting the negative experiences children have by educating them and providing families – especially those living in poverty – with sufficient parental skills training, provide rehabilitation programmes to convicted CSA offenders, and implement laws and regulations which strive to prevent such abuse from occurring. The influence of power was something that the participants felt extended beyond age groups, and materialised mainly in the behaviour of boys and men. This, they felt, was a direct contributor to CSA and incest, especially within the South African context. They believed that society at large needs to encourage the adoption of good morals and values as this provides a buffer against behaviours associated with the perpetration of CSA and incest.

CONCLUSION

The findings of this study revealed that perceived risk factors associated with CSA and incest are poverty and a lack of access to resources, overcrowding, the influence of power in a patriarchal society, and the deterioration of morals and values. The findings also revealed that the perceived protective factors associated with CSA and incest included the importance of education, good parenting skills, society’s awareness and empowerment, the implementation and monitoring of laws and regulations, and the development and strengthening of rehabilitation programmes for perpetrators. As future professionals within South Africa, students’ knowledge-based perceptions on this social issue are significant when determining ways to prevent the sexual abuse of children and identify factors that place children, families and communities at an increased risk. The purpose of this study was to increase the knowledge around this subject area, while providing awareness and offering a possible basis for future preventative strategies.

REFERENCES


Reviews

Skin bleaching: A neglected form of injury and threat to global skin

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ABSTRACT

Skin bleaching is the use of creams, gels, or soaps to lighten the skin and is known to cause a number of injuries, many of which are potentially life-threatening. Despite the growing body of research identifying the harmful effects of skin bleaching, this topic has received little attention in the field of public health. This study provides a literature review of the current research documenting health risks associated with skin bleaching. Articles pertaining to skin bleaching practices and their health consequences were extracted from databases that publish research in the biomedical, public health, and social science literatures. Twenty-two articles that met search criteria were analysed and thematically coded using a priori research questions examining: (1) harms caused by skin bleaching, (2) alignment with accepted definitions of injury, and (3) suggestions for prevention and intervention. Results indicate skin bleaching poses a serious public health risk and threat to skin safety. Researchers have called for increased governmental and individual/community intervention to address this growing problem. Limitations of the study include the small number of scholarly publications on the topic, limited epidemiological study of the topic, and various selection biases in individual articles that may skew results.

Keywords: skin safety, skin bleaching, skin lightening, injury prevention, literature review, public health

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INTRODUCTION

SKIN BLEACHING: AN UNDERSTUDIED AREA OF INJURY PREVENTION

Unintentional injuries represent a leading cause of morbidity and mortality around the world for people of all age groups (de Ramirez, Hyder, Herbert & Stevens, 2012; Krug, Sharma & Lozano, 2000). Efforts to prevent injuries to the skin, or skin safety, is one of the most understudied areas of public health (Krejci-Manwaring, Kerchner, Feldman, Rapp & Rapp, 2006) despite recent research documenting that dermatological threats are on the rise worldwide (Jardine et al., 2012). While exposure to ambient solar radiation among vulnerable populations accounts for a large proportion of skin traumas in the form of cancer (Armstrong & Kricker, 2001; Mahé, Ly, Aymard & Dangou, 2003) many other potential skin hazards also exist such as occupational-related skin exposures (National Institute for Occupational Safety and Health, n.d.), community skin exposures, and skin damage resulting from practices such as bleaching. Considering the potential harms that can occur from exposure to hazardous chemicals, comparatively little research attention has been given to the widespread global practice of dangerous skin bleaching.

SKIN BLEACHING: A THREAT TO SKIN SAFETY

Skin bleaching, the cosmetic application of topical ointments, gels, soaps and household chemicals to de-pigment or lighten (bleach) the skin complexion, has emerged as an increasingly frequent practice during the past three decades (Charles, 2003). The global production and marketing of skin bleaching products has become a multi-billion dollar industry, servicing all parts of the world, particularly low- and middle-income countries (Glenn, 2008) making it one of the most common forms of potentially harmful body modification practices worldwide (Charles, 2003; Hall, 1995; Pitché, Kombaté & Tchangai-Walla, 2005). Obtaining prevalence rates on skin bleaching practices is challenging, but researchers have made progress in estimating rates in different parts of the world. Estimates range from 24% of women in Japan (Glenn, 2008) and 30% of women in Ghana (Blay, 2010), to alarming rates in India where 60–65% of women use skin bleaching methods (Glenn, 2008), or even higher rates estimated in cities like Lagos, Nigeria where up to 77% of women may use skin bleaching products (Kpanake, Muñoz Sastre & Mullet, 2010). Although the use is global, African women are some of the biggest consumers of skin bleaching products, which include potentially harmful local concoctions made from household chemicals (e.g. automotive battery acid, bleach, laundry detergent, toothpaste), and over-the-counter creams, putting them at greater risk for a variety of negative health outcomes (del Giudice & Yves, 2002). In an effort to explore these negative health outcomes, an emergent body of literature is examining the potential dangers of mis- and prolonged use of bleaching agents (Ajose, 2005; Ly et al., 2007; Mahé et al., 2003; Olumide et al., 2008).
Numerous potentially life-threatening consequences of skin bleaching have been identified in the literature (Boyle & Kennedy, 1986; Mahé et al., 2003; Ramsay, Goddard, Gill & Moss, 2003). Dermatologic consequences include: skin lesions, epidermal atrophy (thinning of the skin), exogenous ochronosis (bluish black tissue discoloration), eczema, bacterial and fungal infections, dermatitis (skin inflammation), scabies (contagious skin disease), warts, acne, sun damage and body odour (Ajose, 2005; Mahé et al., 2003). Further, skin bleaching can lead to fragile skin, poor wound healing, scarring and the need for corrective surgery (Ajose, 2005). Other more serious health risks include hypertension, diabetes, infertility, leukaemia (blood cancer), skin cancer, foetal toxicity (foetal poisoning), immunosuppression (suppression of a healthy immune response), renal and liver impairment and failure, Cushing’s syndrome (hormone disorder), insomnia, memory loss, tremors, speech and hearing impairment (Ajose, 2005; Lewis et al., 2010; Mahé, Ly & Perret, 2005; Petit, Cohen-Ludmann, Clevenbergh, Bergmann & Dubertret, 2006; Pitché et al., 2005). These harms extend from the acute or chronic long-term exposure to the often hazardous chemical agents that are present in bleaching products. In addition, the damage from bleaching products is often exacerbated when users mix bleaching products with household chemicals such as toothpaste, laundry bleach, detergents and even automotive battery acid, a very common practice in some settings, to try to enhance their effect (Ajose, 2005; Lewis et al., 2010; Pitché et al., 2005; Ramsay et al., 2003). However, this remains an extremely understudied practice (Lewis et al., 2012).

SKIN BLEACHING: A MISSED OPPORTUNITY IN INJURY PREVENTION

Though there are existing research studies in the medical field that have documented the health risks associated with skin bleaching, there has been little research in the scholarly public health literature on the risks associated with skin bleaching or consideration for skin bleaching as a form of injury (Lewis et al., 2012). Skin bleaching practices may, in part, be understudied because they are often not considered when injury prevention is discussed.

The U.S. Centers for Disease Control and Prevention (CDC) define nonfatal injury as, “bodily harm resulting from severe exposure to an external force or substance (mechanical, thermal, electrical, chemical, or radiant) or a submersion,” that can be either “unintentional or violence-related.” Further, the CDC defines poisoning as a subcategory of injury which results from being exposed to an exogenous substance that causes cellular injury, illness or death (Centers for Disease Control and Prevention, n.d.). An “unintentional poisoning” occurs when “a person taking or giving too much of a substance did not mean to cause harm” (Centers for Disease Control and Prevention, n.d.). Poisons can be inhaled, injected, or absorbed through the skin or mucous membranes and can result in death or disability and have devastating physical, psychological, and socio-economic consequences. Skin
bleaching is seemingly an important threat to skin safety, but largely remains outside the field of public health and is often not considered in injury prevention efforts. Given the potentially harmful consequences of skin bleaching, the current study aims to fill this gap in the literature by synthesising known data on the public health risk of skin bleaching and considering its place in injury prevention.

**WHAT THIS STUDY ADDS**

The current systematic review examines the documented health risks associated with skin bleaching and explores whether these health consequences meet the criteria, as defined by the CDC, for causing injury. This study takes a unique interdisciplinary approach by examining literature across several disciplines (e.g. biological sciences, psychology, public health) and uses qualitative content analysis to make meaning of the findings. Unlike literature reviews previously conducted on skin bleaching, the current study is methodologically rigorous and explicitly discusses the research methods and risk for bias based on the methods used. The current study examines what prevention activities have been called for by researchers to reduce the detrimental effects associated with skin bleaching. To this effect, three interrelated research questions guided this study:

1. What are the documented health risks associated with skin bleaching?
2. Do these health risks meet the public health (CDC) definition of causing injury?
3. What have these researchers, suggested, been doing to prevent injuries associated with skin bleaching?

Methods used to review the literature are next presented and then the findings are discussed in light of their implications for skin safety, injury prevention, and public health.

**METHOD**

**LITERATURE SEARCH**

Original articles examining the use of skin bleaching products, skin bleaching practices, and resultant skin trauma were obtained through a database search in August 2012. The search was performed using Medline, PsychINFO, Ebscohost Academic Search Complete, Google Scholar, and the Directory of Open Access Journals (DOAJ). The following English language keywords were used in the search of the literature: *skin lightening + health, skin bleaching + health, skin lightening + consequences, skin bleaching + consequences, skin lightening + epidemiology, skin bleaching + epidemiology.*
SELECTION OF LITERATURE

As depicted in Figure 1, the initial search resulted in 136 articles. The abstracts of these articles were then previewed by a graduate-level research assistant to determine if the studies examined the physical effects of skin bleaching. Only published articles written in English were selected for further review with no limit on date of publication. After removing articles that did not meet these criteria and any duplicate articles, 51 articles remained. These 51 articles were then further previewed to determine if their content was within the scope of the present study. Articles were excluded at this stage if they exclusively focused on laboratory procedures related to skin bleaching products (8 excluded), non-human participants (6 excluded), or focused on the sociological context of skin bleaching (15 excluded). The latter articles were considered by the authors to understand the implications of skin bleaching, but did not directly speak to the physical health consequences posed by the practice and were beyond the scope of the current review. Thus, this review comprises 22 full articles on studies pertaining to skin bleaching practices and health consequences for humans.

RISK OF BIAS

The articles systematically reviewed in this paper were subject to bias both across studies and based on the bias inherent in each individual study design. Across studies the selection criteria used may bias results; only articles written in English, published and accessible in select databases were included. This reduced the scope and diversity of information that was reviewed regarding the safety of skin bleaching products. Further, individual articles were subject to bias based on sampling procedures and study design. For example, many of the articles used non-random sampling that may not accurately represent the overall population of interest (e.g. epidemiological methods). In some studies, participants were recruited at hospitals and clinics and many of the studies included small sample sizes. These selection biases may limit generalizability of findings. Another consideration is that true experimental design is not feasible with the topic of skin bleaching since it would constitute harm to participants, limiting the ability to state direct causal links between skin bleaching and injury/disease in many cases. Further, many studies relied on participants self-report which may have skewed findings toward more socially desirable answers. Finally, because of the limited attention to skin bleaching in the scholarly literature some of the articles reviewed were published in non-peer reviewed studies or were more descriptive in nature. These potential areas for bias are further discussed as limitations of the current study in the discussion.
CONTENT ANALYSIS PROCEDURE

After the articles were compiled, they were annotated to capture key information for the study: target population, study aim, key terms, research method, identified health risks, author conclusions, recommendations for prevention, and limitations. Two additional graduate-level research assistants acted as lead coders and read the annotated article summaries and collaboratively identified initial thematic codes that answered the three research questions (i.e. health risks associated with skin bleaching, whether these health risks met the definition for causing injury, and the suggestions for prevention). Articles were assigned more than one code when appropriate. Three undergraduate research assistants then independently coded the same article summaries using the codes developed by the two lead coders. Next, these five coders (undergraduates and graduate research assistants) met to discuss the coding scheme until 100% inter-rater agreement was reached. These codes were then further reviewed by the principle investigator and a graduate level research assistant who had not been involved in the original coding process to further confirm the clarity and accuracy of the coding scheme. The identified categories which emerged from the analysis are discussed next.

RESULTS

The content analyses, based on the three research questions addressed in this study are described below.

DOCUMENTED HEALTH RISK ASSOCIATED WITH SKIN BLEACHING

The articles documented a variety of health risks associated with skin bleaching. Harm to the skin (n = 15, see Table 1) was most commonly identified. Additionally, skin bleaching products were cited for causing other forms of cell and organ diseases/abnormalities (n = 11). Seven articles coded by researchers discussed poisoning associated with high levels of toxic chemicals in skin bleaching products. Two articles described a link between skin bleaching products and birth defects/problems with offspring health. These findings are discussed in detail next.

HARM TO THE SKIN

Damage to the skin was the most frequently identified negative health outcome associated with skin bleaching (see Table 1). For example, numerous researchers reported cutaneous conditions such as acne, burns, and dermatitis associated with skin bleaching (Adebajo, 2002; Ajose, 2005; de Souza, 2008; del Giudice & Yves, 2002; Ly et al., 2007; Mahé et al., 2003; Mahé et al., 2005; Petit et al., 2006; Suzuki, Yagami & Matsunaga, 2012; Toombs,
Additionally, researchers commonly found skin bleaching to be associated with cutaneous infections caused by bacteria, fungus, and parasites such as dermatophyte infections, skin lesions, and scabies (Ajose, 2005; Akiibinu, Arinola & Afolabi, 2010; de Souza, 2008; Ly et al., 2007; Mahé et al., 2003; Petit et al., 2006; Suzuki et al., 2012). Many researchers also found skin pigmentation abnormalities such as hypo- and hyper-pigmentation, and exogenous ochronosis associated with skin bleaching (Adebajo, 2002; de Souza, 2008; del Giudice & Yves, 2002; Ly et al., 2007; Mahé et al., 2003; Petit et al., 2006; Phillips, Isaacson & Carman, 1986; Tse, 2010). Further, skin bleaching was associated with epidermal atrophy or thinning and fragility of the skin (Ajose, 2005; de Souza, 2008; Mahé et al., 2003). For example, Ajose (2005) found that Nigerians who used skin bleaching products over extended periods (6 month to 20 years) had “dermatologic consequences” including “fragile skin, for example extensive striae and telangiectasia” (p. 41).

OTHER CELL AND ORGAN DISEASES/ABNORMALITIES

In addition to harm to the skin, researchers reported changes at the cellular level associated with skin bleaching. For example, stunted Purkinje cell dendrite growth was identified as a health risk associated with skin bleaching and was coded as belonging in this category (Washam, 2011). Other health risks related to the use of skin bleaching products in this category were disruption of normal DNA functioning and changes at the gene level (Akiibinu et al., 2010; Westerhof & Kooyers, 2005). Renal and neurological complications due to mercury exposure where cited (Harada et al., 2001; Mahé et al., 2005), as well as cataracts and glaucoma (Olumide et al., 2008). Additionally, researchers described organ diseases and abnormalities associated with skin bleaching such as Cushing syndrome (Ajose, 2005; Mahé et al., 2005) and cancer (Kooyers & Westerhof, 2006).

Poisoning/toxic chemical levels in skin bleaching products

Six studies tested skin bleaching products and found that they included chemicals which have been documented as toxic or causing poisoning in humans (Copan et al., 2012; Peregrino, Moreno, Miranda, Rubio & Leal, 2011; Washam, 2011). For example, researchers reported that skin bleaching products had toxic levels of mercury (Copan et al., 2012; Harada et al., 2001; Peregrino et al., 2011; Washam, 2011), hydroquinone (Kooyers & Westerhof, 2006; Petit et al., 2006), and clobetasol (Petit et al., 2006).

BIRTH DEFECTS/PROBLEMS WITH OFFSPRING HEALTH

Two of the articles also identified birth defects/problems with offspring health as health risks associated with skin bleaching. More specifically, Mahé et al. (2005) presented initial
evidence of renal dysfunction and cataracts in new-borns related to the mother’s use of skin bleaching products. This was further evidenced by a study which found that pregnant skin bleachers’ had smaller placenta and children born at low birth weights, low cortisol levels, and higher rates of birth defects associated with mercury exposure (Mahé et al., 2007).

COMPARISON OF HEALTH RISKS ASSOCIATED WITH SKIN BLEACHING WITH INJURY DEFINITION

For the second research question, “Do these health risks meet public health (CDC) definition of causing injury?” the health risks discussed in the articles were compared to the injury definition. All but two (which did not measure health risks associated with skin bleaching) reported ways the skin bleaching products caused “bodily harm resulting from severe exposure to an external, chemical substance” in accordance with the CDC definition of injury. Six articles further met this definition, specifically identifying how skin bleaching products contained high levels of an “exogenous substance that could cause cellular injury, illness, or death.” For example, Harada et al. (2001) found that women in Kenya who used European-made skin bleaching soaps had high mercury levels “accompanied by various symptoms, such as tremor, lassitude, vertigo, neurasthenia, and black and white blots, suggesting inorganic-mercury poisoning” (p. 183). Articles made clear connections between the use of skin bleaching products and related injuries. For example, del Giudice and Yves (2002) stated that, “long-term use of these creams is responsible for a high rate of cutaneous adverse effects” (p. 69).

PREVENTING INJURIES RELATED TO SKIN BLEACHING

The third research question explored, “What have these researchers suggested should be done to prevent injuries?” All but two of the articles made suggestions for increased prevention and interventions to reduce injuries related to skin bleaching. Broadly, these researchers captured in this literature review suggested both: government interventions and individual/community interventions to reduce the prevalence of skin bleaching.

GOVERNMENT INTERVENTIONS

Researchers described the need for greater governmental bans on skin bleaching products, reduction of harmful chemicals in skin bleaching products, regulation of the sale/distribution of skin bleaching products, and research on the dangers of harmful chemicals used in skin bleaching products. For example, Kooyers and Westerhof (2006) concluded that “the risks of long-term effects (cancer) of topically applied hydroquinone may no longer be ignored. Based on the recent evidence of the potential risk, which are higher than has been assumed up until now, we plead that the use of hydroquinone as a skin lightening age will be stopped.
completely” (p. 780). Other examples include de Souza (2008) who called for increased law enforcement, surveillance and information to the consumer and Peregrino et al. (2011) who stated that “to safeguard consumer health, our research calls for an immediate mandatory regular testing program to check mercury in whitening creams and other cosmetic products that are being marketed and consumed in Mexico” (p. 2522).

INDIVIDUAL/COMMUNITY INTERVENTIONS

Researchers also called for action to reduce the prevalence of skin bleaching which included greater awareness of the dangers of bleaching (for communities, individual users, and healthcare providers), as well as the promotion of natural beauty standards, and primary prevention (prevention of skin bleaching initiation). For example, Mahé et al. (2005) indicated that skin bleaching products should not only be strictly controlled by the government but measures should be taken to inform potential users of the risks associated with these products appropriate to local cultural perceptions of the practice. Several researchers indicated that dermatologists and other health workers are critical in addressing this problem (de Souza, 2008; Westerhof & Kooyers, 2005).

DISCUSSION

The purpose of this study was to examine the existing skin bleaching research literature as it relates to skin safety and injury prevention. Answering the first research question, our content analysis found that skin bleaching practices are related to a range of serious health risks. Harm to the skin was the most widely cited health risk with the majority of the articles citing multiple ways that skin bleaching injured the skin, increasing rates of skin infection, epidermal atrophy, exogenous ochronosis/other skin pigmentation abnormalities, and additional cutaneous problems (e.g. scaring, burns, acne). These results indicate that skin bleaching, as it is currently practised, is a major threat to skin safety. Further, the literature documented that skin bleaching products currently contain toxic concentrations of chemicals such as mercury and hydroquinone which are known to cause damage to the body at cellular level (e.g. trophic diseases, DNA mutations) and injury to other internal organs. There was also alarming evidence that skin bleaching may not only harm users, but also foetal development, although research in this area is limited.

Although there was ample evidence that skin bleaching poses a serious health risk, there was a paucity of research on skin bleaching and its health effects. For example, researchers repeatedly cited a lack of knowledge on incidence and prevalence of skin bleaching and there is currently no tracking system to fill this gap to further understand the scope of this problem. This is alarming given the fact that there is initial evidence that skin bleaching
is harmful at a level that is comparable and/or exceeds the level of risk posed by other behaviours. A more nuanced understanding of skin bleaching practices and related health risks is urgent.

Results from the second research question clearly supported injuries associated with skin bleaching practices as meeting current public health definitions of injury. Further, skin bleaching as it is currently practised, can be classified as a practice that is associated with poisoning, as well as thermal and chemical damage. Some contended that health authorities do not see skin bleaching as a priority because people are not dying in masses from associated conditions, and in places with limited access to health resources, skin diseases can be a low priority (Kingman, 2005). However, injury associated with current skin bleaching practices will likely decrease quality of life and contribute significantly to sickness and health costs (Kingman, 2005). Further, the largely unregulated chemical content of skin bleaching products, especially in developing countries, (Peregrino et al., 2011) makes the direct marketing and promotion of such practices especially dangerous.

The third research question examined what suggestions have been already been made regarding prevention and interventions to address the harms of skin bleaching. Many noted that the public health response has been minimal. For example, Hunter (2011) called the public health response to skin bleaching a “missed opportunity” (p. 149). Some authors pointed to a need for government regulations including stricter bans on products and regulation of chemical content as well as community-based and cultural interventions that focus on why skin bleaching is so popular. Many advocated for consumer education regarding the dangers of the products. However, there was also criticism of efforts that focus solely on change at the individual level. For example, Hunter (2011) argued that the public health response to skin bleaching has been insufficient because it has focused on changing individual behaviour, often portraying women who bleach as uninformed and pathological, not acknowledging the real social benefits women may gain from a lighter skin tone, or institutionalised privilege based on skin colour. Conversely, focusing on government regulation alone has also been criticised and it has been noted that policy change alone is largely ineffective in changing health-risky behaviours such as skin bleaching (Lewis et al., 2010). In order to achieve success in addressing current harmful skin bleaching practices, both government and community-based approaches need to be considered. Perhaps using the best knowledge from other injury prevention models will give this important issue a push.

Considering skin bleaching under the umbrella of injury prevention would open up new avenues for prevention and intervention. Since worldwide injury prevention has decades of research on disease prevention and health promotion, skin bleaching prevention
champions may learn from studying similar attempts at curbing dangerous practices that cause injury and poisoning. For example, examination of legislative successes and failures in minimising harm associated with ambient solar radiation or in decreasing smoking rates in the United States through changes in legislation could be potential areas that inform public health prevention regarding skin bleaching. Additionally, interventions have been developed which help people modify behaviours that put them at risk for ambient solar radiation (e.g. tanning) (Glanz, Geller, Shigaki, Maddock & Isnec, 2002; Horsham et al., 2014). In this case, guidelines have also been developed to inform both consumers and practitioners about how to minimise the health consequences (e.g. skin cancer) related to their behaviour (e.g. Cooley & Quale, 2013). Evidence-based practices in injury prevention (e.g. Dowswell, Towner, Simpson & Jarvis, 1996) and interventions that have worked to decrease other threats to skin safety should be modified and applied to current skin bleaching practices. This could take the form of the development of safer skin bleaching products (i.e. formulas with non-toxic or less toxic chemicals), guidelines on the safe usage of skin bleaching products (i.e. coupling them with solar protection to minimise harm to skin), and educational/behavioural interventions on skin safety.

LIMITATIONS

While these findings may be helpful in advancing the knowledge on skin bleaching and prevention, a number of limitations of the current study should be noted. First, this study was based on the textual analysis of articles written across a variety of disciplines which may be a strength but also poses a potential limitation. Because new research is constantly being published and database searches can be nuanced regarding how articles are categorised and accessed, it is unlikely that the current study is exhaustive. Second, the limited number of articles that examine skin bleaching may represent only a small part of the picture on the subject. The literature more than likely represents the issue from the viewpoint of a small segment of those most affected while the practice is a global phenomenon. Third, to make textual analysis more feasible, annotated article summaries were textually coded rather than the full articles. This may have led to the loss of some article content. However, to minimise the changes of misinterpretation, the original full text articles were referenced frequently to insure the most accurate interpretation. Finally, although there is evidence that skin bleaching poses a serious health risk, many of the studies employed methods that do not allow causal conclusions to be made. As recommended by the researchers, further research is needed to more fully understand the adverse health effects of skin bleaching products. Studies of the health consequences of homemade skin bleaching products are especially lacking.
PREVENTION IMPLICATIONS

Given the paucity of research conducted on skin bleaching, future directions in research, policy, and practice are limitless. In particular, given the initial evidence that it is a potentially life threatening practice, further research documenting the long-term consequences is necessary. Moreover, understanding even basic information on the practice of skin bleaching is needed. The incidence and prevalence of skin bleaching remains largely unknown and injury caused by these practices is not tracked. Initial studies have attempted to estimate the prevalence of skin bleaching practices in specific countries and areas (Adebajo, 2002; Dadzie & Petit, 2009), however, no large-scale and comprehensive epidemiological surveys have been conducted to date.

Given the fact that skin bleaching should be examined under injury prevention in public health, future recommendations for practice may include incorporating skin bleaching into injury prevention efforts in areas where the practice is most prevalent. Finally, researching similar models of injury prevention may provide new ways to advance skin bleaching prevention efforts. The global phenomenon of skin bleaching remains prevalent worldwide. The serious public health risks that these practices pose cannot be ignored and incorporating efforts to prevent skin bleaching under the umbrella of global injury prevention may give this understudied topic a necessary boost.

REFERENCES


Figure 1: Flow chart of articles included in analysis (42)
Table 1: Broad thematic codes: Skin bleaching health risks and recommendations for intervention

<table>
<thead>
<tr>
<th>Author Name</th>
<th>Year</th>
<th>Type of Study/Subjects</th>
<th>Health Risk</th>
<th>Prevention Recommendation</th>
<th>Limitations/Risk of Bias</th>
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<tbody>
<tr>
<td>Adebajo</td>
<td>2002</td>
<td>Survey randomly administered to 450 traders of skin bleaching products in Lagos, Nigeria regarding their usage and side effects of skin bleaching products</td>
<td>Harm to the skin</td>
<td>Government interventions, Individual/Community interventions</td>
<td>Selection bias: recruitment limited to traders of skin bleaching products (not operationally defined) recruited from select market places in Nigeria, Self-report questionnaire</td>
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<tr>
<td>Akiibinu</td>
<td>2010</td>
<td>Correlational study which examined the levels of C-reactive protein, albumin, total antioxidant potential total plasma peroxides, oxidative stress index, and malondialdehyde in 30 people who used skin bleaching products for approximately 5 years as compared “controls” who did not use skin bleaching products</td>
<td>Harm to the skin, Cell and organ diseases/abnormalities</td>
<td>Individual/Community interventions</td>
<td>Selection bias: recruitment limited to schools/markets within the city of Ibadan, Oyo State, Nigeria, Biased comparison group: comparison group recruited in different setting (university staff) likely to be dissimilar to treatment group in other ways, not discussed as a limitation</td>
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<tr>
<td>Author(s)</td>
<td>Year</td>
<td>Study Description</td>
<td>Findings/Interventions</td>
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| Ajose     | 2005 | Survey administered to male and female patients at skin clinics in Lasuth, Lagos, and Nigeria regarding their usage and side effects of skin bleaching products | **Harm to the skin**  
**Cell and organ diseases/abnormalities** | Individual/Community interventions  
Non-empirical study  
Selection bias: recruitment limited to one clinic  
Sample size not identified |
| Copan et al. | 2012 | Case study which investigated the mercury levels in urine samples of 22 participants in 5 households where unlabelled skin bleaching products were found in the United States | **Poisoning risk** | Individual/Community interventions  
Case-study design limits generalizability |
| del Guidice et al. | 2002 | Epidemiological survey and clinical study of 685 women from Dakar, Senegal regarding their usage and side effects of skin bleaching products | **Harm to the skin** | Individual/Community interventions  
Selection bias: recruitment limited to hospital (outpatient and emergency department) |
| de Souza | 2008 | Discussion of the history and implications of skin bleaching in Africa | **Harm to the skin**  
**Government interventions**  
**Individual/Community interventions** | Non-empirical |
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<th>Author(s)</th>
<th>Year</th>
<th>Description</th>
<th>Harm to skin</th>
<th>Government interventions</th>
<th>Other Notes</th>
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<tr>
<td>Godlee</td>
<td>1992</td>
<td>Descriptive (non-scholarly) article discussing research on skin bleaching conducted in Southwark, London</td>
<td>Harm to skin</td>
<td>Government interventions</td>
<td>Individual/Community interventions, Non-empirical</td>
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<td>Harada et al.</td>
<td>2001</td>
<td>Mercury levels were tested both skin bleaching soaps and the hair samples of 65 soap-users in Kenya</td>
<td>Cell and organ diseases/abnormalities</td>
<td>Government interventions</td>
<td>Limited sample size, Non-equivalent comparison group</td>
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<tr>
<td>Kooyers &amp; Westerhof</td>
<td>2006</td>
<td>Literature review regarding the biochemistry and toxicology of skin bleaching agents hydroquinone, benzene and related molecules</td>
<td>Cell and organ diseases/abnormalities</td>
<td>Government interventions</td>
<td>Non-empirical, Methods and limitations not discussed</td>
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<tr>
<td>Olumide et al.</td>
<td>2008</td>
<td>Literature review regarding the health consequences of skin bleaching</td>
<td>Harm to skin, Cell and organ diseases/abnormalities, Poisoning risk</td>
<td>Individual/Community interventions</td>
<td>Non-empirical, Methods and limitations not discussed</td>
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<td>Ly et al.</td>
<td>2007</td>
<td>Descriptive study regarding patient characteristics of 86 female recruited in</td>
<td>Cell and organ diseases/abnormalities</td>
<td>Individual/Community interventions</td>
<td>Selection bias: clinic based study</td>
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<td>Year</td>
<td>Study Description</td>
<td>Interventions</td>
<td>Comments</td>
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<td>2003</td>
<td>Descriptive study of product use among adult women at a dermatology clinic in Dakar, Senegal (n = 599)</td>
<td>Harm to the skin</td>
<td>Selection bias; clinic based study</td>
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<td>2005</td>
<td>Description of the practice, dangerous chemicals, and hazardous consequences</td>
<td>Harm to the skin</td>
<td>Non-empirical; Authors associated with dermatology clinic</td>
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<td>2007</td>
<td>Study of 99 pregnant women (6-9 months pregnant) in Dakar, Senegal who were examined during standard clinical examination (including blood sample for plasma cortisol levels) and surveyed regarding their use of skin bleaching products</td>
<td>Harm to the skin, Cell and organ diseases/abnormalities, Birth defects, offspring health</td>
<td>Small sample size limits the relevance of dose-related effects</td>
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<td>2007</td>
<td>Study of 99 pregnant women (6-9 months pregnant) in Dakar, Senegal who were examined during standard clinical examination (including blood sample for plasma cortisol levels) and surveyed regarding their use of skin bleaching products</td>
<td>Harm to the skin, Cell and organ diseases/abnormalities, Birth defects, offspring health</td>
<td>Small sample size limits the relevance of dose-related effects</td>
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<td>1986</td>
<td>Described ochronosis and other skin conditions caused by use of skin bleaching products by black South Africans</td>
<td>Harm to the skin</td>
<td>Non-empirical; Did not mention interventions</td>
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<td>Author(s)</td>
<td>Year</td>
<td>Study Details</td>
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<td>Peregrino et al.</td>
<td>2011</td>
<td>Chemical study of 16 available skin bleaching agents in Mexico</td>
<td>Poisoning risk</td>
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<td>Location-specific procedures (i.e. one market in Chihuahua)</td>
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<td>Petit</td>
<td>2006</td>
<td>Descriptive study of 46 patients of African descent with skin complications</td>
<td>Harm to the skin</td>
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<td>in Paris, France</td>
<td>Government interventions</td>
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<td>Selection bias: only those that developed complications at a particular clinic</td>
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<td>Suzuki et al.</td>
<td>2011</td>
<td>Case study of a 45-year-old woman in Japan with contact dermatitis from skin bleaching agents</td>
<td>Harm to the skin</td>
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<td>Did not mention interventions</td>
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<td>Case study: limited generalizability</td>
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<td>Toombs</td>
<td>2007</td>
<td>Non-empirical discussion on hydroquinine and compilation of cases of exogenous ochronosis in the US</td>
<td>Harm to the skin</td>
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<td>Tsz Wah Tse</td>
<td>2010</td>
<td>Non-empirical review of the safety profile of hydroquinine</td>
<td>Harm to the skin</td>
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<td>Washam</td>
<td>2011</td>
<td>Non-empirical report regarding 13 women with elevated mercury levels found in NYC</td>
<td>Cell and organ diseases/abnormalities</td>
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<td>Westerhof &amp; Kooyers</td>
<td>2005</td>
<td>Non-empirical review of long-term side effects of continued use of hydroquinone</td>
<td>Poisoning risk</td>
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Helmet use and associated factors among motorcyclists in the Association of Southeast Asian Nations: Prevalence and effect of interventions

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ABSTRACT

The Association of Southeast Asian Nations (ASEAN) is a collaborative group of 10 countries (Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam) located in South-East Asia. In most ASEAN countries, the majority of road users are motorcyclists. Globally, among the 20 countries with the greatest rate of motorcycle deaths per 100,000 population, six ASEAN countries are included. A review found that across ASEAN countries, a significant proportion of motorcycle drivers did not wear a helmet; this ranged from 11–20% in Indonesia, 35–66% in Cambodia, 25–97% in Laos, 24.2–67.2% in Malaysia, 44.2%–56.3% in Thailand, and 10–70.1% in Vietnam, while rates of non-use of helmets were higher in motorcycle passengers, ranging from 25% in Vietnam, 38.1% in Malaysia, 48–80% in Indonesia, 72–81% in Thailand, and 91% in Cambodia. The effect of the introduction of helmet-use legislation for drivers and passengers was evaluated in Thailand and Vietnam, and in both evaluations, significant increases in helmet use were found compared to prior the legislation in both countries. Multisectoral or community intervention programmes in localised areas and schools in Laos and Thailand also lead to significant increases in motorcycle helmet use. The effectiveness of the enforcement of helmet laws in ASEAN countries was rated an average of 7.2 (on a scale of 0 to 10, where 0 is not effective at all and 10 is highly effective), with the lowest (5) in Malaysia and the highest (10) in Brunei Darussalam. Stricter enforcement of mandatory helmet laws for two-wheeler riders (both drivers and pillion-riders) are needed.

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Keywords: helmet use, motorcycle, prevalence, interventions, Southeast Asia.

INTRODUCTION

The Association of Southeast Asian Nations (ASEAN) is a collaborative group of 10 countries (Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam) located in South-East Asia (Association of Southeast Asian Nations, 2013). It is a populous region with a population of over 604 million and wide variability in socioeconomic and development indicators (ASEAN Community in Figures, 2013). The ASEAN Declaration aims “to accelerate the economic growth, social progress and cultural development in the region through joint endeavours in the spirit of equality and partnership in order to strengthen the foundation for a prosperous and peaceful community of Southeast Asian Nations.” (Association of Southeast Asian Nations, 2013, p.1). In most ASEAN countries, the majority of road users are motorcyclists. Four ASEAN countries (Vietnam = 358/1000, Malaysia = 332/1000, Indonesia = 251/1000, and Thailand=251/1000) have more than one motorcycle for every four people (World Health Organization, WHO, 2013a). Globally, among the 20 countries with the greatest rate of motorcycle deaths per 100,000 population, six ASEAN countries are included, with the highest in Thailand (28 per 100,000 population), Lao R. (15), Vietnam (15), Malaysia (15), Cambodia (12), Indonesia (6 per 100,000 population) (WHO, 2013a). The six countries in ASEAN where the majority of all vehicles are motorcycles (two- or three-wheeled) are Vietnam (96%), followed by Cambodia (83%), Indonesia (83%), Myanmar (82%), Laos (81%) and Thailand (61%) (WHO, 2013a). Motorcyclists (two- or three-wheeled) comprise a large proportion of all road traffic deaths in ASEAN, 74% in both the Lao People’s Democratic Republic and Thailand, followed by 67% in Cambodia, 59% in Malaysia and 46% in Singapore (see Table 1).

Motorcycle users sustain the most serious injuries leading to disability and death around the head and neck (WHO, 2013a). Wearing a standard, good quality motorcycle helmet can reduce the risk of death by 40% and the risk of serious injury by over 70% (Abbas, Hefny & Abu-Zidan, 2012; WHO, 2013b). Introducing and enforcing legislation on helmet use is effective at increasing helmet-wearing rates and reducing head injuries (Hyder, Waters, Phillips & Rehwinkel, 2007; Kanitpong, Boontob & Tanaboriboon, 2008; Liu et al ., 2008).

“While there has been progress in adopting helmet legislation globally, only about one-third of countries rate the enforcement of helmet laws as ‘good’ (8 or above on a scale of 0 to 10), showing that this critical component of road traffic safety remains neglected” (WHO, 2013a, p.18). There is a need to better understand the status of helmet use and associated factors among motorcyclists in ASEAN, which can in turn provide information
for appropriate helmet use interventions in the region. In this paper, we aim to assess the current status, associated factors and interventions of helmet use in ASEAN.

METHODS

LITERATURE SEARCH

We performed a search of the literature to identify reviews and original studies that reported data regarding the prevalence and interventions of motorcycle (two- or three-wheeled) helmet use in ASEAN countries. The relevant studies were identified through the following electronic databases: MEDLINE, EMBASE, SCI Web or Science, NLM Gateway, Google scholar and Google. The last search was conducted in November 2013. In addition, relevant articles from the list of references of the initially retrieved papers were identified.

Two different search strategies using the following keywords were used: (1) Helmet use AND motorcycle AND country (Brunei Darussalam OR Cambodia OR Indonesia OR Lao PDR OR Malaysia OR Myanmar OR Philippines OR Singapore OR Thailand OR Vietnam) OR Asia, (2) Helmet use AND motorcycle AND intervention AND country (Brunei Darussalam OR Cambodia OR Indonesia OR Lao PDR OR Malaysia OR Myanmar OR Philippines OR Singapore OR Thailand OR Vietnam) OR Asia.

SELECTION OF STUDIES

Inclusion criteria for the selection of studies included studies reporting on the prevalence of motorcycle helmet use and intervention evaluations to promote motorcycle helmet use in ASEAN countries. There were no restrictions on date and language of the paper. The two authors of the current article evaluated the eligible studies obtained from the literature search. They independently scanned all abstracts and obtained full-text papers. In cases of discrepancy, agreement was reached by consensus.

DATA EXTRACTION

The two authors of this paper independently extracted and compiled the data. For each study that met the inclusion criteria, details were extracted on study design, characteristics of study population, non-helmet use prevalence, risk factors for non-helmet use, intervention methods and outcomes.
RESULTS

MOTORCYCLE HELMET LAWS AND LAW ENFORCEMENT

All ASEAN countries have a national motorcycle helmet law. In one country (Cambodia) the motorcycle helmet law does not apply to passengers, and one country (Laos) does not have mandated helmet standards (WHO, 2013a). The effectiveness of the enforcement of helmet laws in ASEAN countries was rated an average 7.2 (on a scale of 0 to 10, where 0 is not effective at all and 10 is highly effective), with the highest (10) in Brunei Duressalam, followed by Singapore and Vietnam (9), Indonesia and Laos (8), Myanmar and Thailand (6), and Malaysia and Philippines (5) (WHO, 2013a).

PREVALENCE AND RISK FACTORS OF MOTORCYCLE HELMET USE

Across ASEAN countries a significant proportion of motorcycle drivers did not wear a helmet; this ranged from 11–20% in Indonesia, 35–66% in Cambodia, 25–97% in Laos, 24.2–67.2% in Malaysia, 44.2%–56.3% in Thailand, and 10-70.1% in Vietnam. While rates of non-use of helmets were higher in motorcycle passengers, ranging from 25% in Vietnam, 38.1% in Malaysia, 48–80% in Indonesia, 72–81% in Thailand, and 91% in Cambodia (see Table 3). Cambodia is the only ASEAN country where helmet use among motorcycle passengers is not legislated, which may explain the high rates. Barriers of helmet use identified in the various studies in the region included sociodemographics (younger age, lower education), being unaware of helmet law, lack of helmet law enforcement, physical discomfort, type of road, travelling time (shorter distance), and helmet characteristics (quality, price, style, experience) (see Table 2).

MOTORCYCLE HELMET USE INTERVENTIONS

The effect of the introduction of helmet use legislation for drivers and passengers was reported in Thailand and Vietnam, and in both evaluations significant increases in helmet use were found compared to prior the legislation in both countries. Multisectoral or community intervention programmes in localised areas in Laos and Thailand lead to significant increases in motorcycle helmet use in pre-post and controlled study designs. Finally, a school-based programme combining teacher and student safety education and the provision of helmets in Laos lead to significant increases in helmet use as compared to prior to the intervention (see Table 3).

DISCUSSION

The review found that across ASEAN countries a significant proportion of motorcycle drivers and passengers did not wear a helmet. This compares with similar rates in other
countries in Asia, e.g., China (Li, Li & Cai, 2008; Xuequn, Ke, Ivers, Du & Senserrick, 2011), India (Sreedharan, Muttappilimyalil, Divakaran & Haran, 2010) and Iran (Zamani-Alavijeh, Bazargan, Shafiei & Bazargan-Hejazi, 2011). Barriers of helmet use found in this review also compare with other studies such as sociodemographics (younger age, lower education) (Nakahara, Chadbunchachai, Ichikawa, Tipsuntornsak & Wakai, 2005), location and time of day (Li, Li, Cai, Zhang & Lo, 2008; Nakahara et al., 2005), and helmet-related characteristics (Ali, Saeedmj, Ali & Haidar, 2011; Oginni, Ugboko & Adewole, 2007). The effectiveness of the enforcement of helmet laws in ASEAN countries was rated highest in Brunei Duressalam, Singapore and Vietnam. According to Law, Noland and Evans (2013), improvements in democracy, education levels, per capita income, political stability, and income distribution within a country, as probably in Brunei Duressalam and Singapore, are associated with the enactment of the motorcycle helmet.

Several evaluations in Thailand and Vietnam have found that the introduction of helmet use legislation for drivers and passengers significantly increased motorcycle helmet use. This is in line with the global findings that the introduction and enforcement of legislation on helmet use is effective at increasing helmet-wearing rates (Kanitpong et al., 2008; Mayrose, 2008). Further, a number of multisectoral or community intervention programmes addressing helmet use have shown promising results and could ensure sustainability (Moghisi, Mohammadi & Svanström, 2014b), and should be investigated in future studies with rigorous study designs. In addition, a school-based programme combining teacher and student safety education and the provision of helmets in Laos showed promising results, and should also be further investigated and implemented (Germeni et al., 2010). Community-based initiatives using the safe community concept could help to promote the use of helmets among motorcyclists at the population level (Lindqvist, Timpka & Schelp, 2001; Moghisi, Mohammadi & Svanström, 2014a). A safe community can include multi-sectoral groups, including private, governmental, social, educational and other organisations committed to work on the promotion of helmet use in the form of law enforcement, public education, and accessibility to helmets among motorcyclists at the local level in a safe community initiative (Moghisi et al., 2014a, 2014b). Similar interventions, including stakeholders in road safety, jointly intensifying education and enforcement on helmet use have been proposed for helmet use promotion of motorcyclists in Africa (Akaateba, Amoh-Gyimah & Yakubu, 2014; Forjuoh, 2003).

**STUDY LIMITATIONS**

This review has several limitations. Helmet use was measured by observation and by self-report, while self-report is an unreliable measure of helmet use. For some of the ASEAN countries no or not sufficient information could be found on the issue of motorcycle
helmet use. In addition, the use of non-standard helmets was not assessed (Kulanthayan, See, Kaviyarasu & Nor Afiah, 2012). A recent review found that “the widespread use of non-standard helmets in low- and middle-income countries may limit the potential gains of helmet use programmes” (Road Traffic Injuries Research Network Multicenter Study Collaborators et al., 2013, p.158).

CONCLUSION

The review of the available evidence found sub-optimal motorcycle helmet use in ASEAN countries, and half of the ASEAN countries rated their motorcycle helmet law enforcement as sub-optimal. National and community interventions to increase motorcycle helmet use seem effective and promising and should be expanded.

REFERENCES


Table 1: Asian Association country characteristics (source: WHO, 2013a)

<table>
<thead>
<tr>
<th>Country</th>
<th>Population</th>
<th>Income group</th>
<th>Gross national income per capita in US$</th>
<th>[Total registered vehicles] Motorized 2- and 3-wheelers</th>
<th>Death by road user category: Riders motorized 2- or 3-wheelers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei Darussalam</td>
<td>398 920</td>
<td>High</td>
<td>31 800</td>
<td>[349 279]</td>
<td>?</td>
</tr>
<tr>
<td>Cambodia</td>
<td>14 138 255</td>
<td>Low</td>
<td>750</td>
<td>[1 652 534]</td>
<td>67%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>239 870 944</td>
<td>Middle</td>
<td>2 500</td>
<td>[72 692 951]</td>
<td>36%</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic</td>
<td>6 200 894</td>
<td>Low</td>
<td>1 010</td>
<td>[1 008 788]</td>
<td>74%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>28 401 017</td>
<td>Middle</td>
<td>7 760</td>
<td>[20 188 565]</td>
<td>59%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>47 963 010</td>
<td>Low</td>
<td>?</td>
<td>[2 326 639]</td>
<td>23%</td>
</tr>
<tr>
<td>Philippines</td>
<td>93 260 800</td>
<td>Middle</td>
<td>2 060</td>
<td>[6 634 855]</td>
<td>?</td>
</tr>
<tr>
<td>Singapore</td>
<td>5 086 418</td>
<td>High</td>
<td>39 410</td>
<td>[9 45 829]</td>
<td>46%</td>
</tr>
<tr>
<td>Thailand</td>
<td>69 122 232</td>
<td>Middle</td>
<td>4 160</td>
<td>[28 484 829]</td>
<td>74%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>87 848 460</td>
<td>Middle</td>
<td>1 160</td>
<td>[33 166 411]</td>
<td>60%(^1)</td>
</tr>
</tbody>
</table>

\(^1\) For motorcyclists (Le et al., 2002)
<table>
<thead>
<tr>
<th>Country, Reference</th>
<th>Sample and assessment methods</th>
<th>Non-helmet use</th>
<th>Risk factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cambodia</strong> (Bac hani et al. 2012, 2013; Roe-hler et al. 2013)</td>
<td>Helmet observations (day and night) in 6 observation sites in 5 provinces. (Drivers: N = 454 026; Passengers: N: 229 948) Roadside interviews on knowledge, attitudes, and practice in 3 locations</td>
<td>36.2% Drivers 93.6% Passengers</td>
<td></td>
</tr>
<tr>
<td><strong>Indonesia</strong> (Conrad et al., 1996)</td>
<td>Street observations and interviews with motorcyclists (N = 9242) and passengers (N = 3541) in Yogyakarta</td>
<td>11% Drivers 80% Passengers 45% Drivers did not wear helmets correctly</td>
<td>At night, physical discomfort and absence of police surveillance.</td>
</tr>
<tr>
<td><strong>Indonesia</strong> (Indonesia Road Safety Report, 2012)</td>
<td>Sub-national study on helmet wearing in 2007</td>
<td>20% Drivers 48% Passengers</td>
<td></td>
</tr>
<tr>
<td><strong>Laos</strong> (WHO, 2013a)</td>
<td>Road Safety Project (2008)</td>
<td>40% All riders 25% Drivers</td>
<td></td>
</tr>
<tr>
<td><strong>Laos</strong> (Ichikawa et al., 2013)</td>
<td>Roadside observation in front of a school gate in Vientiane. Of the 195 students who commuted by motorcycle, 45 (23%) drove it themselves</td>
<td>97% Drivers</td>
<td></td>
</tr>
<tr>
<td><strong>Malaysia</strong> (Kulanthayan et al., 2000)</td>
<td>Observations of 500 motorcyclists in a typical Malaysian town</td>
<td>24.2% Drivers</td>
<td></td>
</tr>
<tr>
<td><strong>Malaysia</strong> (Tan, 2004)</td>
<td>Observations of 107 motorcyclists and 21 passengers in Kuala Lumpur</td>
<td>29.0% Drivers 38.1% Passengers</td>
<td>Younger age</td>
</tr>
<tr>
<td>Location</td>
<td>Study Description</td>
<td>Percentage</td>
<td>Details</td>
</tr>
<tr>
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<tr>
<td>Malaysia</td>
<td>Observation of helmet use among primary school children (7–12 years) (Urban: N = 309; Suburban: N = 493) in Klang Valley</td>
<td>74.4% urban 60.0% suburban</td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>Observations of 1 150 motorcycle drivers</td>
<td>42.3 %</td>
<td></td>
</tr>
<tr>
<td>Myanmar</td>
<td>Health department, study in Yangon General hospital (2011)</td>
<td>49.5% All riders</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>Survey of road users in the Province of Guimaras</td>
<td>49% All riders 13% Drivers</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>1,725 students, aged 15–21 years, from 3 vocational schools in Chiang Rai Province completed a classroom-based computer-assisted self-interview (ACASI)</td>
<td>Of men 72.7% and of women 64.4% reported unprotected motorcycle riding 3 times or more in the past week</td>
<td>History of ever riding after having had 3 or more alcoholic drinks; living with the family, and having ever had a traffic accident</td>
</tr>
<tr>
<td>Thailand</td>
<td>Helmet wearing behaviour and attitudes among 224 Naresuan University students</td>
<td>During the past six months, the majority never wore, or wore helmet sporadically such as when travelling long distance or when spotting the police. Very few reported wearing helmets whenever they travelled on motorcycles</td>
<td>Travelling short distances, for example within the campus; physical discomforts; and unnecessary. More than half of the sample agreed with compulsory helmet wearing on campus</td>
</tr>
<tr>
<td>Thailand</td>
<td>Observational survey of helmet use conducted in 30 samples in a provinces of Thailand</td>
<td>48% Drivers 84% Passengers</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Study Design</td>
<td>Sample Size</td>
<td>Helmet Use</td>
</tr>
<tr>
<td>---------</td>
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<tr>
<td>Thailand (Siviroj, Peltzer, Pengpid &amp; Morar-it, 2012)</td>
<td>Helmet use observations and interview among motorcycle drivers (N = 18,998) during four days of the Songkran festival</td>
<td>44.2% Drivers 72.5% Passengers</td>
<td>Demographics, environmental factors, helmet use experiences and attitudes and recalling a lower exposure to road safety awareness (RSA) campaign were associated with non-helmet use</td>
</tr>
<tr>
<td>Thailand (Jiwattanakulpaisarn et al., 2013)</td>
<td>Interviews on helmet use behaviour (N = 2,429 drivers, N = 1,328 passengers) in urban cities nationwide</td>
<td>40% Drivers and 72% Passengers [not always wear]</td>
<td>Drivers: non-awareness of helmet law, low risk perception of being caught, perception that the checkpoints take place at the same times and locations Passengers: non-awareness of helmet law for passengers, perception that the law was not enforced by the police</td>
</tr>
<tr>
<td>Thailand (Suriyawongpaisa et al. 2013)</td>
<td>National roadside observation (N = 945 956) at 3 252 selected sites Injured surveillance data (26 sentinel sites)</td>
<td>46.7% Drivers 80.7% Passengers 66% (Drivers &amp; Passengers)</td>
<td>Lower conviction rate and lower police density</td>
</tr>
<tr>
<td>Vietnam (Hung, Stevenson &amp; Ivers, 2006)</td>
<td>Roadside observations of motorcycle drivers (N = 16 560) in Hai Duong province across 37 road sites (incorporating 5 road categories)</td>
<td>70.1%</td>
<td>Female, younger age, non-compulsory roads</td>
</tr>
<tr>
<td>Vietnam (Hung, Stevenson &amp; Ivers, 2008)</td>
<td>Observed motorcycle helmet use among motorcyclists (N = 716) in Hai Duong Province</td>
<td>77%</td>
<td>Inconvenience and discomfort, younger age, riding on a non-compulsory road, shorter trips (&lt; 10 km), lower levels of education</td>
</tr>
<tr>
<td>Vietnam (Pervin et al., 2009)</td>
<td>Roadside observations (N = 18734) among adults and children in four major centres</td>
<td>1–10% Adults 46–62% 8–14 years 46–85% &lt; 8 years of age</td>
<td>The fear of neck injury (by parents of their children)</td>
</tr>
<tr>
<td>Vietnam (WHO, 2013a)</td>
<td>Helmet observation surveys in 3 provinces (Hanoi School of Public Health, 2011)</td>
<td>10% Drivers 25% Passengers</td>
<td></td>
</tr>
</tbody>
</table>
Table 3: Interventions of helmet use in ASEAN countries

<table>
<thead>
<tr>
<th>Country, Reference</th>
<th>Intervention</th>
<th>Evaluation design and sample</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia (Kim et al., 2013)</td>
<td>School-based programme: Teacher and student safety education (Helmets for Kids) and helmet provision to all students in selected elementary schools</td>
<td>Pre- and post-intervention of 6 853 observations of helmet use</td>
<td>Helmet use increased from 0% at baseline to 87% at 10–12 weeks follow-up.</td>
</tr>
<tr>
<td>Laos (Slesak et al., 2011)</td>
<td>Multisectoral road safety campaign in one district: Offering motorcycle helmets at 50% cost; road safety education; demonstration of helmet protectiveness, helmet law enforcement</td>
<td>Pre- and post-intervention of 4 247 observations of helmet use</td>
<td>Helmet use increased from 11,2 to 42,5%.</td>
</tr>
<tr>
<td>Thailand (Swaddiwudhipong, Boonmak, Nguntra &amp; Mahasakpan, 1998)</td>
<td>Community-based health education on injury prevention and control including traffic laws and effectiveness of helmet use for motorcycle riders delivered by village health communicators and mass media</td>
<td>Pre- and post-intervention of interview-assessed motorcyclists (N = 1141) in intervention villages in 3 subdistricts and motorcyclists (N = 1297) in control villages in 3 subdistricts</td>
<td>Self-reported always wearing of helmets increased to 32,8% in motorcyclists in intervention villages compared to 14,1% in control villages.</td>
</tr>
<tr>
<td>Thailand (Ichikawa, Chadbunchachai &amp; Marui, 2003)</td>
<td>Helmet act for motorcyclists and passengers in December 1994: enacted, publicity raising, fining law-breakers</td>
<td>Pre- and post-intervention of 7 208 pre-act motorcycle crashes and 4 794 post-act motorcycle crashes from the trauma registry of a regional hospital</td>
<td>Helmet-wearers increased from 4,5% to 22,6%.</td>
</tr>
<tr>
<td>Country</td>
<td>Author(s) (Year)</td>
<td>Intervention Details</td>
<td>Pre- and post-intervention Observations</td>
</tr>
<tr>
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<td>----------------------------------------</td>
</tr>
</tbody>
</table>
| Thailand| (Ratanavaraha & Jomnonkwao, 2013) | Community participation approach:  
- Community leader meetings to find solutions for helmet-wearing problems 
- Two campaigns to provide understanding of the benefits of helmet use and proper decisions of purchasing and wearing helmets (with the use of mass media, print media, specialized media and activity media) | Pre- and post-intervention of 3874 driver and 2004 passenger observations of helmet use in 3 districts | Increase of 13.2% in the rates of helmet usage. |
| Vietnam | (Le & Blum, 2013) | Helmet legislation to require all motorcycle riders and passengers to wear helmets from end of 2007 | Pre- and post-intervention of interview national survey of helmet use among 7 584 youth (15–24 years) in 2004 and 10 044 youth (15–24 years) in 2009 | Self-reported frequent helmet use increased from 26.2% in to 73.6%. |
| Vietnam | (Nguyen, Passmore, Cuong & Nguyen, 2013) | Helmet legislation to require all motorcycle riders and passengers to wear helmets from end of 2007 | Pre- and post-intervention of 665 428 drivers and passenger observations of helmet use in 45 sites nationally between November 2007 and February 2011 | Increase in correct helmet wearing from 40.1% to 92.5%. |
Conference Report

XXI International Safe Communities Conference: “Prevention to build safer environments”, Mérida, Yucatán, Mexico

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Mexico is a country where crime (including drug wars, homicide, assault, rape and murder) is considered amongst its most urgent concerns (Albuja, 2014). Juarez in Mexico is known as the murder capital of the world where approximately 70,000 people were killed as a result of intense criminal violence over a six-year period between 2007 and 2012 (Pan, Widner & Enomoto, 2012). Mérida, Yucatán, on the other hand, has remained a state with very low criminality and is regarded as the safest city in Mexico (Piccato, 2013). Mérida provided the backdrop for the 21st International Conference on Safe Communities. In 2009, the International Safe Communities broadened its reach to Mexico, and engaged with a large group of Mexican citizens who decided to mobilise resources in cooperation with the authorities and governments in Mexico in pursuit of solutions to the safety issues faced by their citizens. The XXI International Safe Communities Conference is an outcome of this initiative which sought to promote a local culture of injury and violence prevention.

The conference was held from 21–23 October 2013 and hosted by The National Association of Councils for Citizen Participation in Mexico. This Safe Communities Conference was the only conference to date to be hosted in two languages, English and Spanish, as a result of the overwhelming attendance of Mexican and Latin American delegates’ and their respective countries’ commitment to building safer environments and promoting a culture of safety promotion. The focal theme of the conference was Prevention to build safer environments, with more than 300 delegates in attendance from over 24 countries, including the United States, Columbia, Peru, Korea, Australia, and South Africa. The conference provided a dynamic platform for the exchange of ideas, experiences and thoughts in the interest of safe communities. Exposure to available information and successes reflected by presenters highlighted the necessary realities communities face in identifying local risks, and implementing preventative measures to reduce the high injury, illness, and mortality rates.

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The conference’s keynote addresses encapsulated the essence of the conference as well as the Mexican approach to building safe communities. Mr Marcos Fastlicht, President of the National Association of Councils for Citizen Participation, stressed the importance of encouraging citizen participation as a driver of development in Latin America and in particular Mexico. Dr Manuel Mondragón y Kalb, Commissioner of National Security and personal representative of the President of Mexico, in his opening speech emphasised the importance of every citizen’s contribution towards constructing safer environments. He stated that this is one of the fundamental principles in the prevention of crime in order to build safer communities. Dr Antonio Luigi Mazzitelli, regional representative of the United Nations Office on Drugs and Crime (UNODC), believed that making prevention the focus of efforts to create safe communities is what will distinguish Mexico from the rest of the world. He commented that having a proactive rather than a reactive stance will lead to their success in establishing safe communities and preventing crime and violence in the country. He also noted that in the city of Mérida alone over 800 citizens volunteer their services in support of building safe communities.

The conference’s scientific programme had a strong emphasis on the Latin-American experience and provided a platform to highlight work on strengthening citizen action and issues of prevention. Presenters shared their success stories in their communities and countries through thematic oral sessions and interactive poster sessions. These sessions focused on strategies of prevention such as institutional initiatives, community organisation, communication, surveillance systems and security in public places. In addition to this, presentations focused on issues pertaining to road safety, injury prevention, youth and elderly safety, as well as challenges and barriers that promote a culture of prevention.

A Safe Community Certifier Centre meeting complemented the XXI International Safe Communities Conference and was also held on the 22nd of October 2013 and attended by certifier centre representatives from around the globe. The meeting concentrated on the quality issues surrounding the indicator development as well as the process to which newly designated communities and their organisations need to adhere in order to become accredited. This meeting was hosted by the WHO Collaborating Centre on Community Safety Promotion which has since 1989 formally designated and accredited members of the WHO Safe Communities Network, including 220 communities across 30 countries. There are 100 communities currently working towards designation as a Safe Community.

The conference coincided with the celebrations of the rich cultural heritage and traditions in Mérida and foregrounded the team effort of Mexican governmental and non-governmental stakeholders and role players in the pursuit of safe communities. Prof Leif Svanström, Chair of the WHO Collaborating Centre on Community Safety Promotion, commended Mexico as
a leading example of safe communities. In the concluding sessions the mayor of Mérida, Mr Concha Barrera, echoed his commitment together with his municipality in the city of Mérida to obtain certification as a safe community. He believes that Mérida will lead by example by employing best practices in terms of initiatives for prevention and citizen participation which will ultimately have a high impact on its citizens.

REFERENCES

