Prevention of Domestic Violence against Women in sub-Saharan Africa: a library based evaluation of the effectiveness of health promotion strategies

by

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Table of Contents

Abstract ...........................................................................................................................................v

CHAPTER 1: INTRODUCTION ........................................................................................................1
  1.1 Background of the Study ........................................................................................................1
  1.2 Scope of the Study ...................................................................................................................7
  1.3 Relevance of the Study .........................................................................................................8
  1.4 Aim and Objectives of the Study ..........................................................................................9

CHAPTER 2: METHODS .................................................................................................................11
  2.1 Type of Study .......................................................................................................................11
  2.2 Research Question Formulation .........................................................................................13
  2.3 Eligibility Criteria ................................................................................................................14
  2.4 Literature Search ................................................................................................................17
    2.4.1 Electronic Search ...........................................................................................................17
    2.4.2 Searching Other Sources ............................................................................................19
  2.5 Data Management and Analysis .........................................................................................20
    2.5.1 Data Extraction and Management ...............................................................................21
    2.5.2 Assessment of Methodological Quality of Included Studies ......................................22
    2.5.3 Data Synthesis .............................................................................................................22
  2.6 Framework for Interpretation of Results ............................................................................23
  2.7 Ethical Considerations ........................................................................................................24
CHAPTER 3: FINDINGS .................................................................26

3.1 Selection of Studies ..........................................................26

3.2 Description of Studies ......................................................28

3.3 Knowledge and Awareness of Domestic Violence ...............29

3.4 Acceptance of Domestic Violence ......................................31

3.5 Socio-economic Empowerment of Women .........................34

3.6 Methodological Quality of Studies ......................................35

CHAPTER 4: DISCUSSION ..........................................................39

4.1 Implications for Policy, Practice and Research ......................40

  4.1.1 Policy and Practice ......................................................40

  4.1.2 Research .................................................................42

4.2 Study Limitations ............................................................43

4.3 Conclusion .................................................................45

Reference List ........................................................................46

Appendices ..............................................................................75
List of Tables and Figures

Table 1- Research Objectives formulation using the “SMART Objectives Template ……10
Table 2- Research Question formulation using PICO and FINER Approaches ………..14
Table 3- Final Electronic Search ..............................................................................18
Table 4- Main Characteristics of Included Studies ..................................................28
Table 5- Review Protocol .........................................................................................78
Table 6- Data Collection Form ..................................................................................79
Table 7- Inclusion Criteria ........................................................................................79
Table 8- Exclusion Criteria .......................................................................................80
Table 9- Search Terms ...............................................................................................81
Table 10- Preliminary Electronic Search .................................................................82
Table 11- Characteristics of Included Studies ...........................................................85
Figure 1- An Integrated Ecological Framework for Prevention of Domestic VAW …….24
Figure 2- Flow of Information through Different Phases of Literature Search Process ……27
Figure 3- Flow Chart of a Cochrane Systematic Review ...........................................77
Abstract

**Background:** Domestic violence against women is a major public health problem that affects the physical, sexual, mental, and social wellbeing of more than one third of all women globally. Women in low resource settings including sub-Saharan Africa are at higher risk for domestic violence mainly due to prevailing gender inequity norms that promotes high acceptance of domestic violence against women. Therefore, this study evaluates the effectiveness of health promotion strategies in the primary prevention of domestic violence against women in sub-Saharan Africa.

**Methods:** A systematic literature review of 11 studies (5 randomised controlled trials, 2 quasi-experimental and 4 qualitative studies) that met the eligibility criteria was carried out. The studies were primarily located using EBSCOhost (CINAHL Complete, CINAHL Plus with Full Text, eBook Collection (EBSCOhost), E-Journals, and MEDLINE with Full Text); PubMed; and Cochrane databases.

**Findings:** The main findings of the review suggests that the effectiveness of health promotion strategies is to a large extent influenced by a combination of individual-, relationship-, and community- level factors including gender and community-based networks.

**Conclusion:** It is therefore recommended that integrated economic empowerment and health education/training interventions that actively engage men alongside women should be incorporated into local, national and regional programmes for primary prevention of domestic violence against women in sub-Saharan Africa.

**Keywords:** Women; sub-Saharan Africa; Health Promotion; Domestic Violence.
CHAPTER 1 – INTRODUCTION

1.1 Background of the Study


Consequently, the term gender-based violence (GBV) is used to describe the disproportionate occurrence of domestic VAW compared with violence among men, thus, domestic VAW is an integrated gender inequality, human rights and social issue (UNGA 1948, WHO 1997, Okoloff & Dupont 2005, Nnadi 2012, UN Women 2012a, The Secretary-General’s UNiTE to End Violence against Women Campaign (UNiTE Campaign) 2013, United Nations

A WHO multi-country study on the prevalence of domestic VAW in 10 selected countries illustrates that between 15% (Japan) to 71% (Ethiopia) of ever-partnered women aged 15-49 years reported domestic VAW in their lifetime (WHO 2002b, WHO 2005c). However, the study was not comprehensive enough to include diverse cultures and regions of the world. Hence, WHO (2013a) in a more recent and rigorously conducted systematic review on the global and regional estimates of the domestic VAW describes the global lifetime prevalence of domestic VAW aged 15-49 years who have been ever-partnered to be 30% (95% confidence interval (CI) = 27.8% to 32.2%). The study further illustrates that the prevalence of domestic VAW was highest in the WHO African region (37%) and lowest in the Western Pacific region (23%) (WHO 2013a). However, the likelihood that these estimates were


On the other hand, extensive literature exists on the risk and protective factors for domestic VAW; collectively referred to as the social determinants of domestic VAW that operates across multiple (individual, relationship, community and societal) levels (Heise 1998, WHO 2002c, UNGA 2003, Fischer 2004, Commission on Social Determinants of Health (CSDH) 2008, CDC 2010, Dixon & Graham-Kevan 2011, Kiss et al 2012). Consequently, previous studies have shown that the main social determinants of domestic VAW include cultural and social norms; poverty; level of education; attitudes accepting domestic VAW and inequality;

Therefore, health promotion involving health education, behavior change communication, socio-economic empowerment, capacity/skills building, advocacy etc have been extensively recommended by the WHO and other experts in the field of domestic VAW for improving, protecting the social determinants of domestic VAW; leading to the promotion of healthy relationships (without abuse of power) between men and women (WHO 1986, WHO 2002c, UNGA 2004, WHO 2004b, United Nations Division for the Advancement of Women (UNDAW) 2005, WHO 2005c, Michau 2007, UNFPA 2007, WHO & LSHTM 2010, Heise 2012, UN Women 2012b). Furthermore, a public health approach to primary prevention of domestic VAW illustrates that success in primary prevention of domestic VAW is more likely to result from health promotion strategies that are multi-faceted in nature (combination of various activities such as training, community mobilization etc); integrated with other relevant programmes (HIV/AIDS, antenatal care, microfinance etc); and targeted at multiple levels of the social determinants of domestic VAW (Close to Home Domestic Violence
Prevention Initiative (Close to Home) 2003, UNGA 2007, CDC 2008, UN Women 2011c, CDC 2012a, Department for International Development (DFID) 2012, UN Women 2012c, Michau 2013, VPA 2013b). However, the evidence that supports the effectiveness of health promotion strategies in primary prevention of domestic VAW is insufficient; there are only few systematic reviews that have been carried out, most of which mainly included studies from high income settings (Hester & Westmarland 2005, UN 2006b, WHO 2009e, WHO 2010, WHO & LSHTM 2010, WHO 2012, Fellmeth et al 2013, JIBC 2013).

Notably, the use of education and skills-based strategies that involves educating young married people on relationships, gender equity, and HIV/AIDS for primary prevention of domestic VAW is supported by evidence of effectiveness from Canada, United States of America (USA) and United Kingdom (UK) (Hester & Westmarland 2005, UN 2006b, Cornelius & Resseguie 2007, WHO & LSHTM 2010, WHO 2012b, JIBC 2013). Furthermore, increasing evidence mainly from Australia, Eastern Europe and Central Asia suggests that health promotion strategies that actively engage men to change their attitudes towards the acceptability of domestic VAW hold promise (Crooks et al 2007, WHO 2007a, UNFPA 2009, Australian Institute of Social Relations (AISR) 2010, UNFPA 2010, Well et al 2013). However, evidence to support the effectiveness of such health promotion strategies is lacking. Similarly, existing evidence from low- and middle- income settings suggests that health promotion strategies involving combined microfinance/gender equality training targeted at both women and men (Bott et al 2005, Pronyk et al 2007, Vyas & Watts 2009, Dalak 2011, IRC 2012b, WHO 2004c, WHO 2012b) and community-based initiatives that seek to change gender inequity norms especially in rural communities (Michau 2003, UNDAW 2005, Michau 2007, WHO 2009, Paluck & Ball 2010, DFID 2012, Linos & Kawachi 2012, Michau 2012) hold promise in the primary prevention of domestic VAW.
However, there is insufficient evidence from well conducted reviews to support the effectiveness of such health promotion strategies in primary prevention of domestic VAW in sub-Saharan Africa.

Therefore, it is against this background that the research question this study seeks to answer is “What is the effectiveness of health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa?”

1.2 Scope of the study

In order to keep this study relevant, focused and manageable within time constraint and word-limits, the scope of the study was narrowed to focus on primary prevention initiatives for domestic VAW in sub-Saharan Africa. Consequently, the review will not include secondary prevention initiatives for addressing domestic VAW. Initially, the setting for this study was Nigeria and other countries within the sub-Saharan Africa region having similar socio-economic, cultural, political and environmental conditions for domestic VAW with Nigeria. However, this would have greatly increased this study’s potential for selection bias; especially, when selecting studies for inclusion in the review. Based on discussions with the assigned supervisor, the decision was made to change the setting of the study to the entire sub-Saharan African region. This way the risk of selection bias during the literature search would be minimized. Also, this study will not involve other forms of domestic violence such as domestic violence against children (United Nations Children’s Fund (UNICEF) 2000, UNICEF 2007, Mikton & Butchart 2008) and domestic violence against men (CDC 2012e, WHO 2012b).

Furthermore, evaluation of effectiveness in this study refers to outcome evaluation involving use of appropriate estimates of effect size (including risk ratios (RR) and percentages (%)) of
relevant domestic VAW-related outcomes that could be attributed to the health promotion strategies reported in the included studies (Bott et al 2005, Harvey et al 2007, Coulthard et al 2010, WHO & LSHTM 2010, García-Moreno & Watts 2011, Centre for Research & Education on Violence against Women & Children 2012, WHO 2012b, Fellmeth et al 2013). Therefore, the scope of this study does not include economic evaluation (evaluation of cost effectiveness) (Drummond et al 2005, National Institute for Health and Care Excellence (NICE) 2010, CDC n.d.).

1.3 Relevance of the Study

This study promises to raise awareness on domestic VAW as a major public health problem in sub-Saharan Africa; however, it could be useful for a number of reasons. Based on background of study and to the best knowledge of this study’s author, this is the first review to collate and evaluate the effectiveness of health promotion strategies for primary prevention of domestic VAW across multiple countries within the sub-Saharan Africa region. Consequently, the study promises to add to the existing knowledge base on primary prevention health promotion strategies for ending VAW, especially in low-resource settings such as sub-Saharan Africa.

It is intended that evidence generated from this study would be translated into meaningful practice, policy and research. Specifically, the findings of this study would be disseminated to public health practitioners (as target audience) working on gender equality issues in sub-Saharan Africa; through relevant journals such as Violence Against Women (VAW) peer-reviewed. This will facilitate this study’s potential to contribute to improving evidence-based health promotion (EBHP) practice, policy-making and future research on primary prevention of domestic VAW.
1.4 Aim and Objectives of the Study

The primary aim of this study is “to identify effective health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa”.

The specific objectives of the study include: -

1. To identify health promotion strategies that successfully increased knowledge and awareness on domestic VAW (prevalence, types, consequences, preventive services etc) in sub-Saharan Africa.

2. To identify health promotion strategies that successfully changed attitudes of both men and women towards acceptability of domestic VAW (wife-beating, forceful sexual intercourse, progressive reporting of cases etc) in sub-Saharan Africa.

3. To identify health promotion strategies that successfully promoted socioeconomic empowerment of women (joint house-hold decision-making, increased income/reduced poverty, active participation in social groups, etc) in sub-Saharan Africa.

The specific objectives of this study were carefully formulated based on the SMART (specific, measurable, achievable, realistic and time-bound) approach to developing research objectives (De Vet et al 2005, Armstrong et al 2007, Higgins & Green 2011, CDC 2012b, The University of Sheffield n.d.). Table 1 below illustrates the key components and the stepwise process involved in setting the SMART research objectives (CDC 2012b).
Table 1- Research Objectives formulation using the “SMART Objectives Template” (Adapted from: CDC 2012b)

**AIM:** To identify effective health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa.

**Not-so-SMART objective 1:** To identify health promotion strategies that increased knowledge and awareness on domestic VAW in sub-Saharan Africa.

<table>
<thead>
<tr>
<th>Key Component</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S</strong>pecific - What is the specific task?</td>
<td>Identify relevant studies that investigated the effectiveness of health promotion strategies in increasing knowledge and awareness on domestic VAW in sub-Saharan Africa.</td>
</tr>
<tr>
<td><strong>M</strong>easurable - What are the standards or parameters?</td>
<td>Number of health promotion strategies that successfully led to increased knowledge and awareness on domestic VAW in sub-Saharan Africa; based on key domestic VAW parameters such as prevalence, types, consequences and preventive services.</td>
</tr>
<tr>
<td><strong>A</strong>chievable - Is the task feasible?</td>
<td>Yes, with sufficient academic research skills, and proper management of time, resources and scope.</td>
</tr>
<tr>
<td><strong>R</strong>ealistic - Are sufficient resources available?</td>
<td>Yes, with adequate access to electronic search databases, snowballing, citation tracking and hand searching of relevant literature.</td>
</tr>
<tr>
<td><strong>T</strong>ime-Bound - What are the start and end dates?</td>
<td>Six months – between March 2013 and September 2013.</td>
</tr>
</tbody>
</table>

**SMART objective 1:** To identify health promotion strategies that successfully increased knowledge and awareness on domestic VAW (prevalence, types, consequences, preventive services, etc) in sub-Saharan Africa by September 2013.

Consequently, this study was designed in 4 chapters; namely chapter 1 (introduction), chapter 2 (method), chapter 3 (findings) and chapter 4 (discussion). Chapter 1, which was the introduction, provided detailed background of the study, definition of terms, rationale of the study, scope of the study, research question, relevance of the study and aim and objectives of the study. The remaining three chapters are presented subsequently.
CHAPTER 2 – METHODS

This chapter documents the methods of the study. It provides accurate and thorough description of the techniques, tools, and frameworks used in this study to get meaningful results and conclusion. In a logical order, this chapter provides an explanation for the type of study conducted; rationale for choosing an appropriate approach to the study; description of the formulation of research question and the eligibility criteria used for inclusion of studies. This is followed by the robust search strategy used; data extraction, management and analysis; with a description of the framework used to interpret results and ethical issues considered while conducting this study. The overall aim of this chapter is to demonstrate congruency and transparency in the methods used in this study; in a way that makes this study easily replicable.

2.1 Type of Study

A systemic literature review method was used to properly address the aim and objectives of this study. Being a library based research method, the systemic review involved summarising current and best available literature on the effectiveness of health promotion strategies for the primary prevention of domestic VAW in sub-Saharan Africa; carried out in a transparent, explicit, rigorous and replicable manner (Greenhalgh 1997b, Greenhalgh & Taylor 1997, Glasziou et al 2001, Hart C 2001, Wright et al 2007, Cronin et al 2008, Hemingway & Brereton 2009, Aveyard 2010, University of Cape Town (UCT) Libraries 2011).

Unlike the traditional narrative literature review, the systematic review conducted in this study employed scientific methods such as formulation of a well-defined research question, developing eligibility criteria for including relevant studies, as well as critical appraisal and
synthesis of evidence that seek to ensure bias is minimized in the findings and conclusion (Baumeister & Leary 1997, National Health and Medical Research Council (NHMRC) 2000, Cipriani & Geddes 2003, Collins 2005, De Vet et al 2005, Boell & Cezec-Kecmanovic 2011, Booth et al 2012). However, the systematic literature review method used in this study can equally be unhelpful, misleading or harmful if data are misinterpreted and/or handled inappropriately (Jackson et al 2004, Howitt & Cramer 2008, Yuan & Hunt 2009, Bernard & Ryan 2010, Bazeley 2013).

Consequently, the systematic approach employed in this study does not involve using statistical methods to summarize evidence from individual studies, especially since the literature search carried out did not generate data that were purely quantitative and homogenous in nature; hence, meta-analysis did not seem the most appropriate method for this study (Greenhalgh 1997b, Mulrow et al 1997, Cook & Crowther 2007, Garg et al 2008, Manchikanti et al 2009, Bernard & Ryan 2010). Therefore, the systematic approach used in this study was based on the Cochrane Collaboration protocol for conducting systematic reviews (Armstrong 2007, Higgins & Green 2011). The review protocol (see Table 5 in appendices) provided a pre-defined plan of how this systematic review was methodically carried out (Higgins & Green 2011, Simons 2011, The Cochrane Public Health Group (CPHG) 2011, The Cochrane Collaboration 2013a).

The Cochrane Collaboration protocol, compared to other systematic review approaches developed by NICE (NICE 2012) and Centre for Reviews and Dissemination (CRD 2008), has a clearly laid out structure (see Figure 3 in appendices) that allowed the rigorous application of systematic methods to minimise bias (Jadad & Haynes 1998, Bath & Gray 2009, Higgins & Green 2011, Booth et al 2012). But, the strict adherence to the Cochrane Collaboration’s systematic review method requires ample amount of time, funds, skilled
review teams, and regular peer-reviewing of the systematic review process by an established Advisory Group (see Figure 3 in appendices) (Jackson et al 2004, Waters et al 2006, Armstrong 2007, Doyle & CPHG 2009, Higgins & Green 2011, Jackson n.d.). However, adequate supervision and feedback from the assigned supervisor at various stages of the study compensated the purpose of regular peer reviewing.

2.2 Research Question Formulation

A clear, well-defined and answerable research question was carefully and thoughtfully formulated was using the PICO (population, intervention, comparison, and outcome) framework and FINER (feasible, interesting, novel, ethical and relevant) criteria (see Table 2) (Khan et al 2005, Beitz 2006, Lipowski 2008, Aslam & Emmanuel 2010, LSHTM Library and Archive Service 2013).

The research question was derived from the gap in existing literature on domestic VAW and made more explicit using the PICO framework (Fineout-Overholt et al 2005, Hooper-Lane et al 2005, Booth 2006b, Ciliska 2008, Lipowski 2008, Aslam & Emmanuel 2010, Jacobs et al 2012). Notably, the use of the FINER criteria was used alongside the PICO framework to ensure that the formulated research question is ethically sound, interesting and promises to produce innovative findings to the evidence base on domestic VAW (Hulley et al 2007, Aslam & Emmanuel 2010, Farrugia et al 2010). The PICO framework compared to other frameworks such as the SPICE (Booth 2006b), ECLIPSE (Wildridge 2002) and STARLITE (Booth 2006a) was most appropriate for this study because it provides a more population-driven approach for addressing domestic VAW in sub-Saharan Africa using primary prevention initiatives (Aslam & Emmanuel 2010, Farrugia et al 2010).
The well-formulated research question guided the rest of the methodology especially the eligibility criteria, generation of search terms, and conclusion of the study.

Table 2 – Research Question formulation using PICO and FINER Approaches
(Adapted from: Aslam & Emmanuel 2010)

<table>
<thead>
<tr>
<th>PICO</th>
<th>FINER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P = Population</strong> - Women in sub-Saharan Africa</td>
<td><strong>F = Feasible</strong> – Sufficient academic research skills, time, and resources; and manageable scope</td>
</tr>
<tr>
<td><strong>I = Intervention</strong> - Health promotion strategies for primary prevention</td>
<td><strong>I = Interesting</strong> – Sufficient passion for the topic - domestic VAW, which is a global public health issue of interest.</td>
</tr>
<tr>
<td><strong>C = Comparison</strong> – Pre- and post-primary prevention intervention</td>
<td><strong>N= Novel</strong> – Innovative findings; identification of effective health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa</td>
</tr>
<tr>
<td><strong>O = Outcome</strong> - Domestic Violence</td>
<td><strong>E = Ethical</strong> – Meets public health ethics of justice equality, and fairness (sub-Saharan Africa women as vulnerable population) and approved by School of Health and Human Sciences, University of Essex</td>
</tr>
<tr>
<td></td>
<td><strong>R = Relevant</strong> – Potential to contribute to EBHP practice, policy-making and future research</td>
</tr>
</tbody>
</table>

**Research Question:** What is the effectiveness of health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa?

2.3 Eligibility Criteria

In line with the Cochrane approach to systematic reviews, well-defined eligibility criteria (see Tables 7 & 8 in appendices) were developed on types of study designs, participants, interventions, and outcome measures to be considered in the present study (Armstrong 2007, Doyle & CPHG 2009, Higgins & Green 2011, Jackson n.d.).
The predetermined nature of the research question which focuses on evaluation of effectiveness guided the inclusion of randomized control trials (RCTs), that demonstrates causality of the health promotion interventions for primary prevention of domestic VAW among participants randomly exposed to the intervention (i.e. intervention group) compared to those not exposed to the intervention (i.e. control group) (Mark & Yardley 2004, Fathalla & Fathalla 2004, Waters et al 2011). Interestingly, the evidence generated from the systematic review of high quality RCTs are generally considered the highest on the hierarchy of evidences for evaluating effectiveness of interventions (Evans 2003, Fineout-Overholt et al 2005, Ciliska et al 2008, Manchikanti et al 2009, Sharma 2010, The Cochrane Collaboration 2013c).

On the other hand, the use of RCTs especially in public health and health promotion studies have been questioned on the basis of the ethical and feasibility implications (Jackson et al 2004, Nycum & Reid 2007, Resnik 2008, Doyle & CPHG 2009, Nyika 2009, Higgins & Green 2011, Jackson n.d.). Therefore, non-RCT primary studies including quasi-experimental and qualitative studies that met other eligibility criteria were considered for inclusion as they had the potential to complement the evidence from the RCTs; hence, they were relevant in answering the research question.

The population included was sub-Saharan African women within the reproductive age group (15-49 years). Domestic violence within this population is a serious public health problem, with the age group 15-49 years being a great risk factor (WHO 2002c, Watts & Mayhew 2004, García-Moreno et al 2006, O’Reilly 2007, WHO/AFRO 2010, UNiTE Campaign 2011, IRC 2012a, WHO 2013a). In addition, studies that engaged sub-Saharan African men were also considered for inclusion. Consequently, studies not conducted in sub-Saharan Africa or those that engaged women outside the reproductive age group were excluded.
The interventions of interest are health promotion strategies including health education, enabling, empowerment, mediation, improvement, or protection interventions targeted at risk/or protective factors for domestic VAW (Nutbeam 1998, WHO 1998, Carli et al 2006, Naidoo & Wills 2007, Armstrong et al, 2007, WHO 2009b). Studies that investigated secondary prevention interventions without health promotion strategies were excluded because they are not appropriate for the research question.

The outcome measures of interest were domestic VAW-related behaviourial and socioeconomic empowerment outcomes including: acceptance of domestic VAW; knowledge about risk and protective factors for domestic VAW, consequences of domestic VAW; prevalence of domestic VAW; and socio-economic empowerment/ quality of life of women. These outcome measures are important indicators for primary prevention of domestic VAW (UNiTE Campaign 2008, WHO 2009a, WHO 2009d, WHO 2009e, WHO 2012a, WHO 2013a). Studies that did not report on any of the above outcome measures were excluded.

To ensure that the present study generates both current and best available evidence (Hooper-Lane et al 2005, NHS Fife Library Services 2005, Hart C 2001), only studies published within the last ten years (i.e. 2002-2013) were included. Also, studies not published in English language were excluded, due to no familiarisation with non-English languages. However, steps were taken to actively seek the availability of English versions of studies published in non-English language. More so, to avoid language bias, language was not used as a limiter until after full-text articles were retrieved. In addition, studies that have not been peer-reviewed were excluded which supported the active finding of potentially credible data (Greenhalgh 1997a, Benzies et al 2006, Higgins & Green 2011).
2.4 Literature Search

The search of literature in the current study was integrative in nature. It consisted of electronic database searches, supplemented by searching other sources in a way that was rigorous, comprehensive, transparent, and reproducible (De Vet et al 2005, Higgins & Green 2011, Royal Berkshire Trust Library Services 2011, Shrewsbury and Telford Health (SATH) Libraries 2011).

2.4.1 Electronic Search

The effective identification RCTs, quasi-experimental and qualitative studies from relevant electronic databases was systematically carried out using a well-structured search strategy (Egger et al 2003, NHS Fife Library Services 2005, LSHTM Library and Archive Service 2013). The selected electronic databases include Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Collaboration 2013b); PubMed (National Center for Biotechnology Information (NCBI) 2013b); and EBSCOhost (including CINAHL Complete, CINAHL Plus with Full Text, eBook Collection (EBSCOhost), E-Journals, MEDLINE with Full Text) (EBSCO Industries 2013). The inclusion of eBook Collection (EBSCOhost) and E-Journals further increased the chances of finding other relevant studies especially systematic reviews that were used to supplement and enhance the review. Importantly, the EBSCOhost service was accessed through the Albert Sloman Library website of the University of Essex (The University of Essex 2013b).

Consequently, the electronic search process involved building a detailed and meaningful search strategy that consisted of a combination of controlled vocabulary thesaurus known as Medical Subject Headings (MeSH) terms (National Library of Medicine (NLM) 2012); carefully considered to be relevant to the research question (Chang et al 2006, LSHTM
Library and Archive Service 2013). This process started with the reapplication of the PICO framework to break down the research question into searchable key words, followed by mapping of each key word to appropriate MeSH terms (see Table 9 in appendices) from the newly updated MeSH database (NCBI 2013a). Initial/preliminary searches (see Table 10 in appendices) using different combinations of relevant MeSH terms (“Domestic Violence”, “Women”, “Africa South of the Sahara” and “Health Promotion”) (Yukon College Library 2006a), were used to have informed idea of the scope of the topic and types of MeSH terms used to index relevant previous studies.

Based on the results obtained from this planned effort, the final electronic search was conducted on 6th May 2013 using a well-structured and comprehensive search strategy that adequately captured the research question together with application of appropriate search limiters (see detailed literature search strategy in appendices) to identify relevant, current and best available RCTs, quasi-experimental and qualitative studies (see Table 3).

### Table 3 - Final Electronic Search (6th May 2013)

<table>
<thead>
<tr>
<th>Electronic Databases</th>
<th>No Limiters</th>
<th>1st set of Limiters</th>
<th>2nd set of Limiters</th>
<th>3rd set of Limiters</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBSCOhost: CINAHL Complete, CINAHL Plus with Full Text, eBook Collection (EBSCOhost), E-Journals, and MEDLINE with Full Text</td>
<td>228,605</td>
<td>26,431</td>
<td>457</td>
<td>48</td>
</tr>
<tr>
<td>PubMed</td>
<td>1,167</td>
<td>614</td>
<td>41</td>
<td>26</td>
</tr>
<tr>
<td>Cochrane Central Register of Controlled Trials (CENTRAL)</td>
<td>4,057</td>
<td>2,798</td>
<td>29</td>
<td>14</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>233,829</strong></td>
<td><strong>29,843</strong></td>
<td><strong>527</strong></td>
<td><strong>88</strong></td>
</tr>
</tbody>
</table>

**Search Strategy (Combination of MeSH Terms and Alternative/ Entry Terms; allowing for word variations):** "domestic violence" OR "violence, domestic" OR "family violence" OR "violence, family" OR spouses* NEXT abuse OR abuse, NEXT spouses* OR "partner abuse" OR "abuse, partner" AND wom?n AND "Africa South of the Sahara" OR "Sub-Saharan Africa" OR "Africa, Sub-Saharan" OR "Subsaharan Africa" OR "Africa, Subsaharan" AND health NEXT promotion* OR promotion*, NEXT health OR "promotion of health" OR health NEXT campaign* OR campaign*, NEXT health
But, the search strategy described above has some limitations. First, the electronic search was conducted by a single relatively inexperienced student researcher under the constraints of time, which could have increased the potential for error during the search process (Higgins & Green 2011). Also, a different researcher could have combined the entry terms, Boolean, and proximity operators differently to get better search results. Therefore, the Literature Searching and Information Skills training organized by the Albert Sloman Library of University of Essex was attended during spring term 2013 to improve the electronic search.

2.4.2 Searching Other Sources

Other sources were also searched for relevant studies to ensure that the entire literature search process was comprehensive and upholds the principle of triangulation; using different methods and many sources to get relevant data (NHMRC 2000, Egger et al 2003, SATH 2011). More so, searching for public health and health promotion literature is a very complex task that required the exploration of a variety of sources other than electronic database searching to retrieve relevant studies (Jackson et al 2004, Armstrong et al 2007, Higgins & Green 2011, Waters et al 2011). Therefore, other sources of literature searched include: - grey literature, hand searching journals relevant to the topic - domestic VAW, and manual searching - travelling to libraries.

Interestingly, ‘snowballing’ and ‘citation tacking’ techniques were collectively used to identify other relevant studies through examination of the reference list (retrospective approach) and electronic database citation (prospective approach) of the included studies respectively (Royal Berkshire Trust Library Services 2011). More so, domestic VAW-related journals such as Violence Against Women; Journal of Interpersonal Violence; and Trauma,
Violence & Abuse were hand searched to locate other relevant studies that were matched against the eligibility criteria.

Grey literature including policy documents and unpublished reports from relevant organizations such as the World Health Organisation (WHO) Institutional Repository for Information Sharing (IRIS) (WHO 2013d), UN Secretary-General's Database on Violence Against Women (UN SG’s Database on VAW) (UN Women 2011b), and Violence Prevention Evidence Base (VPEB) (Violence Prevention Alliance (VPA) (2013c) were also hand searched and used to understand the policy, practical and cultural issues related to the research question (Benzies et al 2006, Penn Libraries 2013). But, their use could potentially limit the reproducibility of the current study’s literature search strategy (Benzies et al 2006, Higgins & Green 2011). Notably, additional effort was made to manually/physically identify relevant literature from two libraries, namely: - Albert Sloman Library of University of Essex and the LSHTM library. The visit to the LSHTM library provided access to some specialist print collection of research from the Gender, Violence and Health Centre (GVHC) of the LSHTM.

2.5 Data Management and Analysis

Effective data management and analysis were especially necessary for this systematic review that involves huge amount of data. The management of data throughout the stages of literature search process leading to the synthesis of findings was planned and executed using tools and techniques appropriate for the Cochrane approach to systematic review; thereby maintaining the integrity of data in a transparent manner (Higgins & Green 2011).
2.5.1 Data Extraction and Management

In line with EBP in conducting library based research, the entire literature search process was well-documented (NHS Fife Library Services 2005, Yukon College Library 2006b, Aveyard 2010). Each conducted electronic search was saved on the respective database used for proper record keeping; which easily allowed a rerun of the searches (Yukon College Library 2006b). The reference management software EndNote (version X7) (Thomson Reuters 2013) was used to merge, organize and remove the duplicate references identified from the electronic searches.

Furthermore, literature search process from the identification to the inclusion of studies for synthesis was transparently documented and presented using the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) study flow diagram template (Moher et al 2009) (see Figure 2 in Chapter 3). For convenience, both electronic and printed copies of the included full-text articles were secured in preparation of the assessment of methodological quality, extraction and synthesis of their data. The electronic copies (in the form of portable document format (pdf)) were stored using multiple platforms including a laptop and USB data storage device.

Data from all the included studies were logically and systematically collected using a paper data collection form (Higgins & Green 2011, Jacobs et al 2012). A paper data collection form (see Table 6 in appendices) instead of an electronic version was used due to preference and convenience (Higgins & Green 2011). It was specifically designed for efficient extraction of key data relevant to the aim and objectives of this systematic review (Jacobs et al 2012). By summarizing important information, the paper data collection form served as a bridge between what was originally reported by the authors of the included studies and their presentation in the current systematic review (Higgins & Green 2011). However, the
Cochrane approach to a detailed and transparent data extraction process requires two review authors working together to independently extract the data (Doyle & CPHG 2009, Higgins & Green 2011).

2.5.2 Assessment of Methodological Quality of Included Studies

The Critical Appraisal Skills Programme (CASP) tools for RCTs (CASP 2013b) and Qualitative Research (CASP 2013a) were used to assess the methodological strengths and weaknesses of the included RCTs/quasi-experimental and qualitative studies respectively. Based on 10-11 questions contained in the CASP tools/checklists (CASP 2013a, CASP 2013b), the internal validity (also known as risk of bias), relevance and applicability of the results of included studies to the local population (sub-Saharan African Women) were systematically assessed (Ajetunmobi 2002, Ciliska et al 2008, Burl 2009, Young & Solomon 2009, Singh 2013).

On the overall, the CASP tools provided an appropriate critical appraisal framework for the present study; their applications were simple, easy-to-understand and fits with the PICO framework for answering the research question (University College London (UCL) 2011, CASP 2013, Singh 2013). However, their use required strict adherence to all the 10-11 questions on the checklists (Singh 2013). The assessment results were incorporated in the interpretation of the results and conclusion of the present study (see chapters 3 and 4).

2.5.3 Data Synthesis

A qualitative synthesis of data from the included studies was carried out (Aveyard 2010, Bernard & Ryan 2010, Silverman 2011, Bazeley 2013). The method of qualitative synthesis used is thematic analysis; which involved the familiarization with data extracted from the
included studies; assigning codes to the different data, and subsequent grouping of similar codes into identified patterns known as themes (Boyatzis 1998, Braun & Clarke 2006). The themes used in the synthesis of data were generated through an inductive approach that is data-driven compared to deductive approach that is based on theory and prior research (Fereday & Muir-Cochrane 2006, Thomas & Harden 2008).

The generation of superficial themes that don’t adequately reflect the textual data reported in the included studies and/or misinterpretation of data was minimised through improved familiarisation with extracted data (Braun & Clarke 2006, Thomas & Harden 2008, Bazeley 2013). Consequently, 3 themes were generated, namely Knowledge and Awareness of Domestic VAW; Attitudes towards Acceptance of Domestic VAW; and Socio-economic Empowerment of Women. These themes were the most recurring constructs of domestic VAW-related outcomes reported in the included studies and were used to thematically link their individual results for critical analysis (see Chapter 3).

2.6 Framework for Interpretation of Results

The interpretation of the results obtained from the thematic analysis of relevant data of the included studies was primarily guided by the Ecological Framework for Prevention of Domestic VAW (Heise 1998, WHO 2002c, Michau & Naker 2003, Harvey et al 2007, CDC 2009, VPA 2013a). This framework builds on the original Social-Ecological Model for Main Determinants of Health (Dahlgren & Whitehead 1991), it integrates the root causes/risk factors for domestic VAW across multiple (individual, relationship, community and societal) levels (see Figure 1). Consequently, the framework is an appropriate public health approach for designing and evaluating health promotion strategies for primary prevention of domestic VAW (WHO 2004b, UNDAW 2005, CDC 2008, DFID 2012, VPA 2013b).
The interpretation of the results from the included studies was carried out on the basis of success of the health promotion strategies in addressing the risk factors for domestic VAW across the multiple layers of the framework.

2.7 Ethical Considerations

Based on the Ethics Approval Process of the University of Essex (The University of Essex 2012), a proposal to carry out this study was submitted to the School of Health and Human Sciences which subsequently granted the approval for the study (Stallabrass 2013) (see appendices). In addition, academic offence including plagiarism and misinterpretation of the data from the included studies was avoided by adequate acknowledgement of authorship together with careful collection and analysis of data, which ensured that this study reflected the ethical values of honesty and transparency in research (The University of Essex 2010, The University of Essex 2013a).
In line with the WHO’s *Ethical and Safety Recommendations for Research on Domestic Violence against Women* (WHO 2001), available full-text articles of studies eligible for inclusion were carefully examined to ensure they did not violate ethical issues including approval from appropriate research ethics committee; informed-consent from participants; confidentiality; equity in research; and reduction of gender-based inequalities (Campbell & Dienemann 2001, Ellsberg *et al* 2001, Stop Violence against Women (STOPVAW) 2003, WHO 2004a, Ellsberg & Heise 2005).

Thus, effort was made to ensure that this systematic review is objective and does not cause more harm than good to sub-Saharan African women during the interpretation, representation and sharing of findings, as much as possible (Darragh & McCarrick 1998, Armstrong *et al* 2007, Resnik 2008, Tannahill 2008, Nyika 2009, Higgins & Green 2011, Resnik 2011).
CHAPTER 3 – FINDINGS

This chapter documents a description of the included studies; it begins with the results from
the selection of included studies and ends with the assessment of methodological quality of
included studies. Also, the findings from the included studies are presented under 3 broad
themes of domestic VAW-related outcomes.

3.1 Selection of Studies

A total of 233,829 records from electronic database search and 107 additional records from
other sources were identified (see Figure 2). After duplicate records were removed, abstracts
screened and limiters carefully applied; a total of 92 full-text articles were assessed for
eligibility. Of these, 8 studies (Fawole et al 2003, Pronyk et al 2006, Kim et al 2009, Abeya
2013) from the electronic database searching and 3 additional studies (Jewkes et al 2008,
Kalichman et al 2009, International Rescue Committee (IRC) 2011) met the eligibility criteria.
Specifically, Jewkes et al (2008) was snowballed from Wechsberg et al (2013), while both
Kalichman et al (2009) and International Rescue Committee (IRC) (2011) were identified
through citation tracking of Pronyk et al (2006) on PubMed database. Therefore, a total
number of 11 studies were included in the qualitative synthesis (see Figure 2) and they all
received ethical approval from relevant research ethics committee.
Records identified through database searching [EBSCOhost; PubMed; and Cochrane Central Register of Controlled Trials (CENTRAL)] (n = 233,829)

Additional records identified through other sources [snowballing; citation tracking; hand searching VAW, JIV, TVA, JFV, AVB, HCWI, BMJ, AJRH, AJM, WHO Library, UN SG’s database on VAW, and VPEB] (n = 107)

1st set of limiters applied here [203,986 records excluded]

Records after duplicates removed (i.e. at title level) (n = 29,241)

2nd set of limiters applied here [28,692 records excluded]

Records screened (i.e. at abstract level) (n = 549)

Abstracts excluded (n = 404)

‘Full-text available’ limiter applied here [53 records excluded]

Full-text articles assessed for eligibility (n = 92)

Full-text articles excluded, with reasons (n = 81)
- Lost to retrieval (full-text not free & irretrievable) = 9
- Non-primary studies (systematic reviews) = 7
- Irrelevant research designs = 12
- Uncompleted RCTs/quasi-studies (i.e. protocols) = 2
- Non-English Language = 13
- Not domestic VAW (child abuse) = 8
- Duplicates (the same studies but different title) = 4
- Wrong setting (not sub-Saharan Africa) = 11
- Wrong intervention (secondary prevention) = 15

Studies included in qualitative synthesis (n = 11)

Where:
- JIV = Journal of Interpersonal Violence
- TVA = Trauma, Violence & Abuse
- JFV = Journal of Family Violence
- AVB = Aggression & Violent Behaviour
- HCWI = Healthcare for Women International
- BMJ = British Medical Journal
- AJRH = African Journal of Reproductive Health
- AJM = African Journal of Midwifery & Women’s Health
- UN SG’s = UN Secretary General’s
- VPEB = Violence Prevention Evidence Base

Figure 2- Flow of Information through the Different Phases of the Literature Search Process (Adapted from: Moher et al 2009)
3.2 Description of Studies

This section provides the description of the 11 included studies. It is supplemented by two tables (Tables 4 & 10). Table 4 presents the study design, sample characteristics and setting of the studies in a summarised and systematic format, while Table 11 (see appendices) presents a more detailed description of the included studies including the types of intervention(s) and outcome measures reported.

Table 4- Main Characteristics of Included Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Main Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abeya et al 2012</td>
<td>Qualitative evaluation study involving 115 (55 men and 60 women) ever married/cohabited individuals with median age 30.4 years (23-48 years) in West Ethiopia</td>
</tr>
<tr>
<td>Fawole et al 2003</td>
<td>Qualitative evaluation study involving 595 married female hawkers with median age 23.5 years (18-28 years) at 6 motor parks in 3 South-western (Ogun, Oyo and Osun) states in Nigeria</td>
</tr>
<tr>
<td>Instituto Promund 2012</td>
<td>Qualitative evaluation study involving 6,500 farmers (men and women) between the age range 18-48 years working in coffee cooperatives in rural Rwanda</td>
</tr>
<tr>
<td>IRC 2011</td>
<td>RCT involving 483 men and women with average age of 37.9 years in Bujumbura rural Province Burundi</td>
</tr>
<tr>
<td>Jewkes et al 2008</td>
<td>Cluster RCT involving 2,776 (1,360 men and 1,416 women) participants aged 15-26 years in rural South Africa</td>
</tr>
<tr>
<td>Kalichman et al 2009</td>
<td>Quasi-experimental study involving 475 men with average age of 30.2 years in Cape Town South Africa</td>
</tr>
<tr>
<td>Kim et al 2009</td>
<td>Cluster RCT involving 1,409 married /cohabited women with median age of 35 years in 12 pair-matched villages in rural Limpopo Province of South Africa</td>
</tr>
<tr>
<td>Pronyk et al 2006</td>
<td>Cluster RCT involving 860 married women aged 18-46 years in 8 pair-matched villages in rural Limpopo Province of South Africa</td>
</tr>
<tr>
<td>Turan et al 2013</td>
<td>Qualitative evaluation study involving 134 pregnant women between ages 15-49 years in rural Nyanza Province Kenya</td>
</tr>
<tr>
<td>Wagman et al 2012</td>
<td>Quasi-experimental study involving 14,668 men and women aged 15-49 years from 15 communities in Rakai District Uganda</td>
</tr>
<tr>
<td>Wechsberg et al 2013</td>
<td>RCT involving 720 drug-using women aged 18-33 years in Cape Town South Africa</td>
</tr>
</tbody>
</table>
Furthermore, the 11 included studies consist of 5 RCTs, 2 quasi-experimental and 4 qualitative studies; with a total of 28,735 participants (both men and women) between the ages 15-49 years from sub-Saharan Africa (see Table 4).

Consequently, the findings of the included studies were presented under 3 major themes of domestic VAW-related behavioral change and socio-economic empowerment outcomes. These themes include: - (1) knowledge and awareness of domestic VAW; (2) acceptance of domestic VAW; and (3) socio-economic empowerment of women.

3.3 Knowledge and Awareness of Domestic VAW

Knowledge and awareness of domestic VAW was reported in 5 studies (Fawole et al 2003, Kalichman et al 2009, Abeya et al 2012, Instituto Promund 2012, Turan et al 2013) (see Table 11 in appendices). Fawole et al (2003) reports a qualitative study conducted in Southwestern Nigeria involving 595 married female hawkers with median age 23.5 years (18-28 years) that assessed the effectiveness of a 5-month workplace integrated educational and economic empowerment intervention. The participants were purposefully selected from 6 motor parks in Ogun, Oyo and Osun states (i.e. 2 each) and were exposed to 8 separate trainings on topics such as the definition, types and consequences of domestic VAW; conducted in 4 weeks. In addition, 261 of the participants were selected after the completion of trainings and enrolled into micro-credit facilities comprising the provision of loan for 4 months. Using focus group discussions (FGDs) and in-depth interviews (IDIs), Fawole et al (2003) reported a statistically significant increase in knowledge and awareness of domestic VAW consequences among married female hawkers from 38.5% at baseline to 86.7% at one-week post-training (statistical significance level (p)<0.05).
Likewise, Instituto Promund (2012) in a one-year qualitative study involving 6,500 farmers (men and women) between the ages 18-48 years from 3 local coffee cooperatives in rural Rwanda evaluates the impact of a workplace intervention. The intervention consisted of education trainings and workshops on gender equality, relationships and income generation that lasted for 7 months; followed by a community-wide domestic VAW awareness campaign conducted by the 6,500 trained farmers. Instituto Promund (2012) argue that the number of participants who agree with the statement “there are times when a woman deserves to be beaten” significantly decreased from 23% at baseline to 13% at 12-month post-intervention; with 93.4% of participants reporting increased knowledge of the types of domestic VAW in their communities (p<0.01).

Abeya et al (2012) and Turan et al (2013) both evaluated the effectiveness of community-supported interventions for prevention of domestic VAW; however, their study population differs. Turan et al (2013) included 134 pregnant women between the ages 15-49 years in rural Nyanza Province of Kenya. Abeya et al (2012) on the other hand, included 115 married/cohabited participants (55 men and 60 women) with a median age 30.4 years from East Wollega Zone of West Ethiopia. Furthermore, both interventions lasted for 3 months, involving workshops and risk assessments during antenatal clinic visits (Turan et al 2013) and educational campaign (Abeya et al 2012). Knowledge and awareness of the participants on where and how to access domestic VAW-related prevention services were reported to have increased in both studies (Abeya et al 2012, Turan et al 2013). Notably, the result was statistically significant in Turan et al (2013) study (37% at baseline to 45% at 2 months and 78% at 3 months after initiation of intervention) (p<0.05), and not significant in Abeya et al (2012) study (6% change; 95% CI 0-12; p=0.99).
Kalichman et al (2009) in a quasi-experimental study involving 475 men with average age of 30.2 years from 2 demographically similar communities in Cape Town, South Africa estimates the impact of an integrated GBV/HIV prevention intervention compared to an alcohol/HIV risk reduction intervention. Using a community-level approach, Kalichman et al (2009) assigned the participants to either the intervention group (GBV/HIV; n=242) or control group (alcohol/HIV; n=233). There was no significant difference between the two groups when compared with respect to mean score knowledge of domestic VAW (% correct) at 1-month (M (mean) = 89.5%, SD (standard deviation) = 14.4 versus (vs) M=91.0%, SD=12.3; p>0.05), 3-month (M=88.4%, SD=19.6 vs M=90.3%, SD=13.2; p>0.05), and 6-month (M=88.4%, SD=16.7 vs M=89.1%, SD=16.4; p>0.05) post-intervention respectively.

### 3.4 Acceptance of Domestic VAW


The IMAGE intervention is a women-only intervention that consisted of participatory learning curriculum on gender equity, relationships and HIV prevention that was incorporated into micro-credit meetings. Notably, the cluster design used by Pronyk et al (2006) involved the random allocation of the 8 villages (4 clusters each) into the IMAGE (n=430) and control (n=430) groups. Women in the IMAGE group when compared to those in control group
showed 49% increased likelihood to report progressive attitudes towards domestic VAW at 2-year post-intervention (adjusted risk ratio (aRR) = 1.49, 95% confidence interval (CI) 0.86-2.60, p>0.05), however, this result was not statistically significant.

Likewise, Kim et al (2009) conducted a second IMAGE study, involving 1,409 married/cohabited women with a median age of 35 years from 12 villages located in rural Limpopo Province of South Africa. In addition, the cluster RCT used by Kim et al (2009) assessed the incremental impact of the health training component of the IMAGE intervention in 3 groups (4 clusters/villages each), namely: - microfinance (MF)-only (n=549), IMAGE (n=430) and control (n=430). The results demonstrates that attitudes condoning domestic VAW at 2-year post-intervention significantly reduced by 33% among women in IMAGE compared with MF-only (aRR=0.67, 95% CI 0.50-0.90, p<0.05). However, there was no statistically significant difference when women in MF-only were compared with those in control (aRR=1.05, 95% CI 0.81-1.36, p<0.05) or IMAGE compared with control (aRR=0.73, 95% CI 0.42-1.27, p<0.05).

Furthermore, IRC (2011) in a one year RCT involving 483 men and women with the average age of 37.9 years in Bujumbura rural Province of Burundi evaluated the impact of Economic and Social Empowerment for women (EASE) programme. The EASE programme is a combination of Village Saving and Loan Association (VSLA) and discussion series known as Talking about Talk (TaT) on joint economic decision-makings at home, relationships and gender equality. Consequently, the participants were randomly allocated to either the control (VSLA-only, n=215) or intervention (VSLA+TaT, n=251) groups. The result showed a 4% decrease in acceptance of the statement “husbands can beat their wives when they deny them sexual intercourse” among women in intervention (VSLA+TaT) compared with control (VSLA-only) (RR=0.96, 95% CI 0.94-0.99, p<0.05), which was statistically significant.
Similarly, there was a significant decreased acceptance of wife-beating among married female hawkers (45.8% at baseline to 13.3% at 12-month post-intervention; p<0.05) (Fawole et al 2003) and pregnant women (53% at baseline to 19% at 3 months after initiation of intervention; p<0.05) (Turan et al 2013) respectively.

In addition, Kalichman et al (2009) argue that men in GBV/HIV intervention compared with alcohol/HIV risk reduction showed significantly less acceptance of domestic VAW at 1-month post-intervention (M=2.2, SD=0.7 vs M=2.4, SD=0.7; p=0.05) only; with difference no longer statistically significant 3-month (M=2.3, SD=0.7 vs M=2.3, SD=0.7; p>0.05) and 6-month (M=2.3, SD=0.7 vs M=2.4, SD=0.8; p>0.05) post-intervention respectively. Similarly, Jewkes et al (2008), Wagman et al (2012) and Wechsberg et al (2013) reported on integrated GBV/HIV prevention interventions.

Jewkes et al (2008) in a 2-year follow-up cluster RCT involving 1,360 men and 1,416 women aged 15-26 years in 70 villages located in rural Eastern Cape Province of South Africa assess the impact of Stepping Stones intervention. The Stepping Stones intervention is a 50-hour participatory learning on risky sexual behaviours, negotiation skills for safer sex and consequences of GBV that was compared to a 3-hour HIV prevention session (HIV-only). The 70 villages (clusters) were randomly allocated to receive either the Stepping Stones intervention (n = 35 clusters) or HIV-only control (n = 35 clusters). Consequently, attitudes condoning domestic VAW over the 2-year follow-up significantly decreased by 33% among participants in Stepping Stones compared with HIV-only group (aRR=0.67, 95% CI 0.46-0.97, p=0.036).

Wagman et al (2012) conducted a 3-year quasi-experimental study involving 14,668 men and women aged 15-49 years from 15 communities located in Rakai District of Uganda to assess the impact of Safe Homes and Respect for Everyone (SHARE) intervention. The SHARE
intervention uses multiple strategies including advocacy, community activism, trainings and special events to prevent GBV, HIV, and reduce sexual risky behaviours. Wagman et al (2012) incorporated a cluster design whereby 11 clusters were derived from a previous family planning trial and assigned into either the SHARE intervention (4 clusters, n=3,636) and control (7 clusters, n=11,032). Intolerance for domestic VAW over the 3-year follow-up period increased by 59% in SHARE intervention compared with control group (RR=1.59, 95% CI 1.06-2.46, p=0.036). This difference was statistically significant.

Wechsberg et al (2013) in a 1-year follow-up RCT involving 720 drug-using women aged 18-33 years in Cape Town, South Africa evaluates the impact of Women’s Health CoOp (WHC) intervention. WHC is a brief intervention that focuses on prevention of GBV and HIV intervention through peer-facilitated sessions; it was compared to two equal attention interventions (Nutrition and HIV counseling & testing (HCT)-only). Consequently, the 720 drug-using women were randomly allocated to either WHC intervention (n=360), Nutrition control (n=181) or HCT-only control (n=179). There was no statistically significant difference in attitudes condoning domestic VAW in WHC intervention compared with the combined nutrition and control arms at 6-month (RR=0.99, 95% CI 0.7-1.4, p=0.688) and 12-month (RR=0.99, 95% CI 0.7-1.7, p=0.788) post-intervention.

3.5 Socio-economic Empowerment of Women

Socio-economic empowerment of women outcomes were reported in 5 studies (Fawole et al 2003, Pronyk et al 2006, Kim et al 2009, IRC 2011, Instituto Promund 2012) (see Table 11 in appendices).

Socioeconomic independence of women at 12-month post-intervention was reported to have significantly increased by 39% (Fawole et al 2003) and 61% (Instituto Promund 2012)
respectively (p<0.05). On the other hand, IRC (2011) showed that ‘deciding how she spends her own income’ at 12-month post-intervention increased by 27% among women in intervention (VSLA+TaT) compared with control (VSLA-only) (RR=1.27, 95% CI 1.01-1.35, p<0.05), which was statistically significant.

Conversely, Kim et al (2009) showed that social network membership of women in IMAGE group compared with control group increased by 91%, however, this difference was not statistically significant (aRR=1.91, 95% CI 0.92-3.56, p<0.05). The difference remained not significant in MF-only compared with control (aRR=1.37, 95% CI 0.67-2.77, p<0.05) and IMAGE compared with MF-only (aRR=1.38, 0.94-2.01, p<0.05) respectively. Likewise, Pronyk et al (2006) reported more participation (85%) in social groups at 2-year post-intervention among women in IMAGE group compared with control group (aRR=1.85, 95% CI 0.95-3.61, p<0.05), however, the difference was not statistically significant.

3.6 Methodological Quality of Included Studies

All the studies had clear research aims with focused questions. Appropriate qualitative techniques including focus group discussions (FGDs) and in-depth interviews (IDIs) using semi-structured questioners were reported in all the qualitative studies (Fawole et al 2003, Abeya et al 2012 Instituto Promund 2012, Turan et al 2013). However, Instituto Promundo (2012) did not report the impact of the community awareness campaign which brings up uncertainty in their results due to reporting bias. Although, qualitative studies are not usually used to demonstrate causality (Greenhalgh & Taylor 1997, Braun & Clarke 2006, Siverman 2011), still, they provided 80% of the results analysed under the first theme ‘knowledge and awareness of domestic VAW’.
The baseline characteristics (with respect to age group, marital status, social status, and education level) of the intervention and control groups appear to be similar in all the RCTs (Pronyk et al 2006, Jewkes et al 2008, Kim et al 2009, IRC 2011, Wechsberg et al 2013) and quasi-experimental studies (Kalichman et al 2009, Wagman et al 2012). Notably, Pronyk et al (2006), Kim et al (2009), IRC (2011) and Wechsberg et al (2013) reported to have carried out proper randomisation that involved allocation concealment which was necessary to minimise potential for confounding bias, further improve comparability across both intervention and control groups and add validity to statistically significant results (Schulz & Grimmes 2002a, Delgado-Rodriguez & Llorca 2004, Viera & Bangdiwala 2007). For example, Wechsberg et al (2013) carried out proper randomization involving allocation concealment by using centralized computer approach to randomly allocate the 720 drug-using women into either the WHC intervention or control. On the other hand, the Jewkes et al (2008) failed to carry out proper randomization (no allocation concealment) as assignment of participants was performed by the research investigators.

Although, the 2 quasi-experimental studies lacked randomization, however, only Kalichman et al (2009) successfully blinded participants in the GBV/HIV intervention and alcohol/HIV control groups to minimise the potential for performance bias (Schulz & Grimmes 2002b), which was maintained until after all analyses were completed (i.e. analyst blinding). Likewise, Pronyk et al (2006), Kim et al (2009) and Wagman et al (2012) were able to achieve analyst blinding; however, they argue that the nature of their study involved active participation which made it almost impossible to hide the identity of the groups from the participants. Also, none of the studies reported blinding of field investigators/ intervention administrators.
Furthermore, the use of cluster design by Pronyk et al (2006), Jewkes et al (2008), Kim et al (2009), and Wagman et al (2012) during assignment of participants into intervention or control groups had the potential of minimizing contamination bias due to spread of intervention or control effects to the opposite direction (Chuang et al 2002). However, only Pronyk et al (2006), Jewkes et al (2008) and Kim et al (2009) maintained the cluster design in the analyses of results, hence, their effect estimates are more likely to be less biased (Chuang et al 2002, Delgado-Rodriguez & Llorca 2004).

Although, all the RCTs and quasi-experimental studies completed their follow-ups with evaluations carried out at multiple points to demonstrate progression in temporality. However, the follow-up periods were short (≤ 2years) in all the studies (with the exception of Wagman et al 2012), which might have limited their ability to demonstrate greater effects of the intervention, especially in the acceptance of domestic VAW and socio-economic empowerment outcome measures (Grimshaw et al 2000, Fathalla & Fathalla 2004, Howitt & Cramer 2008). Conversely, Pronyk et al (2006), Jewkes et al (2008) and Kim et al (2009) argue that the short 2-year follow-up minimised contamination bias which would have occurred beyond the 2-year period. Furthermore, all the studies reported high retention of participants with even losses in both the intervention and control groups. But, Wagman et al (2012) did not report separate retentions for the intervention and control groups, which may decrease the validity of its results due to potential for loss to follow-up bias (Delgado-Rodriguez & Llorca 2004).

Power analysis (≥80%) was used by Jewkes et al (2008), Kalichman et al (2009) and Wechsberg et al (2013) to ensure that their studies had sufficient power to detect statistical significant differences between the intervention and control groups (Hulley & Cramer 2007). Wagman et al (2012) used individual-level analyses opposed to cluster-level analyses to properly account for the small and unequal number of clusters in the intervention (4 clusters) and control (7 clusters). The wide CI values reported by Pronyk et al (2006) and Kim et al (2009) indicates that their sample size (i.e. number of clusters) were small, which may limit the generalisability of their findings (Wang et al 2005). Similarly, Fawole et al (2003), Abeya et al (2012) and Turan et al (2013) used small sample sizes which may indicate the potential for selection bias (Delgado-Rodriguez & Llorca 2004).

As earlier mentioned, all the included studies received approval from appropriate research ethics committee; ensuring their methods does not cause more harm than benefit to the study population (Nycum & Reid 2007, Resnik 2008). In addition, consent was sought from the participants with confidentiality maintained in study implementation and reporting of data. However, only Pronyk et al (2006) and Kim et al (2009) reported that their intervention (i.e. IMAGE) was subsequently administered in the control groups on study completion, thereby addressing to some extent the ethical implications of reducing inequalities in only intervention group compared with control groups (Nycum & Reid 2007). The overall quality of the included studies was low to average; however, their findings have practice and policy implications for the primary prevention of domestic VAW in sub-Saharan Africa.
CHAPTER 4 – DISCUSSION

The overall evidence from this review supports the use of integrated health promotion strategies to address social determinants of domestic VAW in sub-Saharan Africa across the individual, relationship and community levels as illustrated in the Ecological Framework for Prevention of Domestic VAW (see Figure 2 in Chapter 2).

Evidence from the review suggests that a combination of microfinance/ income generation and health education/ training interventions on domestic VAW and gender equality were targeted at relationship and community levels to successfully promote socio-economic empowerment of women (Fawole et al 2003, Pronyk et al 2006, Kim et al 2009, Instituto Promund 2012, IRC 2011). The evidence further suggests that health education/ training interventions have an incremental effect on the effectiveness of economic empowerment strategies (Kim et al 2009, Instituto Promund 2012). In congruence with this evidence are previously conducted systematic reviews from low- and middle-income settings (Bott et al 2005, Pronyk et al 2007, Vyas & Watts 2009, Dalak 2011, IRC 2012b, WHO 2004c, WHO 2012b). Although, the evidence from this review suggests health education is a fundamental component of health promotion strategies, but, uncertainty still exists on whether using health education/ training activities alone will be effective as when it is being added to economic empowerment strategies for primary prevention of domestic VAW in sub-Saharan Africa.

women (Jewkes et al 2008, Abeya et al 2012, IRC 2011, Instituto Promund 2012, Wagman et al 2012) were more successful in decreasing the acceptability of domestic VAW compared to women-only health promotion strategies (Fawole et al 2003, Pronyk et al 2006, Kim et al 2009, Turan et al 2013, Wechsberg et al 2013). This evidence converges with recommendations from previous systematic review studies conducted in Australia (AISR 2010), Eastern Europe and Asia (WHO 2007a, UNFPA 2009, UNFPA 2010) supporting the engagement of men to tackle gender inequality issues including domestic VAW.

Furthermore, the availability of community-based networks (community level) (Fawole et al 2003, Instituto Promund 2012, Turan et al 2013) influences the effectiveness of health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa. Consequently, the evidence suggests that successful increase in knowledge and awareness of domestic VAW is more likely to take place under conducive environmental conditions such as workplace support (Fawole et al 2003, Instituto Promund 2012) and health facilities (Turan et al 2013). This evidence is in congruence with previous systematic reviews conducted in high income countries such as Canada and UK (Hester & Westmarland 205, WHO & LSHTM 2010, WHO 2012b).

4.1 Implications for Policy, Practice and Research

4.1.1 Policy and Practice

The evidence from this review makes a strong case for the design and implementation of integrated health promotion strategies such as combined microfinance and health training interventions for primary prevention of domestic VAW in sub-Saharan Africa. Consequently, the multifaceted nature of the social determinants of domestic VAW requires a multi-sectoral

Furthermore, community-based networks such as motor parks, health care facilities and schools are important for raising awareness for primary prevention of domestic VAW in sub-Saharan Africa (WHO 1986, Cooker 2004, Kaur & Garg 2008, DFID 2012). Increasing the availability of these awareness creation outlets within sub-Saharan African communities will increase the chances of reaching the general population (men and women) with well-developed and coordinated messages on primary prevention for domestic VAW. In addition, developing strong community-based networks for primary prevention of domestic VAW would greatly improve mobilization and utilization of scarce health promotion resources especially in rural communities of sub-Saharan Africa (WHO 1986, Bott et al 2005, Jamison et al, 2006, UNDAW 2005, Michau 2007, DFID 2012, Heise 2012).

Interestingly, this review calls for the inclusion of men alongside women in the design and implementation of health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa. Men are key stakeholders in the elimination of domestic VAW, especially since they are the usual perpetrators of such acts (UNFPA 2009, UNFPA 2010, Crooks et al 2007, WHO 2007, Smedslund et al 2011, Wells et al 2013). Consequently, health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa are more likely to be successful when there is high acceptance of men’s role in ending domestic VAW (Bowman 2003, Close to Home 2003, Burrill & Thornberry 2010, IRC 2012a). However, the engagement of men in the primary prevention of domestic VAW should be carried out in a way that protects the dignity of women and does not overshadow the critical need for socio-economic empowerment of women (STOPVAW 2003, UN 2005).
In order to prevent domestic VAW from happening in the first instance, it becomes of importance that health promotion strategies that promotes joint-decision making and respect for the rights and dignity of women are targeted at both young men and young women during early stages of intimate relationships (dating) (Cornelius & Resseguie 2007, CDC 2012a, Fellmeth et al. 2013).

Importantly, programmes for primary prevention of domestic VAW should be strengthened and coordinated across the local, national and regional levels of sub-Saharan Africa to facilitate the collective attainment of the millennium development goal 3 that aims to promote gender equality and empowerment of women (WHO 2005a, LVCT 2012, UN 2013b).

### 4.1.2 Research

The overall finding of this review recommends that future research on primary prevention of domestic VAW in sub-Saharan Africa should investigate the impact of health promotion strategies on changes in the behaviours of participants. Actual changes in behaviours when compared to changes in attitudes (behavioural intentions) could serve as a more objective outcome measure that will provide in-depth understanding of how health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa should be designed and implemented (Ellsberg & Heise 2005, Cornelius & Resseguie 2007, Flood 2009, IRC 2012b).

Consequently, future research should consider using high quality RCTs for investigating actual behavior change resulting from health promotion strategies. However, RCTs investigating domestic VAW-related behavior changes require longer follow-up periods and are likely to be more expensive than those investigating attitude changes (Ellsberg et al. 2001, Schulz & Grimmes 2002a, Fathalla & Fathalla 2004, Cornelius & Resseguie 2007, Dahlberg
et al 2007). Other important domestic VAW-related outcomes such as changes in social norms and prevalence of domestic VAW should also be investigated in future research using high quality RCTs with longer follow-up duration (Ellsberg & Heise 2005, García-Moreno et al 2006, Shamu et al 2011, UN Women 2012d, WHO 2005c, WHO 2013a).

This review suggests that gender influences the effectiveness of health promotion strategies. Thus, future research should attempt to properly evaluate the differential effect of health promotion strategies among men and women through stratification of outcome measures by gender. Findings from such future research could adequately inform key programming issues such as the duration for implementing health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa (Cornelius & Resseguie 2007, Dahlberg et al 2007).

4.2 Study Limitations

This study succeeded in evaluating the effectiveness of health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa; based on the findings from the 11 included studies. The main strengths of this study lies in its rigorous application of systematic methods to ensure that this study reflects EBP in research and is replicable. However, it is important to acknowledge the limitations of this study.

Firstly, this study was carried by out by a single relatively inexperienced student researcher under the constraints of time and word limits without regular peer-reviewing of the review process. Under these conditions the potential for errors increases, especially during the literature search process and extraction of data (Delgado-Rodriguez & Llorca 2004, Fathalla & Fathalla 2004, De Vet et al 2005, Lipowski 2008). Consequently, this study was properly managed under the time and word limit constraints. Also, the purpose of regular peer-
reviewing was slightly compensated through timely discussions with the assigned supervisor who provided feedback on drafts.

Secondly, this study has a potential for selection bias mainly resulting from the literature search strategy used and eligibility criteria. By focusing on sub-Saharan Africa women in the reproductive age group 15-49 years, the study did not represent women in other age groups especially the elderly (≥65 years), which may make the findings of this study not generalisable to sub-Saharan Africa women in other age groups. On the other hand, this makes the study highly relevant to addressing the needs of the sub-Saharan African women that are considered to be most-at-risk for domestic VAW (Bowman 2003, UN 2006d, O’Reilly 2007, UN Women 2012d). Also, the risk of selection bias is apparent in the settings of the included studies; 5 out of the 11 studies were conducted in South African. But, this search result may be an indication of the disproportionate availability of domestic VAW studies in sub-Saharan Africa; with more studies carried out in South Africa compared to other sub-Saharan African countries. But, South Africa is known to share common socio-economic, cultural, political and environmental conditions for domestic VAW with the other sub-Saharan countries (ACHPR 2003, Bowman 2003, Kimani 2007, WHO/AFRO 2010, UN 2013b).

Lastly, this study has a potential for reporting bias in choosing the outcome measures of interest from the included studies. Specifically, the ‘prevalence of domestic VAW’ was reported by only Wechsberg et al (2013). Hence, this outcome measure was not included in the thematic analysis, as its inclusion is likely to result to misclassification bias and make comparison with other included studies very weak due to lack of data. However, this study systematically presented the results of other relevant outcome measures that appeared in more than just one of the included studies; allowing adequate comparison to be made.
4.3 Conclusion

This study evaluated the effectiveness of health promotion strategies for primary prevention of domestic violence against women in sub-Saharan Africa. Overall, the evidence from this review is not sufficiently credible enough to identify health promotion strategies that are effective in primary prevention of domestic VAW in sub-Saharan Africa. However, the evidence suggests that integrated health promotion strategies including economic empowerment and health education/training interventions are more likely to be successful in primary prevention of domestic VAW in sub-Saharan Africa.

Notably, this review suggests there is a critical need for high quality evidence on primary prevention of domestic VAW in low resource settings including sub-Saharan Africa. More so, the sustainability of primary prevention efforts should be ensured through multi-sectoral approach across local, national and regional levels of sub-Saharan Africa. Also, the combined influence of gender, community-based networks and socio-cultural norms on domestic VAW in sub-Saharan Africa should be given adequate consideration when designing primary prevention health promotion.

Finally, health promotion resources for primary prevention of domestic violence against women in sub-Saharan Africa and other low resource settings should be directed at the grass root communities; where the influence of social gender inequality norms prevail the most.


[Accessed on: 18 May 2013]

[Accessed on: 28 June 2013]

[Accessed on: 10 May 2013]


[Accessed on: 10 May 2013]

[Accessed on: 28 June 2013]


[Accessed on: 01 July 2013]


Nelson H, Bougatsos C & Blazina I (2012) ‘Screening women for intimate partner violence: a systematic review to update the U.S. preventive services task force recommendation’ 


Stallabrass S (13 February 2013) Re: completed proposed topic form [Email to Hamman D] Available email: spstal@essex.ac.uk


The University of Essex (2013a) *School of Health & Human Sciences Referencing Guidelines* Available through Moodle @ University of Essex [Accessed on: 30 August 2013]


71


APPENDICES

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Declaration

The author declares that this dissertation is his own original work which has not been previously submitted. Also, the permission to carry out this study was received from the School of Health and Human Sciences, University of Essex.

Acknowledgement

The author would like to immensely appreciate the assigned supervisor - Vikki-Jo Scott for her unique and tireless contribution during the development of this dissertation by providing valuable discussion and feedback on draft material.

Potential Conflict of Interest

The author has no known conflict of interest.
Thank you Dauda, I have forwarded this to Mel and Allan for allocation of a supervisor.

Best wishes
Susan

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Dear Susan,

Much thanks for yesterday's discussion on the feasibility, appropriateness and other issues concerning the dissertation. Please find my completed proposed dissertation topic form as an attached word document.

Kind regards,
Hamman, Dauda Gayus

(Taken from: Stallabrass (13 February 2013))
Figure 3- Flow Chart of a Cochrane Systematic Review
(Taken from: Jackson n.d.)
### Table 5- Review Protocol

#### Introduction
- Background of the Study
- Aim & Objectives

#### Methods
- Type of Study
- Research Question Formulation
- Eligibility Criteria
  - Types of Study Designs
  - Types of Participants
  - Types of Interventions
  - Types of Outcome Measures
- Literature Search
  - Electronic Search
  - Searching Other Sources
- Data Collection and Analysis
  - Data Extraction and Management
  - Assessment of Methodological Quality of Included Studies
  - Data Synthesis
- Framework for Interpretation of Results
- Ethical Considerations

#### Findings
- Selection of Studies
- Description of Studies
- Methodological Quality of Studies
- Behavioral Change and Power balance
  - Knowledge and Awareness of Domestic Violence
  - Acceptance of Domestic Violence
  - Socio-economic Empowerment

#### Discussion
- Implications for Policy, Practice and Research
  - Policy and Practice
  - Research
- Study Limitations
- Conclusion
- Dissemination of Findings
Table 6- Data Collection Form

- Title and date of study
- Eligibility for inclusion
- Study: design, setting and duration
- Socio-demographic data of participants
- Intervention(s) (health promotion strategies) used
- Reported outcomes and sample size
- Definition and measurement unit of outcomes
- Ethical approval and other considerations
- Key conclusions from study authors
- Additional notes including risk of bias

Table 7- Inclusion Criteria

Inclusion Criteria (mainly presented as search terms and limiters)

<table>
<thead>
<tr>
<th>RCTs, quasi-experimental and qualitative studies investigating health promotion interventions for primary prevention of domestic VAW.</th>
</tr>
</thead>
</table>

Main participants are sub-Saharan African women in reproductive age group (15-49 years); however, studies that engaged men were considered.

Outcome measures of interest are behavioural change and socio-economic empowerment outcomes related to domestic VAW.

Date of publication: studies published within the past 10 years (i.e. 2003-2013).

Peer reviewed studies.
### Table 8- Exclusion Criteria

<table>
<thead>
<tr>
<th>Exclusion Criteria (not just the absence of inclusion criteria)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-primary studies including systematic reviews and meta-analyses.</td>
</tr>
<tr>
<td>Studies with a different research problem (i.e. not domestic VAW); irrelevant for answering the research question.</td>
</tr>
<tr>
<td>Studies that addressed secondary prevention without primary prevention of domestic VAW; not appropriate for qualitative synthesis.</td>
</tr>
<tr>
<td>Non-English language published studies.</td>
</tr>
</tbody>
</table>

### Detailed Literature Search Strategy

**Research Topic:**


**Research Question:**

What is the effectiveness of health promotion strategies for primary prevention of domestic VAW in sub-Saharan Africa?

**Key Words:**

- **P** = Women in sub-Saharan Africa
- **I** = Health promotion strategies for primary prevention
- **C** = Pre- and post- primary prevention intervention
- **O** = Domestic violence
Table 9- Search Terms

<table>
<thead>
<tr>
<th>Key Words</th>
<th>Search Terms: - MeSH Terms and Alternative/ Entry Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>Women; and woman</td>
</tr>
<tr>
<td>sub-Saharan Africa</td>
<td>Africa South of the Sahara; Sub-Saharan Africa; Africa, Sub-Saharan; Subsaharan Africa; and Africa, Subsaharan</td>
</tr>
<tr>
<td>Health promotion</td>
<td>Health promotion; promotion, health; health promotions; promotions, health; promotion of health; health campaign; campaign, health; health campaigns; and campaigns, health</td>
</tr>
<tr>
<td>Domestic violence</td>
<td>Domestic violence; violence, domestic; family violence; violence, family; spouse abuse; abuse, spouse; spousal abuse; abuse, spousal; partner abuse; and abuse, partner</td>
</tr>
</tbody>
</table>

Search Details:

Electronic Databases Used:

- EBSCOhost Databases: - CINAHL Complete, CINAHL Plus with Full Text, eBook Collection (EBSCOhost), E-Journals, MEDLINE with Full Text
- PubMed Database
- Cochrane Central Register of Controlled Trials (CENTRAL)
Table 10- Preliminary Electronic Search (4th May 2013)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Search Strategy (Combination of Major MeSH Terms without word variations, synonyms and other key words)</th>
<th>Results</th>
<th>E</th>
<th>P</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>&quot;Domestic Violence&quot;[Mesh]</td>
<td></td>
<td>82,808</td>
<td>33,403</td>
<td>585</td>
</tr>
<tr>
<td>2.</td>
<td>(&quot;Domestic Violence&quot;[Mesh]) AND &quot;Women&quot;[Mesh]</td>
<td></td>
<td>1,400</td>
<td>2,233</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>(&quot;Domestic Violence&quot;[Mesh]) AND &quot;Africa South of the Sahara&quot;[Mesh]</td>
<td></td>
<td>8,147</td>
<td>586</td>
<td>8</td>
</tr>
<tr>
<td>4.</td>
<td>(&quot;Domestic Violence&quot;[Mesh]) AND &quot;Health Promotion&quot;[Mesh]</td>
<td></td>
<td>539</td>
<td>211</td>
<td>11</td>
</tr>
<tr>
<td>5.</td>
<td>&quot;Domestic Violence/prevention and control&quot;[Mesh]</td>
<td></td>
<td>15,923</td>
<td>6,879</td>
<td>217</td>
</tr>
<tr>
<td>6.</td>
<td>(((&quot;Domestic Violence&quot;[Mesh]) AND &quot;Women&quot;[Mesh]) AND &quot;Africa South of the Sahara&quot;[Mesh])</td>
<td></td>
<td>213</td>
<td>75</td>
<td>1</td>
</tr>
<tr>
<td>7.</td>
<td>(((&quot;Domestic Violence&quot;[Mesh]) OR &quot;Spouse Abuse&quot;[Mesh]) AND &quot;Africa South of the Sahara&quot;[Mesh]) AND &quot;Health Promotion&quot;[Mesh]</td>
<td></td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>8.</td>
<td>(((&quot;Domestic Violence&quot;[Mesh]) AND &quot;Women&quot;[Mesh]) AND &quot;Africa South of the Sahara&quot;[Mesh]) AND &quot;Health Promotion&quot;[Mesh]</td>
<td></td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>9.</td>
<td>(((&quot;Domestic Violence/prevention and control&quot;[Mesh]) AND &quot;Women&quot;[Mesh]) AND &quot;Africa South of the Sahara&quot;[Mesh]</td>
<td></td>
<td>44</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>10.</td>
<td>(((&quot;Domestic Violence/prevention and control&quot;[Mesh]) AND &quot;Women&quot;[Mesh]) AND &quot;Africa South of the Sahara&quot;[Mesh]) AND &quot;Health Promotion&quot;[Mesh]</td>
<td></td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Where: -

- **E** = EBSCOhost Databases: - CINAHL Complete, CINAHL Plus with Full Text, eBook Collection (EBSCOhost), E-Journals, and MEDLINE with Full Text
- **P** = PubMed Database
- **C** = Cochrane Central Register of Controlled Trials (CENTRAL) Database
Explanation for Combination of Search Terms in Final Electronic Search Strategy

The MeSH and entry terms were purposefully combined using two Boolean (AND and OR) and proximity (NEXT) operators, while plural word variations were addressed using wild cards (truncation) asterisk (*) and question mark (?) commands. For example, health promotion* was used to identify studies indexed with either “health promotion” or “health promotions” (i.e. character(s) at the beginning or end of word), while wom?n identified studies indexed with either “woman” or “women” (i.e. single character within a word). Major MeSH terms and their entry terms such as “domestic violence” and “family violence” were combined using “OR”, while different MeSH terms such as “Africa South of the Sahara” and “Health Promotion” were combined using “AND”. Also, MeSH terms such as “domestic violence” and “Africa South of the Sahara” that are appear as phrases are exactly searched using quotes (“”). Proximity operator (NEXT) was used to link close words in phrases where wild cards were used, as in the given example, spous* NEXT abuse was used to represent both “spouse abuse” and “spousal abuse” in the search strategy. Based on the eligibility criteria, the author carefully applied a set of limiters (such as publication date and peer reviewed) to further refine the search.

Application of Limiters

- 1st set of limiters (i.e. limiters - Human, Published Date from: Jan 2003 to May 2013, and Peer reviewed) applied just before duplicates of identified records were removed.
- 2nd set of limiters (i.e. additional limiters - Abstract Available; and Randomized Controlled Trials) applied just before records were screened.
- 3rd set of limiter (i.e. additional limiter – Full text available) applied just after records were screened and excluded.

Other Sources Searched:

A total of 107 additional records were identified through other sources including: snowballing references, citation tracking and hand searching relevant institutional databases, namely: - UN Secretary-General's Database on Violence Against Women (UN Women 2011b); Violence Prevention Evidence Base (Violence Prevention Alliance (2013c); WHO
Library Database: Institutional Repository for Information Sharing (IRIS) (WHO 2013d). In addition, the following relevant journals were also hand searched: - Violence Against Women (VAW); Journal of Interpersonal Violence (JIV); Trauma, Violence & Abuse (TVA); Journal of Family Violence (JFV); Aggression & Violent Behaviour (AVB); Healthcare for Women International (HCWI); British Medical Journal (BMJ), African Journal of Reproductive Health (AJRH), and African Journal of Midwifery & Women’s Health (AJM). However, only 18 articles were assessed for eligibility, out of which 3 were included in the qualitative synthesis.

Notes:

1. ‘English language’ as an eligibility criterion was only applied when full-text articles were assessed for eligibility
2. The final search was performed on the 6th May 2013 and was updated on the 25th May, 2013. Both searches yielded very similar results.

Undertaken by: Dauda Gayus Hamman

Date: 27th May, 2013

(Adapted from: NHS Fife Library Services 2005)
<table>
<thead>
<tr>
<th>Study</th>
<th>Methods</th>
<th>Participants and Study Setting</th>
<th>Interventions</th>
<th>Outcome Measures</th>
<th>Risk of Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abeya <em>et al</em> (2012)</td>
<td>Qualitative evaluation study: - focus group discussions (FGDs).</td>
<td>115 married/cohabited individuals (55 men and 60 women) with median age 30.4 years (23 to 48 years) in West Ethiopia.</td>
<td>Domestic VAW educational campaign lasting 3 months.</td>
<td>- Knowledge and awareness of domestic VAW-related prevention services at baseline and end line (3 months). - Attitudes towards acceptance of domestic VAW at baseline and end line (3 months).</td>
<td>Potential for selection bias due to small and convenience sample.</td>
</tr>
<tr>
<td>Fawole <em>et al</em> (2003)</td>
<td>Qualitative evaluation study: - FGDs and in-depth interviews (IDIs).</td>
<td>595 married female hawkers with median age 23.5 years (18-28 years) at the 2 biggest motor parks each in 3 states (Ogun, Oyo and Osun) in Southwestern Nigeria.</td>
<td>- Workplace integrated educational and economic empowerment intervention involving: - (1) Trainings (n=595) for 4 weeks; (2) Micro-credit facilities (n=261) for 4 months. - High retention of participants (94.5%).</td>
<td>- Knowledge and awareness of the types and consequences of different forms of domestic VAW at baseline and 5 weeks after initiation of intervention. - Acceptance of wife-beating at baseline and 12-month post-intervention. - Socio-economic independence at end line (12-month post-intervention).</td>
<td>Potential for selection bias due to small and convenience sample.</td>
</tr>
<tr>
<td>Instituto Promundo (2012)</td>
<td>Qualitative evaluation study: - interviews</td>
<td>6,500 farmers (men and women) between ages 18-48 years at 3 local coffee cooperatives in rural Rwanda</td>
<td>Workplace-based domestic violence prevention intervention involving: - 60 trainings; 124 workshops on gender equality, relationships and income generation and; 1 community awareness campaign.</td>
<td>- Knowledge of gender equality, relationships and types of domestic VAW at baseline and 12-month post-intervention. - Socio-economic independence at 12-month post-intervention.</td>
<td>Reporting bias due to lack of presentation of complete result - the impact of campaign.</td>
</tr>
<tr>
<td>Study</td>
<td>Design Type</td>
<td>Allocation Concealment</td>
<td>Blinding</td>
<td>Follow-up</td>
<td>Data Analysis</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------</td>
<td>------------------------</td>
<td>----------</td>
<td>-----------</td>
<td>--------------</td>
</tr>
<tr>
<td>International Rescue Committee (IRC) (2011)</td>
<td>RCT: Allocation concealment; no blinding; follow-up completed (12 months); individual-level analysis without intention-to-treat (ITT) approach; no power analysis.</td>
<td>483 men and women with average age of 37.9 years in Bujumbura rural Province Burundi.</td>
<td>1 year Economic and Social Empowerment for women (EASE) program involving a Village Savings and Loan Association (VLSA) and Talking about Talking (TaT) discussion series components.</td>
<td>2 groups: Control (VSLA-only; n=215) vs Intervention (VSLA + TaT; n=251).</td>
<td>High retention of participants: VSLA-only (95%); VSLA + TaT (97%).</td>
</tr>
<tr>
<td>Jewkes et al (2008)</td>
<td>Cluster RCT: Allocation concealment; no blinding; follow-up completed (2 years); aggregated cluster level analyses with ITT approach; power analysis (≥80%).</td>
<td>1,360 men and 1,416 women aged 15-26 years in 70 villages in rural Eastern Cape Province of South Africa.</td>
<td>A 50 hour behavioural intervention for HIV and gender-based violence (GBV) prevention named Stepping Stones</td>
<td>2 groups: Stepping Stones Intervention (n = 35 clusters) vs HIV-only Control (n = 35 clusters)</td>
<td>No cluster lost to follow-up; with high retention of participants: Stepping Stones (73.1%); HIV-only (76.0%).</td>
</tr>
</tbody>
</table>
| Kalichman et al (2009) | Quasi-experimental study: - no randomisation; allocation concealment; blinding (participants and assessors); follow-up completed (6 months); individual-level analyses with ITT approach; power analysis (80%). | 475 men with average age of 30.2 years in two communities in Cape Town South Africa. | - A five session integrated gender-based violence and HIV (GBV/HIV) prevention intervention conducted in 1 week. 
- 2 groups: Experimental intervention (GBV/HIV; n=242) vs Control intervention (alcohol/HIV risk reduction; n=233). 
- High retention of participants: GBV/HIV (95%); alcohol/HIV (87%). | - Knowledge of domestic VAW (mean correct %) at 1-, 3-, and 6-month post-intervention. 
- Attitudes towards acceptance of domestic VAW at 1-, 3-, and 6-month post-intervention. | Potential for confounding bias due to lack of randomisation. |
|---|---|---|---|---|---|
| Kim et al (2009) | Cluster RCT: -allocation concealment; blinding (assessors only); follow-up completed (2 years); face-to-face structured interviews; 3-way cluster level analyses; no ITT approach; no power analysis | 1409 married/cohabited women with a median age of 35 years in 12 villages located in rural Limpopo Province of South Africa. | - A combined microfinance–health training intervention known as Intervention with Microfinance for AIDS and Gender Equity (IMAGE). 
- 12 clusters (4 clusters per group): - Control (n=430); MF-only (n=549); and IMAGE (n=430). 
- No cluster lost to follow-up; with high retention of participants: Control (84%); MF-only (87%); IMAGE (90%). | - Attitudes condoning domestic VAW at 2-year post-intervention. 
- Social network membership at 2-year post-intervention. | Potential for performance bias due to lack of participants blinding. |
<table>
<thead>
<tr>
<th>Study</th>
<th>Type of Study</th>
<th>Design Characteristics</th>
<th>Participating Groups</th>
<th>Outcomes</th>
<th>Potential Biases</th>
</tr>
</thead>
</table>
| Pronyk et al (2006) | Cluster RCT | - allocation concealment; blinding (assessors only); follow-up completed (2 years); face-to-face structured interviews; one-way cluster level analysis; no ITT approach; no power analysis. | 860 married women aged 18-46 years in 8 villages located in rural Limpopo Province of South Africa. | - IMAGE.  
- 8 pair-matched clusters (4 clusters per group): IMAGE (n=430) vs Control (n=430).  
- No cluster lost to follow-up; with high retention of participants: IMAGE (90%); Control (84%). | - Reporting progressive attitudes towards domestic VAW at 2-year post-intervention.  
- Participation in social groups at 2-year post-intervention.  
| Potential for performance bias due to lack of participants blinding. |
| Turan et al (2013) | Qualitative evaluation study | - FGDs and IDIs; follow-ups at 2 months (FGDs; 2 groups; n=17) and at 3 months (IDIs; n=25) after initiation of intervention. | 134 pregnant women aged 15-49 years in rural Nyanza Province Kenya. | - Knowledge and awareness of domestic VAW-related prevention services (baseline vs 2 and 3 months after initiation of intervention).  
- Acceptance of wife-beating (baseline vs 3 months after initiation of intervention). | Potential for selection bias due to small and convenience sample. |
| Wagman et al (2012) | Quasi-experimental study with matched clustering | - no randomisation; no allocation concealment; blinding (assessors only); follow-up completed (3 years); individual-level analysis with ITT approach; no power analysis. | 14,668 men and women aged 15-49 years from 15 communities in Rakai District, Uganda. | - GBV prevention intervention named the Safe Homes and Respect for Everyone (SHARE) Project.  
- 2 groups: SHARE Intervention (4 clusters, n=3,636) vs Control (7 clusters, n=11,032). | Intolerance for domestic VAW over 3-year follow-up period.  
- Potential for confounding and allocation of intervention biases due to lack of proper randomisation.  
- Potential for loss to follow-up bias. |
| Wechsberg et al (2013) | RCT: - Allocation concealment; no blinding; with multiple follow-ups; 1 year follow-up completed; individual-level analyses with ITT approach; power analysis (84%) | 720 drug-using women aged 18-33 years in Cape Town, South Africa. | - An adapted woman-focused behavioural intervention named Women’s Health CoOp (WHC) for drug abuse, sexual risk behaviours and domestic violence prevention.  
- 3 groups: WHC Intervention (n=360) vs Nutrition Control arm (n=181) and HCT-only Control arm (n=179).  
- High retention of participants: WHC (81.7%); Nutrition (82.9%). | Attitudes towards acceptance of domestic VAW (at 6 and 12 months post-intervention). | Potential for performance bias due to lack of participants blinding. |