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Investigating the true rate of physical intimate partner violence: A review of nationally representative surveys

by

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Abstract

This review systematically investigates rates of physical intimate partner violence for both sexes in international samples. Surveys that accessed nationally representative samples, used gender inclusive methodology and neutral contexts are reviewed to determine 12 month and lifetime victimization and perpetration rates. Discrepancies between international rates, and the impact that gender equality may have upon these differences is also investigated. Electronic databases were systematically searched to identify surveys that met inclusion criteria. Eleven surveys were reviewed. Of these, Family Violence surveys had the highest methodological quality and showed equal rates for both sexes. Surveys of lesser quality typically showed higher female victimization and male perpetration rates. Countries at the extremes of gender empowerment measure scores differed in their patterns of rates. Gender equality in the US was associated with symmetry for the sexes, and inequality in Uganda associated with higher female victimization. However, as countries tended to use different methods to investigate the problem it was not possible to compare the effects of gender equality on differences in international rates of IPV. It is concluded that survey methodology needs to be consistent across nations, and specifically target family violence if true rates are to be determined and compared across the globe.

Key words: intimate partner violence, domestic violence, prevalence rates, gender equality

1. Introduction

Statements such as "One in every four women will experience domestic violence in her lifetime" (National Coalition Against Domestic Violence [NCADV], 2007) are commonplace in the media and in gendered literature, to describe the "facts" about the nature of intimate partner violence (IPV). Such figures are often reported without mention of the rate at which men experience victimization, or the methodological quality of the study from which these figures were produced. These assertions are typically driven by a theoretical understanding of IPV which conceptualizes the social problem as predominantly one of men's violence against women (e.g., Respect, 2008; Yllö, 2005). This approach has received extensive criticism for being ideologicallydriven and propagating assertions that are not supported by the evidence (Dixon & Graham-Kevan, 2010; Dutton & Nichols, 2005; Dutton & Corvo, 2006; Gelles & Straus, 1988; Graham-Kevan, 2007; Hamel & Nichols, 2007). Since advancements in science are made by testing theories against the evidence base, it is crucial that empirical studies are carried out in a methodologically sound manner to ensure the data on which policy and practice is based are valid. Despite such misgivings, widespread dissemination of an understanding of IPV as a gender issue has led to a standard conceptualization of IPV as a male-perpetrated crime (Dutton, 2006).

This review defines IPV as "any form of physical, sexual and psychological aggression and/or controlling behavior used against a current or past intimate partner of any sex or relationship status" (Dixon & Graham-Kevan, submitted, p.1). It considers one of the most basic, yet controversial questions about IPV: What is the prevalence of this social problem? Although it is recognized that IPV consists of more than one form of aggression, this review examines physical violence for two main reasons: 1) physical violence is the aspect of IPV which has been the focus of most controversy (and

disagreement) in research (Straus, 2008), and 2) unlike psychological and sexual aggression, surveys have consistently investigated physical violence, making it possible to identify and consider aggregate data. However, this focus on physical violence does not imply that physical IPV is more important or damaging than other forms (i.e. psychological aggression and neglect, sexual coercion).

1.1. Factors affecting reported prevalence rates

1.1.1. The influence of theory on research and survey methodology

Theoretical preconceptions about the nature of IPV affect how researchers define the problem and design research to investigate it (Dixon & Graham-Kevan, submitted). If research methodology is not based on sound conceptual principles, resultant findings will only serve to cloud understanding of the problem.

To date, a gendered conceptualization of IPV has dominated professional and public understanding of IPV (Dutton, 2006). This perspective views IPV as a problem of male violence toward women, directly caused by societal rules and patriarchal beliefs which support male dominance and female subordination (Dobash & Dobash, 1979). An alternative and wider understanding has developed from a number of empirical studies that demonstrate men's and women's violence occur at approximately equal rates, are multi-factorial and can be explained in similar ways (e.g., O'Leary, Slep & O'Leary, 2007; Moffit, Caspi, Rutter & Silva, 2001) and same sex IPV (Burke & Follingstad, 1999; Stanley, Bartholomew, Taylor, Oram & Landolt, 2006). Importantly, the definitions and methodology that guide this research are gender-inclusive, which allows hypotheses to be derived and tested concerning the possibility that both sexes can perpetrate this type of aggression. Resultant evidence has led researchers in various disciplines (e.g., family sociology, social work, criminology and clinical and forensic

psychology) to view IPV as part of wider patterns in crime, human relations, aggression and personality (Dixon, Archer & Graham-Kevan, 2010).

1.1.2. Methodology of surveys

It is important to determine the prevalence of IPV so that professionals can understand the magnitude of the problem over time, judge an appropriate level of response, and monitor the effectiveness of strategies aimed at reducing the social problem. Theoretical discrepancies have resulted in different survey designs (e.g., Tjaden & Thoennes, 2000; Straus & Gelles, 1990). Earlier writings on domestic violence drew upon samples of women in shelters or accident and emergency departments to describe the nature of IPV and detail rates of female victimization (Dobash & Dobash, 1979; Walker, 1989; Serran & Firestone, 2004). Research with such selected populations unsurprisingly estimates high rates of male to female violence (Dobash, Dobash, Cavanagh & Lewis, 1998; Gayford, 1975; Kurz, 1996). Straus and Gelles (1999) refer to this as the 'clinical fallacy', stating that findings taken from research with clinical samples cannot be assumed to reflect the nature of the problem as experienced by the general population at large.

Accurate prevalence rates of IPV can only be determined by surveying nationally representative community samples (Gelles, 1990). Several surveys to date have accessed representative samples (e.g., Instituto Nacional de Estadística, Geografía e Informática, 2007; Moracco, Runyan, Bowling & Earp, 2007; Olaiz, Franco, Palma, Echarri, Valdez & Herrera, 2006; Tjaden & Thoennes, 2000; World Health Organization, 2005). However, few are gender-inclusive, that is most do not ask both men and women about their victimization and perpetration toward intimate partners. This one-sided approach not only limits knowledge to female victimization, but also prevents researchers learning about reciprocal aggression, which has been linked to high rates of injury (Whitaker, Haileyesus, Swahn & Saltzman, 2007).

Even when surveys do access nationally representative samples and are genderinclusive in their approach, there are often other methodological problems that compromise the validity of data gathered (Dutton & Nicholls, 2005). For example, the context in which survey questions are posed to participants is very important (Straus, 1999a). Crime surveys are often used to support the view that IPV is a gender issue. However asking respondents about their experiences of IPV in the context of understanding this aggression as a criminal act is not conducive to accurate reporting (Mihalic & Elliott, 1997). Nor are surveys that set the context as personal safety, violence in general, or men's violence against women (Archer, 2000a; Straus, 1999b). People, particularly men, do not typically interpret relationship aggression as a criminal behavior, violence, or a threat to personal safety (Straus, 1999a; Hoare & Janssen, 2008). Furthermore, surveys that are explicitly introduced as, or described by a title that implicitly implies they are interested in exploring women's victimization only, are not conducive to men reporting victimization from a female partner (e.g., Tjaden & Thoennes, 2000). As with selected samples, surveys incorporating the aforementioned limitations typically report higher levels of female victimization. In contrast, genderinclusive and nationally representative surveys (e.g., Straus & Gelles, 1990) do no incorporate any of the above demand characteristics and have found approximately equal rates of physical aggression between the sexes. Such surveys typically normalize aggressive acts as conflict that can commonly arise in response to an argument or disagreement with a partner, and do not assume women's violence is born out of selfdefence, which much empirical research finds to be incorrect (Capaldi, Kim & Shortt,

2004; Fergusson, Horwood & Ridder, 2005; LeJeune & Follette, 1994; Milardo, 1998; O'Leary & Slep, 2006).

Some surveys aggregate information on sexual, physical and psychological IPV to provide an overall rate (e.g., Romito & Gerin, 2002; Coker, Flerx, Smith, Whitaker, Fadden & Williams, 2007). This makes it difficult to identify rates of different forms of aggression experienced by both sexes. A common assertion is that "women make up the majority of victims of sexual violence" (Respect, 2008, p.1). If correct, including this information into an overall category of IPV may skew results for men and women differently. It is important to understand all types of aggression experienced by both sexes so that appropriate responses can be produced to address the spectrum of IPV. This review intends to begin this tall order with an investigation of physical violence, as the majority of surveys to date have included a measure of this.

1.1.3. International differences

Research has also highlighted that prevalence rates of IPV may differ by country. Archer's (2006) cross-national comparison compared studies that included a measure of the rates of IPV by both sexes in western and non-western countries. Men's perpetration of physical aggression was inversely correlated to women's societal power, and positively correlated with attitudes and approval of wife beating. Archer concluded that in countries with high gender empowerment (GEM: an indicator of women's societal power in a nation), men and women aggress against each other at approximately equal rates. Countries with low GEM for women displayed higher rates of male-tofemale unidirectional abuse. These findings suggest that patriarchal norms encourage and promote acts of physical aggression by men toward female intimate partners, especially in countries where it is seen as appropriate for men to punish women with

physical violence if they violate societal norms. Therefore, it is important to consider the country and corresponding societal norms from which prevalence rates are gathered.

1.2. Objectives of the review

It is clear that theoretical controversies and methodological discrepancies make it difficult to identify accurate rates of IPV. This review aims to investigate the true extent of physical IPV in international samples by systematically identifying surveys of high methodological quality that have produced rates for both sexes. First, surveys that have used nationally representative samples, gender inclusive methodology and neutral contexts are reviewed to determine 12 month and lifetime victimization and perpetration rates. Research suggests lifetime rates are less accurate than past-year reports, particularly when reporting male victimization, and therefore it is good practice to collate both (Moffitt, Caspi, Rutter, & Silva, 2001). Second, the impact that levels of gender equality may have upon discrepancies in rates between countries is investigated. The methodological quality of surveys is considered throughout.

2. Method

2.1. Search criteria

Electronic databases were systematically searched to identify relevant surveys conducted from 1970-2009. Searches were performed on the following databases: Science Direct, PsychInfo, MEDline, EMBASE, ASSIA (CSA), Web of Science, PsycArticles, Zetoc, Swetswise, ERIC (CSA), the Home Office Website; and REDALyC (Network of Scientific Magazines from Latin America, the Caribbean, Spain and Portugal). The search process was carried out from March 3rd-30th, 2009.

To identify relevant surveys, keywords (Intimate Partner Violence, Spouse Abuse, Domestic Violence, Intimate Partner Abuse, Mutual Violence, Reciprocal Violence and Symmetrical Violence) were coupled with specific terms (survey, national studies, rate, severity survey, prevalence survey and incidence survey). This produced a total combination of 42 keywords. Boolean markers were used in the search to screen as many studies as possible using the aforementioned keywords.

The central criterions for inclusion in the review were

- manuscripts were written in English or Spanish;
- surveys utilized a nationally representative sample, defined as a sample that represents the general population of an entire nation and not one region;
- both men and women were surveyed about their victimization and/or perpetration of physical IPV at some point in their lives;
- surveys questioned participants within a neutral context (that is they were not framed in the context of gender, crime, general violence or personal safety);
- surveys that spanned a large proportion of an adult population (up to at least age 49) were examined surveys which sample younger people only (e.g., 18-28 as in Whitaker, Haileyesus, Swahn & Saltzman. 2007) may inflate rates, making it difficult to generalize findings to the wider population; and
- A measure of physical violence in isolation was provided.
- 2. 2. Search findings

The search produced a total of 3083 hits. Of these, 20 were repeatedly identified in more than one database. Abstracts of the remaining 3063 manuscript were manually searched to ensure they met inclusion criteria. Where it was not obvious from the abstract that the manuscript was or was not appropriate, the content of the article was also manually searched. Correspondence with authors did not identify any additional surveys.

Of the 3063 manuscripts, four were not written in English or Spanish; 2974 did not utilize a nationally representative sample; 62 did not survey both men and women about their victimization and/or perpetration (they most commonly only asked women about their victimization); 12 did not set the survey in the neutral context described. This left a total of eleven surveys for review (shown in tables 1 and 2) that assessed IPV rates in six nations.

2.3. Gender Empowerment Measure

In order to compare the effects of gender empowerment on international rates, a gender empowerment measure (GEM) was produced for each country reviewed. GEM scores vary between 0 and 1. Higher scores reflect higher levels of gender equality; lower scores indicate greater inequality for women.

The GEM score is produced from a combination of three indicators of gender equality in the country of interest: The proportion of women in managerial, administrative, professional, and technical posts; women's share or earned income; and women's parliamentary representation. For the purpose of this review, as with Archer's (2006) cross-national comparison, the 1997 GEM's were used for all countries for consistency. Such figures were not available for the Ukraine, or Uganda. The figures for the Ukraine were taken from 2000 United Nations Human Development Reports (United Nations Development Programme, 1997; 2000). Uganda's GEM was approximated from Sudan's 1997 figure, which was the only neighbouring nation with reported GEM from 1997-2004.

2.4. Quality assessment

Although all 11 surveys meet the methodological standards outlined by the inclusion criteria, differences between surveys still exist. Table 1 provides a summary of the methodology and its quality in each survey, which are presented under categories of Demographic and/or Health Surveys; Family Violence Surveys; and Psychiatric and/or Epidemiological Surveys. They are listed in ascending chronological order within each category and numbered 1 to 11. Two and three point scales, ranging in values from 0 - 1 or 0 - 2 respectively, are used to quantify the quality of studies according to six methodological factors. Scales used to assess each factor are described below. An overall quality score ranging from 0 to 9 can therefore be achieved for each survey. A higher score indicates stronger methodology, likely to aid the production of findings that are more robust and generalizable.

TABLE 1 ABOUT HERE

2.4.1 Sample age

Research has shown variations in rates of IPV by age group, with higher rates of perpetration found in student, dating or younger populations, especially by women (Stets & Straus, 1990). Studies that use a wide age range will be more representative of the general population than those with a capped age. Surveys that do not limit upper age range are awarded a score of 1; surveys that limit age to a specific age because of the particular aims of the survey (i.e. reproductive age ranges of a majority of women, age cut-off point for active comorbidity for psychiatric disorders, etc.) are awarded a score of 0.

2.4.2. Measures

The Conflict Tactics Scales (Straus 1990a; 1990d; Straus, Hamby, Boney-McCoy & Sugarman, 1996) are the most widely used assessment tools for identifying aggression in intimate relationships (Straus, 2008). They assess specific acts of physical

aggression used to solve conflict in relationships and as such assess a range of acts that vary in severity, providing a more detailed, less biased, snapshot of IPV than measures assessing a single act and/or one dimension of severity. Therefore, more detailed assessments of acts of physical IPV are considered to be of higher quality and are thus awarded a higher rating. Surveys that used the CTS or a modified version of it and included acts of minor and severe violence gained a score of 2; surveys that used the CTS assessing only one dimension of severity or an alternative less detailed assessment tool, assessing minor and severe IPV together, were assigned a score of 1. Studies that did not use the CTS and only assessed one dimension of severity were assigned a score of 0.

2.4.3. Survey context

Surveys that are presented to participants in a context of assessing matters of mental disorders, alcohol use, sexual behavior, or reproduction and health matters are less conducive to accurate reporting, as the context does not prime them to think specifically about their relationship. In addition, surveys that prime participants to think about aggression in relationships as violence are not conducive to accurate reporting as many people do not consider aggressive acts in this context as "violence" or even "wrong", but rather "just something that happens in relationships" (Hoare & Jansson, 2008). Surveys that are introduced in the context of examining relationships in the family are assigned a score of 2 (no surveys met this criteria); surveys that are presented as assessing family violence or family life in very general terms (not relationship specific) are assigned a score of 1; surveys introduced in a context of examining alcohol patterns, sexual behavior, DSM mental disorders, or reproduction and health matters are assigned a score of 0. These criteria deem that surveys presented in a context of family life and relationships are more conducive to accurate reporting of partner violence than

surveys set in a health context (i.e. fertility, psychiatric disorders, etc.) and thus are awarded a higher ranking.

2.4.4. Framing of family violence questions

Most surveys assess a range of variables, with IPV being one of many. Therefore, in addition to understanding the general context in which the overall survey is placed, it is important to consider the context in which questions about IPV are introduce within each survey. Providing a context that normalizes relationship aggression (e.g., "No matter how well a couple gets along, there are times when they disagree"; Straus et al, 1996, p. 310) allows participants to legitimize their behavior and therefore facilitates reporting it (Straus, 1999a). Furthermore, research shows the majority of participants are unlikely to think of relationship aggression as 'violence', particularly male victims (Hoare & Jansson, 2008). Therefore questions introduced as asking about 'violence' or 'stressful events' may produce less accurate responses than questions simply framed as asking about how people solve problems in relationships, or which from a list of events do they experience with no connotations attached about how dangerous, stressful or frightening they may perceive these acts. Surveys that normalize violence in relationships, and introduce it as something that they may or may not experience without any connotations about how stressful they may perceive the acts are assigned a score of 2; surveys that do one of the aforementioned are awarded a score of 1; surveys that do neither, or do not provide an introduction to the questions, are scored 0.

2.4.5. Sex matching

Research investigating the effects of the sex of interviewer and interviewee on participant reports shows that matching sex facilitates communication, which leads to more open responding (Holbrook, Green & Krosnick, 2003; Durrant, Groves, Staetsky,

& Steele, 2010). Therefore, surveys that matched interviewer and interviewee sex score 1, surveys that do not, or have not recorded this methodological point, score 0 2.4.6. Couples interviewed

Asking couples to report on their own and their partner's perpetration captures self-reports of both members of the couple, allowing cross validation of data. Research (Szinovacz & Egley, 1995) has shown that data of socially undesirable behavior such as IPV coming from couples is more accurate than data coming from studies that obtained such data only from one partner. Surveys that used couples are given a score of 1; surveys that did not use couples are assigned a score of 0.

3. Results

3.1. Quality assessment findings

It is clear from Table 1 that methodological differences prevailed between the 11 surveys. The survey ranked as having the lowest methodological quality, as assessed by the six factors detailed in section 2.4, was México's Survey of Psychiatric Epidemiology (Medina-Mora et al. 2005), which achieved the minimum total score of 0. Surveys with the highest quality score were the 1975 and 1985 National Family Violence Survey (NFVS; Straus 1990c), the 1987-88 National Survey of Families and Households (NFSH; Sweet, Bumpass, & Call, 1988; Anderson, 2002), and the 1995 National Alcohol Survey (NAS; Schafer, Caetano, & Clark, 1998; Caetano, Field, Ramisetty-Mikler, & McGrath, 2005), all three of which scored 6. These surveys were in the Family Violence category: all surveys in this class scored much higher on methodological quality (5-6) than Demographic and/or health surveys (2-3) or Psychiatric and/or Epidemiological Surveys (0-4).

3.2. Investigating the prevalence of IPV: Review of surveys

Table 2 depicts the rates of physical IPV found by each of the 11 surveys. Rates for 12 months and lifetime prevalence of physical IPV are described and where possible rates of minor and/or severe violence are provided for these time frames. No surveys examined lifetime rates for minor IPV. All rates are based on participant self-reports of their victimization and perpetration, rather than partner reports, with the exception of surveys 10 and 11.

TABLE 2 ABOUT HERE

3.2.1 Demographic and/or Health Surveys

These surveys sampled men and women in households to provide nationally representative data on a wide range of monitoring and impact evaluation indicators related to the population in general, their health and nutrition (e.g. child health, education, fertility, domestic violence, HIV/AIDS, maternal health, wealth/socioeconomics, women's empowerment, etc.). Two surveys could be grouped into this class.

China's Health and Family Life survey (CHFLS; reported in Parish et al., 2004; Wang et al., 2009) aimed to study antecedents and outcomes of sexual behavior in a large nationally representative sample in China, which could serve as baseline data for future longitudinal research. Experiences of physical IPV were investigated as part of a wider survey, alongside risk factors for physical IPV, such as sexual jealousy, patriarchal values, and dependency. Participants were recruited using official community registers of households and temporary migrants via a stratified sampling procedure. Participants responded to an hour-long computer-based, face-to-face interview in a private neighbourhood hotel room, or in a meeting facility with an interviewer entering the responses in the computer. Only one participant per household was interviewed. Questions about sexual behavior were entered directly by the

respondent in the computer. Interviewers were the same sex as interviewees. On introduction to the general questionnaire, participants were told it was a national study about sexual behavior and health. On introduction to the section that asked about experience of partner violence, no extra or alternate instructions were given: Hence it was filled out in the context of sexual behavior. Respondents were asked to report their own and their partner's perpetration in the previous 12 months and prior to the last 12 months by means of one item "For whatever reason has your partner ever hit you and when did that happen? (Not including in a joking or playful way)" and "For whatever reason have you hit your partner, and when did that happen" (not including in a joking or playful way)?" (University of Chicago Population Research Center, 2003, p.15). Severe IPV was assessed by asking "Has your partner ever hit you hard? (bruised, swelling, bleeding, pain)" (University of Chicago Population Research Center, 2003, p. 15). The survey concluded that a greater proportion of women experienced physical IPV and incurred greater injury than men. On inspection of Table 2, it is apparent that victimization was the same for men and women for minor IPV. Injuries were inferred from severe physical IPV. However, the survey mixed severe acts of physical violence with injury, making it impossible to distinguish between the two.

Despite the absence of an exculpatory preamble to normalize conflict in relationships prior to questions about partner violence (Straus, 1990a), items were presented to respondents in a context that was gender-neutral and free from connotations of crime, violence and personal safety. However, contextualizing questions about partner violence in the context of sexual behavior and health may encourage people to report incidents of violence with all people with whom they have had sexual encounters, including one-off ones with strangers or acquaintances, rather than those deemed to be partners, where an intimacy has ensued over at least a short period of

time. Questions probing physical intimate partner violence were crude, allowing for subjective interpretation of the word 'hit' rather than listing a variety of specific acts that may have occurred. In addition, categorization of severe violence confuses acts of aggression with injury. A severe act may not necessarily result in a severe injury, and as such the two concepts should be separated. This is especially true for male victims of female violence. Men are less likely to experience severe injury from severe acts than women are, due to sex differences in physical strength and size (Stets & Straus, 1990; Straus, 1990a; Straus, 1990b). However, this does not mean to say they are not the victims of severe violence. In addition, injuries categorized as minor by other common research tools (i.e. bruising) have been listed as associated with severe injury in this survey. These methodological issues question the accuracy of measurement of IPV, particularly severe IPV in this survey.

Uganda's Demographic Health Survey (Uganda Bureau of Statistics & Macro International Inc, 2007) aimed to provide information on demographic, health and family planning in a nationally representative sample in Uganda. Experiences of physical, psychological and sexual IPV were investigated in the survey. Participants were recruited from the 2002 Ugandan national Census using multi-cluster sampling. Face-to-face interviews were conducted in respondent households by trained interviewers. Only one participant per household was interviewed. The length of interviews is unknown, as well as the sex of interviewer and interviewee. However, all fieldwork teams included three female and one male interviewer. On introduction to the general questionnaire, participants were told that it was a reproductive and health survey. On introduction to the section that asked about experience of partner violence, participants received the following as part of the preamble:

"..... I am going to ask you about some situations which happen to some women (men). Please tell me if these apply to your relationship with your (last) husband... wife/partner?" (Uganda Bureau of Statistics & Macro International Inc, 2007, p. 429,462).

Respondents were asked to report any victimization experienced from their partner within the 12 months preceding the survey. They were not asked about their own perpetration. Only one participant per household was interviewed. Physical IPV was assessed via seven items: slap; twist an arm or pull the hair; push, shake, throw something at; punch with the fist or something that could hurt; kick, drag, or beat up; try to choke or burn (the person); and threaten or attack with a knife, gun, or any other weapon. The survey concluded that women were approximately three times more likely to experience physical IPV from a partner in the previous 12-months, and two and half times more likely to have experienced it ever (11.5% vs. 34.9% and 19.5% vs. 48% respectively). The survey additionally asked women and men about violence they had initiated against their spouse or intimate partner, via the following item: Have you ever hit, slapped, kicked, or done something else to physically hurt your last husband/partner (for women) or wife/partner (for men) at time when he/she was not already beating or physically hurting you" (Uganda Bureau of Statistics & Macro International Inc., 2007, p. 303). Women and men reported having ever initiated physical violence against their current spouse at rates of 7.2% and 40.9% respectively, while their 12-month perpetration was 3.5% and 14.4%.

Although this study set out to investigate partner violence victimization in a gender- inclusive manner, it contains flaws. It is clear from the Uganda Bureau of Statistics & Macro International Inc. (2007) report that the theory underlying this survey is gender biased, understanding IPV as a health issue predominantly affecting women in

a patriarchal society. Such a priori adherence to a gendered perspective may serve to bias interviewers in the way they frame questions, affecting reporting rates from both sexes (Straus, 1999b). Furthermore, only victimization rates were studied, making it difficult to understand their true meaning, as high victimization rates may be happening in the context of high rates of victim perpetration, or not. Only when we understand both figures can the true nature of partner violence be understood. The focus on victimization may encourage women to report higher rates of this experience and underreport their perpetration. Finally, whilst the IPV-specific questions were introduced with a preamble to norm their experiences, it only achieved this to a certain extent, saying that "some men and women" may experience victimization, rather than norm conflict as something that happens to all couples at some point (Straus, 1999b).

3.2.2. Psychiatric and/or Epidemiological Surveys

Psychiatric and/or epidemiological surveys describe nationally representative surveys that focus on investigating the prevalence of psychiatric disorders (via DSM-III and/or DSM-IV criteria) and their common correlates (e.g. IPV) in the population of interest. Four surveys could be classed into this category.

The 1992 National Co-morbidity Survey (described in Kessler, Molnar, Feurer, & Appelbaum, 2001; Williams & Hanson-Frieze, 2005) aimed to research the prevalence, predictors, and social consequences of psychiatric disorders in a nationally representative sample of men and women in the US. Experiences of physical IPV were investigated in the survey as part of the assessment of potential social consequences of mental health disorders alongside other issues such as marital distress and satisfaction, predictors and consequences of DSM-III-R mental disorders. Participants were recruited using US census data via stratified probability sampling. Participants responded to a two-part, face-to-face interview in their homes. Only one participant per household was

interviewed. Each part of the interview lasted approximately 1 hour. Part 1 included a detailed assessment of mental disorders. Part 2 selected a subsample of participants used in part 1 who screened positive for any mental disorder, and a subsample of respondents who had not screened positive for any mental disorder (n=3537, 1738 men and 1799 women) and asked participants to provide information on risk factors (among them IPV) and social consequences of mental disorders. On introduction to the general questionnaire (Part 1), participants were told it was a national household study about mental health. Sex of the interviewer and interviewee were not matched. On introduction to the section about partner violence (Part 2) participants were simply asked to report on their partner's and their own perpetration from a list of minor (throwing objects, shoving, pushing, grabbing, slapping, and spanking) and severe (kicking, biting, hitting with a fist, hitting or trying to hit with an object, beating up, choking, and burning or scalding) aggressive acts, respondents were asked "how often their spouse (or partner) does any of these things to them and how often they do any of these things to their spouse (or partner) (Kessler et al., 2001: 489): Hence victimization is inferred from the partner's perpetration. IPV-related injuries were not reported. This survey found that women were more likely to perpetrate both minor and severe forms of physical IPV, men to experience slightly greater victimization of minor acts and women severe acts. Overall, the survey showed that women experienced greater victimization.

Whilst this study is framed in a different context from other family violence surveys (see section 3.2.3), it has similar methodology and tests a US sample. Therefore, it is perhaps no surprise that rates are depicted in a similar direction across the different types of surveys. One limitation is the lack of assigned time frame, making it impossible to assert whether respondents are reporting IPV within a 12-month or lifetime period, as surveys simply considered "current" IPV. Therefore, this makes

comparison with other studies using specific timeframes difficult. Additionally, reports of IPV were generated from a subsample overrepresented by mental disorder and thus cannot be generalized to the wider US population.

The 2002 National Survey of Psychiatric Epidemiology (Medina-Mora, Borges-Guimaraes, Lara, Ramos-Lira, Zambrano, & Fleiz, 2005) aimed to investigate several psychiatric disorders in a nationally representative population in urban México. Experiences of physical IPV were investigated in the survey, alongside other types of violence as correlates of Post Traumatic Stress Disorder (PTSD) and other psychiatric disorders. Participants were recruited using 1995 geographical census data of households via stratified probability sampling, and responded to a face-to face computer-based interview in the respondent's house: The interviewer controlled the computer throughout the interview. Only one person per household was interviewed. Sex of the interviewer and interviewee were not matched. On introduction to the general survey, participants were told it was a national study about health and development. The introduction to the section (PTSD module) that contained questions about experiences of IPV stated: "In the next part of the interview, we ask about very stressful events that might have happened in your life (some of these events are listed on the card)" ... "Were you ever badly beaten up by a spouse or romantic partner?" (World Health Organization, 2004a, p. 222-223). Respondents were asked to report their partner's lifetime perpetration of severe physical IPV towards them only, which was used to infer their victimization. They were not asked about their perpetration. Injuries were not reported for partner violence in isolation. It was concluded that women's victimization was ten-fold that of men's. This finding supports the view that IPV is more frequently characterized by female victimization.

This survey found the greatest sex disparity in victimization of those reviewed here. However, despite it fitting the methodological criteria needed to be included, a number of flaws are evident. The focus of the survey was psychiatric disorders and the relationship of all types of violence with post traumatic stress disorder (PTSD). Hence only one crude question was asked to determine rates of severe IPV victimization. Whilst both sexes answered this question, it was framed as being a "very stressful event". This assumes that both men and women will interpret these acts as stressful. The literature shows that women are more likely to be psychologically distressed by IPV (Golding, 1999; Anderson, 2002; Ruíz-Pérez & Plazaola-Castaño, 2005; Próspero, 2008, Afifi, McMillan, Cox, Asmundson, Stein & Sareen, 2009) and hence may be more likely than men to respond to this question positively. Instead questions to both sexes about IPV events should be posed in a neutral way that does not infer what emotions were experienced by the respondents. In addition, it fails to enquire about a whole range of acts that can be classed as physical violence (e.g., slap, push, grab) and severe physical violence (e.g. kick, choke, use knife or a gun). Indeed, research has demonstrated that whilst both men and women use some severe acts at equal frequency, they are qualitatively different in nature (Archer, 2002). Therefore, the rates depicted by this survey are not unexpected, but should not be used to describe the rate of IPV experienced generally by men and women in the population studied.

The 2002 South African Stress and Health survey (reported in Kaminer, Grimsrud, Myer, Stein, & Williams, 2008) aimed to research the prevalence and severity of specific psychiatric disorders and their demographic and psychosocial correlates. Experiences of physical IPV were investigated in the survey alongside other issues such as PTSD, physical abuse during childhood, criminal assault and rape (perpetrator not specified). Participants were recruited using the 2001 geographical

census data of households and hostel quarters via stratified sampling. Participants responded to three-and a half-hour long face-to-face interviews in the respondent's dwelling. Only one participant per household was interviewed, some of them split in more than one session. Sex of the interviewer and interviewee is not reported. On introduction to the general survey, participants were told it was a national study about stress and health. Introduction to the section (PTSD module) about experience of partner violence stated: "In the next part of the interview, we ask about very stressful events that might have happened in your life (some of these events are listed on the card)" (World Health Organization, 2004b, p. 1-2). Respondents were asked to report their partner's lifetime perpetration of severe physical IPV toward them (victimization) by means of one item: "Were you ever badly beaten up by a spouse or romantic partner?" Injuries as a result of IPV were not assessed. As with the 2002 National Survey of Psychiatric Epidemiology in urban México (Medina-Mora, Borges-Guimaraes, Lara, Ramos-Lira, Zambrano, & Fleiz, 2005), female rates of victimization (in this case lifetime prevalence) were ten times higher than male reported rates. Further, the same methodological flaws described in the Mexican study are evident in this survey.

The 2002 Ukraine World Mental Health survey (reported in O'Leary, Tintle, Bromet, & Gluzman, 2008) aimed to investigate psychiatric disorders and their sociodemographic and geographic correlates in a nationally representative sample in Ukraine. Experiences of physical IPV were investigated in the survey, alongside other issues such as witnessing parental aggression, early onset and adult episodes of DSM-IV psychiatric and alcohol disorders. Participants were recruited using geographical census data via multi-cluster sampling, and at a later stage involved randomized addresses. Only one person per household was interviewed. Participants responded to a

two-part face-to-face interview. Part 1 assessed several DSM-IV disorders and was given to the entire sample. Part 2 contained a module on marital relationship and was administered to Part 1 respondents who met DSM-IV criteria for mood or anxiety disorder, or alcohol dependence, and a random sample (16%) of the remaining respondents. Participants answering the IPV section received a booklet in which they were able to read the IPV part avoiding potentially embarrassing and personal questions. Sex of the interviewer and interviewee was not matched. On introduction to the general survey, participants were told that it was a national epidemiologic and health study. On introduction to the section asking about IPV, respondents were asked to report whether they and their partners had had a disagreement and carried out any of the listed items (pushed, grabbed, or shoved; threw something; and slapped or hit), and if so their frequency in the previous 12 months or ever in their lifetime. Men and women reported approximately equal rates of perpetration for both 12 month and lifetime prevalence.

Although most of the acts fall into the category of minor violence according to CTS criteria, their last act "hitting" constitutes a severe violent act. Therefore, rates for minor and severe IPV could not be separated. Further, victimization rates were thought to be underreported because of the difficulty in interviewing respondents in private in their homes. Some participants (particularly women) told interviewers that if their partners found out about their participation, they would be beaten (E. J. Bromet, personal communication, September 3, 2010). Further, methodological problems include 84% of the sample who reported on experiences of IPV met diagnostic criteria for mood or anxiety disorders or alcohol dependence: Thus these disorders are overrepresented in this sample and cannot be generalized.

3.2.3. Family Violence Surveys

Five could be classed as Family Violence surveys. These constituted surveys whose main focus was specifically to understand family violence matters within a nationally representative sample of households. All surveys aimed to determine the prevalence and/or 12 month rates of IPV in US samples. Three also investigated the relationship between alcohol abuse and IPV in men and women.

The 1975 National Family Violence Survey (NFVS) had the main objective of collecting information to test causal theories (e.g. decision making and power in the family). Both the 1975 and 1985 National Family Violence Surveys (Straus, 1990c; Straus, 1990d) investigated the 12 month rates of child abuse and spousal violence. Physical violence and verbal aggression were investigated. Participants were recruited using census data to identify representative groups of the US population (randomized addresses in the 1975 survey, and randomized telephone numbers in the 1985 study). In the 1975 study, participants took part in a face-to-face interview conducted in their households lasting approximately one hour. The 1985 survey interviewed participants over the phone via a random-digit dialling procedure lasting approximately 35 minutes. Both surveys were introduced as national family violence studies in American families. Sex of the interviewer and interviewee was not matched in either survey. On introduction to the questionnaire, participants were told:

"No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, or just have spats or fights because they're in a bad mood or tired or for some other reason. They also use many different ways of trying to settle their differences. I'm going to read some things you and your (spouse/partner) might do when you have an argument" (Straus, 1990d, p.33).

Only one person per household was surveyed. Respondents were asked to report their own and their partner's perpetration in the previous 12 months and prior to that

time. Victimization was calculated on the basis of one partner's perpetration in both surveys. The 1975 and 1985 surveys used slightly different versions of the Conflict Tactics Scale (version N & R respectively) (Straus, 1990e). Severe physical IPV was assessed by five CTS items in the 1975 survey (kicked/bit/hit with fist; hit/tried to hit with something; beat up; threatened with gun or knife; and used gun or knife), and an additional sixth item (choke) was included in the 1985 survey. Physical injury was assessed in the 1985 survey via three separate questions which asked respondents who had been assaulted whether they: had been hurt badly enough as a result of violence that they needed to see a doctor; if they had taken time off from work because of violent incidents; and how many days they had spent in bed due to illness in the last month. From these studies, the authors conclude that during this ten year period, US men and women's perpetration (and victimization) of IPV remained relatively stable and symmetrical, with approximately 12% of both men and women engaging in physical violence and 4% severe violence. Although women reported slightly higher perpetration rates of severe IPV across time, injury rates were similar.

These studies are of high methodological rigor. They set out with the purpose of investigating rates of family violence and as such are designed to specifically elicit this information, unlike many other surveys. Despite both members of the couple not being interviewed, having to verbally report answers to interviewers and the sex of participant and interviewer not being matched, the design has few other flaws. Importantly, the context of the survey is presented as common conflict in relationships and the preamble presents a non-judgemental context implying that a certain level of conflict is normal in intimate relationships, encouraging open and accurate responding. Both surveys used the same methods to determine rates of IPV, allowing for comparison of rates across time, as well as a gender-inclusive approach.

The 1987-88 National Survey of Families and Households (NFSH; described in Sweet, Bumpass, & Call, 1988; Anderson, 2002) aimed to investigate a broad range of family issues in American couples. Experiences of physical IPV were investigated among many other aspects of family life. Participants were recruited using census data to calculate the national probability sample of the US, using additional samples (oversamples) of Hispanic and Black and Puerto Rican men and women to ensure an appropriate size of participants from those ethnic subgroups. Primary participants were surveyed face-to-face on a variety of family life-related topics. However, questions of a sensitive nature such as the three items assessing physical IPV were answered by the primary participants and their partners by filling out a printed questionnaire without the intervention of the interviewer. The spouse/partner of every primary participant was not interviewed but was given a self-report questionnaire to fill out and return to the interviewer. Complete interviews varied in duration, although a mean of 90 minutes (questionnaire included) was scheduled as standard. Printed questionnaires dealing with more sensitive information lasted an average of 30 minutes. Participants responded to English and Spanish questionnaires. Both members of the couple were interviewed. On introduction to the survey, participants were told that it was a national study on family life, issues and processes such as family-living arrangements, histories of marriage, fertility, employment, departures and returns to the parental home, etc. The introduction to the three questions about IPV asked respondents and their partners to report whether any of their arguments had become physical in the past 12 months. If the participants answered positively they were queried on how many arguments during the past year had resulted in "vou hitting, shoving or throwing things" at a partner (Anderson, 2002, p. 855). Conversely, respondents were asked how many arguments resulted with their partner hitting, shoving or throwing something at the respondent. Respondents were

asked on their perpetration and victimization. Lifetime prevalence rates and injuries were not assessed. The introduction to the questions on partner violence was able to normalize partner violence as it was introduced as any argument which resulted in any of the physical acts presented to couples. The survey concluded that IPV physical perpetration is approximately symmetrical, although victimization rates were slightly higher for men than women. Overall, rates were lower than in the NFVS.

The first NSFH presents the same methodological advantages of the NFVS in the way IPV was contextualized. Additionally it surveyed both members of the couple, asking them about their perpetration and victimization; hence corroboration of underreporting bias is possible. Although this study was not presented to participants in the words of a family conflict survey, it was presented as a study of family life and family issues. Additionally, the introduction to the IPV questions helped to legitimize respondents' reports within the context of every day family conflict incidents not associated with clinical conditions. Probably the most important drawback of this study is the low number of acts used to assess IPV. The three items assessing violence in couples refer to "milder" forms of IPV. Other more extreme forms (e.g. choke, beat up, used a knife or a gun, etc.) of violence were left out along with other forms of IPV (such as verbal abuse and sexual IPV) because of the already lengthy interview and questionnaires. It is likely then that if a wider array of mild and severe physical aggression had been used, victimization and perpetration would have been higher. Sex of the interviewer and respondent was not matched, and physical injury as a result of IPV was not assessed. The theoretical framework underlying this study was genderinclusive.

The 1992 National Alcohol and Family Violence Survey (NAFVS; reported in Kaufman-Kantor, Jasinski & Aldarondo, 1994; Jasinski, Asdigian & Kaufman-Kantor,

1997; and Jasinski & Kaufmam-Kantor, 2001) aimed to investigate IPV and alcohol abuse as a correlate in men and women in different ethnic groups in the US. Experiences of physical IPV and verbal aggression were investigated, alongside other issues considered to be risk factors for IPV, such as work-related stress, alcohol abuse and poverty. Participants were recruited using census data to determine the national probability, with an additional sample (oversample) of Hispanic participants to ensure a sample of sufficient size of that ethnic group and subgroups (Kaufman-Kantor et al., 1994). Participants responded to a 67-minute (in Spanish) and a 56-minute (in English) face-to face interview in their households. Only one member per household was surveyed. Interviewer and interviewee sex was not matched. On introduction to the survey, participants were told that it was a national study about alcohol and violent family relationships. The introduction to the section that asked about experience of partner violence was the same as the one used in the 1985 NFVS (using the CTS version R). Respondents were asked to report their own and their partner's perpetration (their rate of victimization) in the previous 12 months. Individuals indicating an absence of a particular violent act were then asked if it had ever occurred: However, no overall lifetime rates for men and women were published. Injuries from participants or their partners were not assessed. It was concluded that women perpetrated slightly higher rates of physical IPV and were also victimized at a higher rate than men in the prior 12 months. This pattern was also true of minor violence perpetration. For severe violence, women perpetrated higher rates than men and were also victimized at lower rates than men.

Whilst similar to the National Family Violence Studies in its methodological approach, the survey was framed as a study of drinking patterns and family violence. This context may have cued participants to think about alcohol-related violent incidents.

In addition, while the survey was not framed as investigating general violence, it was contextualized as family violence, so that the same principle – that people (particularly men) do not interpret relationship aggression as violence – may apply here. As a result, this framework may have elicited under-reporting of minor forms of physical violence. Indeed overall rates are lower than those reported in both National Family Violence studies. This survey used a gender-inclusive theoretical approach.

The 1995 National Alcohol Survey (NAS; Schafer, Caetano, & Clark, 1998; Caetano, Filed, Ramisetty-Mikler, & McGrath, 2005) aimed to investigate alcohol abuse in a nationally representative sample of couples in the US, which allowed comparisons across a 5-year period. Alcohol-related issues were explored alongside experiences of physical (ten items) and sexual (one item) IPV, and other issues such as, approval of marital aggression and childhood violence victimization in both surveys. The 2000 survey was the follow-up part of this longitudinal study but was not included in this review as only incidence and prevalence rates between ethnic groups (Caetano, Field, Ramisetty-Mikler, & McGrath, 2005) were reported, but not by sex. Participants were recruited using census data of 48 contiguous states in the US using multi-cluster sampling. Couples responded to an hour-long face-to-face interview in their households separately (both members were interviewed). Sex of interviewer and interviewee were not matched. The introduction to the general survey was presented as a study on alcohol patterns, associated problems and health. In the 1995 survey 1635 couples were interviewed. Questions about IPV formed a separate module of the survey. The preamble to this section was phrased in the same way as the 1985 NFVS (again, using the CTS, version R). Respondents were asked to report their own and their partner's perpetration in the previous 12 months. Severe physical IPV was based on 6 items of the CTS version R: kicked, bit, or hit with a fist; hit or tried to hit with something; beat up;

choke; threatened to use a knife or gun; and use a knife or a gun (Schafer, Caetano, & Clark, 1998). Injuries were not reported. Findings showed that, overall, women were more likely to perpetrate physical IPV and more men experienced victimization in the 12 month period studied. More men than women were severely victimized (see table 2). In both overall and severe violence rates men underreported their perpetration and victimization more than women did. The theoretical approach used in this survey is gender-inclusive.

Again, whilst similar to the NFVSs in its methodological approach, the survey was framed as a study of drinking patterns and family violence, resulting in the same issues as in the previously discussed 1992 NAFVS (Kaufman-Kantor, Jasinski & Aldarondo, 1994; Jasinski, Asdigian & Kaufman-Kantor, 1997; Jasinski & Kaufmam-Kantor, 2001). However, interviews were conducted with both members of the couple, which was accomplished in only one other study (NSFH; Sweet, Bumpass, & Call, 1988; Anderson, 2002), allowing comparison of victimization and perpetration reports by both members of the couple.

3.3. Investigating the role of role of gender equality on differences on international rates

The GEM figures depicted in Table 2 clearly show that of those countries reviewed, the highest levels of gender equality are found in the US (0.67) followed by South Africa (0.53). Uganda displayed a GEM of 0.22, with women experiencing the highest levels of inequality in this country. China, Mexico and the Ukraine scored 0.48, 0.47 and 0.42 respectively.

4. Discussion

This review set out to explore the true prevalence rate of IPV, a question that has proved controversial throughout past decades, largely due to discrepancies in theoretical approaches used to understand the nature of the social problem and guide methodology

of research surveys. This review aimed to sift through the controversy by systematically identifying surveys of a high methodological standard to answer two research questions. 4.1. Investigating the prevalence of IPV

It is clear that even though methodological standards have been set to screen survey findings in this review, differences in methodology still exist, which make it difficult to determine the true rate of IPV within a particular country. This highlights the need to understand the quality of research methods used before accepting the validity of survey results, and it warns against taking figures commonly reported in popular literature to emphasize the magnitude of men's violence to women, at face value unless it is clear that they have received methodological scrutiny.

Three types of surveys were identified. Family Violence surveys were rated as having the highest methodological standards and it is clear that multiple surveys using this methodology found approximately equal rates of perpetration and victimization by men and women, and in some instances slightly higher female perpetration. This type of survey is unique to the US, and results across these surveys are consistent enough to conclude that on average the US is characterized by approximately equal rates of perpetration and victimization of physical IPV by both sexes. For the most part, Demographic and/or Health surveys and Psychiatric/Epidemiological surveys found that women experienced greater IPV victimization, and perpetrated less physical violence, than men. However, it is evident from this review that the methodology used in demographic and/or health surveys and psychiatric/epidemiological surveys is often not conducive to men and women reporting IPV from an intimate partner, particularly for men. This is largely due to methodological designs that do not manage to fully tap into partner violence in the everyday context it takes place. Therefore, emphasis should be placed on the methodology and resultant rates determined by the Family Violence

surveys identified in this review. Family Violence surveys illustrate the importance of designing surveys specifically for the purpose of understanding family violence in its own right, rather than as a correlate of other mental disorders or as part of a wider investigation of other social problems. However, as Archer (2006) has suggested, rates of IPV between the sexes may vary depending on the patriarchal social structure of the country studied. Therefore, gender equality in the country of interest should also be considered when interpreting rates of IPV and it may not be possible to generalize the rates identified in one nation to a global level.

4.2. Investigating the role of gender equality on differences in international rates

It is clear the US had the highest GEM of the six countries studied in this review, and therefore perhaps it is no surprise that surveys conducted in this country found rates of approximate symmetry. Indeed, even the Psychiatric/Epidemiological survey conducted in the US (Kessler, Molnar, Feurer, & Appelbaum, 2001) revealed higher rates of symmetry between the sexes than other surveys of this type. However, unlike other surveys of this type it did mimic methodology of the NFVS (Straus, 1990c; Straus, 1990d) closely, and therefore the context in which questions were posed was more conducive to reporting of IPV by both sexes. Therefore, whilst high levels of gender equality could explain why US surveys found symmetry, they were also of the highest methodological rigor that is conducive to identifying symmetry between the sexes if present.

Conversely, the survey conducted in Uganda with the estimated lowest GEM, found much higher rates of female victimization. These results show that countries scoring at the extremes of the GEM in this review differed in their results, with gender equality in the US associated with symmetry, and gender inequality in Uganda associated with higher female victimization. Countries with moderate GEM also found

high rates of female victimization (South Africa, China, Mexico and the Ukraine). However, the methodological rigor of these studies (including Uganda) was of low – moderate quality at best. It is impossible to separate out the effects of gender equality from methodological rigor. As different countries adopted different methods to investigate the problem, it is not possible to compare surveys or the effects of gender equality on differences in international rates of physical IPV.

5. Conclusion

This review has demonstrated that the majority of surveys of sound methodology have been specifically designed to investigate family violence and have been conducted in the US. Further research of this nature is warranted internationally to determine and compare rates of family violence in different countries. Only when a consensus is reached about the best methods to adopt across the board, can consistency be reached in understanding the magnitude and nature of the social problem in countries with varying levels of gender equality. Such findings have serious implications for policy and practice in each nation.

Currently, IPV is commonly understood from a perspective which perceives the problem to be predominantly one of men's violence to women, and the majority of resultant research, policy and practice follows this framework (e.g., Respect 2008). However, as this review highlights, it is imperative that research surveys adopt a gender inclusive approach, and further methodology conducive of both sexes reporting their experiences, if the true nature of the problem is to be understood.

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Table 1 Quality rati	Table 1 Quality ratings of survey methodology							
Country and date of survey	d Author	Sample age	Measures	Survey context	Framing of questions	Couples interviewed	Sex matching	Total score
Demograph	Demographic/Health Surveys							
1.China	Parish et al. 2004 Wang et	20-64	2 behavioral	Sexual behavior	No not framed	No	Yes	
1999-2000			questions	and health				
	Quality Assessment	0	1	0	0	0	1	2
2.Uganda	USAID/UNICEF 2007	w15-49	Modified	Reproduction and	gression but	No	I	
2006		ml5-54	CTS-2	health	not specific to relationships, asked to list			
					acts experienced in relationshins			
	Quality Assessment	0	7	0	1	0	0	3
Psychiatric/	Psychiatric/Epidemiological Surveys							
3.USA 1990-	0- Kessler et al 2001;	15-54	CTS-1	Mental health	asked to list acts done by	No	I	
92	Williams & Hanson-Frieze				participants and their			
	2005				spouses relationships			
	Quality Assessment	0	2	0	0	0	0	2
4.México	Medina-Mora et al. 2005	18-65	WMH-CIDI-	Health and	acts introduced as very	No	No	
2002	Quality According to	C	15	development	stresstul life events		C	
5 I Il roine		0 10 0000	0 2 haharriaral	U Enidomialacia and	U actrad to list acts	U Mo	N.S.	0
2002	0 1041 9 1 41. 2000		questions	health study	experienced in relationship			
	Quality Assessment	7	1	0	1	0	0	4
6.South Africa 2002	Kaminer et al. 2008	18-over	WMH-CIDI	Stress and health	acts introduced as very stressful life	No	I	
	Quality Assessment	1	0	0	0	0	0	1

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Family Viol	Family Violence Surveys							
7.USA 1975	k Straus 1990c, Straus & Kaufman-Kantor, 1994	18-over	CTS-1	Family violence in American families	normalized relationship conflict, asked to list acts experienced in relationship conflict	No	I	
	Quality Assessment	1	2	1	5	0	0	9
8.USA 1985	k Straus 1990c, Straus & Kaufman-Kantor, 1994	18-over	CTS-1	Family violence in American families	As 7	No	No	
	Quality Assessment	1	2	1	2	0	0	9
9.USA 1987 88	9.USA 1987- Anderson 2002 88	19- over	3 CTS items	general family life	asked if any disagreements had become physical	Yes	No	
	Quality Assessment	1	1	1	5	1	0	6
10.USA 1992	Kaufman-Kantor et al. 1994	18-over	CTS-1	alcohol and family violence	As 7	No	No	
	Quality Assessment	1	2	0	2	0	0	5
11.USA 1995	Schafer et al. 1998 Caetano et al. 2001	18-over	Modified CTS-1	alcohol patterns, associated problems and health	As 7	Yes	No	
	Quality Assessment	1	2	0	2	1	0	9
<i>Note</i> . WMH Diagnostic I	<i>Note.</i> WMH-CIDI = World Mental Health Composite International Diagnostic Interview. WMH-CIDI 15=World Mental Health Composite International Diagnostic Interview 15 th version. , CTS1= Conflict Tactics Scales versions N or R. CTS2= Revised Conflict Tactics Scales, - = not recorded	omposite Interr Conflict Tactics	national Diagnosti s Scales versions]	ic Interview. WMH-CII N or R. CTS2= Revised	<pre>OI 15=World Mental Health (I Conflict Tactics Scales, - =</pre>	Composite Internet not not not not not necorded	ernational	

Table 1 (continue)

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of survey perpetration (p) rate (%) victimization (v)/ perpetration (p) rate (%) I2 mth Lifetime 12 mth M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M M W M W M W M W M W M W M W M W M W M W M W M W M W M W M W M W M W </th <th>Country and date</th> <th>GEM</th> <th>Overall v</th> <th>Overall victimization (v)</th> <th>tion (v) /</th> <th></th> <th>Minor</th> <th></th> <th>Severe</th> <th>Severe victimization (v)</th> <th>$\frac{1}{100}$ (v) /</th> <th>/</th> <th>Physical injury rate%</th> <th>injury 1</th> <th>ate%</th>	Country and date	GEM	Overall v	Overall victimization (v)	tion (v) /		Minor		Severe	Severe victimization (v)	$\frac{1}{100}$ (v) /	/	Physical injury rate%	injury 1	ate%
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	of survey		perpetrat	ion (p) ra	ate (%)		victimiza perpetrati rate (%)	tion (v) / on (p)	perpetr	ation (p) r	ate (%)				
M W M W M W M W M W sith surveys			12 mth		Lifetim	e	12 month		12 mth		Lifeti	me	12 mth	Li	etime
alth surveys -48 ^a 11p 7p 37.4p 18.7p - 5v 12v 12v 5v 5v 5v 7.2p ⁶ - - - - 5v 12v 22 ^b 13.7p ⁶ 3.5p ⁶ 40.1p ⁶ 7.2p ⁶ - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -			Μ	W	М	M	М	W	Μ	W	Μ	W			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Demographic health	1 surveys													
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.China 1999-	$.48^{a}$	11p	dL	37.4p	18.7p					5v	12v			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2000		5v	5v	17.8v	30.6v									
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2.Uganda 2006	.22 ^b			40.1p ^c	7.2p ^c							32.8 43.	.7 29	6 42.6
demiological surveys $\begin{array}{c ccccccccccccccccccccccccccccccccccc$)				19.5v	48v									
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Psychiatric/ epidem	iological surve	eys												
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	3.USA 1990-92	.67 ^a	9.6p ^d	$16.9p^{d}$			15.4p ^d	17.7p ^d	$2.7p^{d}$	$6.2p^{d}$					
xico 2002 $.47^a$ $.0.8v$ $10.7v$ aine 2002 $.42$ $11.4p$ $11.3p$ $18.7p$ $18.5p$ $5.8v$ $12.7v$ $8.6v$ $20.1v$ th Africa $.53^a$			$12.33v^{d}$	$15.5v^{d}$			$18.4v^{d}$	$17.4v^{d}$	$5.5v^{d}$	$6.5v^{d}$					
aine 2002 .42 11.4p 11.3p 18.7p 18.5p	4.México 2002	.47 ^a							0.8v	10.7v					
5.8v 12.7v 8.6v 20.1v th Africa53 ^a	5.Ukraine 2002	.42	11.4p	11.3p	18.7p	18.5p									
th Africa53 ^a			5.8v	12.7v	8.6v	20.1v									
	6.South Africa 2002	.53 ^a									1.3v	13.6v			

Table 2 *(continue)*

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7.USA 1975	.67 ^a	12.1p	12.1p 11.6p				<u>3.8p</u>	3.8p 4.6p				
8.USA 1985	.67 ^a	11.3p	11.3p 12.1p				3.0p	3.0p 4.4p	1	2.1 2.6		
9. USA 1987-88	.67 ^a	8.0p	8.0p									
		9.0v	7.0v									
10.USA 1992	.67 ^a	8.3p	9.9p		9.2p	9.4p	1.7p	1.7p 5.8p				
		9.1v	11.5v				3.3v	2.3v				
11.USA 1995	.67 ^a	9.2p	14.6p				$1.7 p^{e}$	$1.7p^{e}$ $8.9p^{e}$				
		10.6v	10.6v 9.8v				$4.9v^{e}$	4.9v ^e 5v ^e				

^aScores determined by Archer (2006). ^bGEM was not available so it was assigned Sudan's score, the only neighbouring country with an available (she) was not beating or physically hurting you?" (Uganda Bureau of Statistics, 2007: 303). ^dRates were obtained giving no time frame although respondent my means of one item: "have you ever hit, slapped kicked, or done anything else to physically hurt your... partner at times when he GEM, determined by United Nations Development Programme Human Development Report (1997). "Self-report of violence initiated by the authors consider it to be 'current' violence this is why it is here displayed as a 12-month prevalence rate. ^eexcluded forced sex.