The environmental factors that cause sexual harassment

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ABSTRACT
This paper reports the results of a research project on the environmental factors that contribute to incidents of sexual harassment (SH) for Australian nurses. Data for this study was collected from 538 qualified and student nurses working in a sample of Australian hospitals. A model is introduced that examines organisational variables and correlations to SH. The model was tested via structural equation modeling and revealed that an unbalanced job gender ratio, a nurses’ negative perception of their supervisor’s management style and no prior socialization are all positively associated with SH.

INTRODUCTION
Estimates of the percentage of employees who have experienced sexual harassment (SH) vary from 42% to as high as 97% (Warfel, 2005; Fitzgerald et al., 1997; USMSPB, 1995). Actual incidence rates are difficult to determine because of the differences in the research method employed (e.g. sample size and diversity, definition / categorisation of SH, and time frame). Nevertheless, in a review of 28 large-scale studies, from various industries Cogin (2002) computed the median percentage of employees who have experienced SH at some point in their working career as 67%.

SH has significant negative psychological and job-related consequences for victims that have been widely reported in the literature. The potential psychological effects of a SH incident include lowered self-esteem, difficulty with interpersonal relations, increased stress, depression, frustration and anxiety (Paludi & Barickman, 1991). Those who are sexually harassed display common coping strategies: i.e., manipulation, indirect expression of anger, denial or minimization of the incident, and compliance; as well as feelings of powerlessness, aloneness, fright, humiliation and incidence of post-traumatic stress disorder (Diaz & McMillan, 1991).
The somatic effects of SH include nausea and gastrointestinal disturbances, headaches, exhaustion, insomnia, jaw tightening, teeth grinding, and weight loss or gain. Numbness and tingling in extremities, pains in the chest and shortness of breath are also common symptoms of SH (Dansky & Kilpatrick, 1997).

The effects on work performance have also been widely documented. Glomb et al. (1999) suggest that SH can have a very detrimental effect on both morale and satisfaction. They found that job performance was affected in 75% of “victims” surveyed, largely through reduced levels of concentration following sexual innuendos. A reduction in job motivation and confidence in skill levels was also reported. In addition, Gutek and Koss (1993) described decreases in job satisfaction and commitment. They observed that SH is able to totally affect career plans with “victims” giving up employment or being willing to move to less well-paid jobs or ones which offer less opportunity for advancement in order to avoid harassment.

The effects of SH are not limited to the person who experiences it. SH in an organisation exacts financial and productivity costs. The most obvious business outcome is the direct cost associated with damage settlements and court costs. Connected with these expenses are the costs of investigating a complaint which Stanko and Miller (1996) estimates at US $200,000 for each complaint found to be valid. In this respect, allegations of SH will affect a company’s bottom line directly through litigation and settlement costs, redirection of management attention, and loss of shareholder confidence (Pearson, 1997).

The indirect business outcomes of SH have been estimated to be far more costly (Glomb et al., 1999). Outcomes include decreased productivity, low morale, turnover and absenteeism not only on the harassed employee but co-workers who may witness and be distracted by the situation (Fitzgerald et al., 1997). In addition, while it has been noted that SH affects work performance and emotional well-being, it is also likely to affect the job performance of the harasser. An individual who devotes work time and energy to his / her own personal needs for power is divesting the company of those same energies needed to perform work optimally (Cogin, 2002).

In a similar vein, Fitzgerald et al. (1997) report that although 50% of “victims” of SH say that they simply try to ignore it, these same “victims” experience an average productivity decline of about 10%. They also found that about 24% of harassment “victims” take leave to avoid the harasser, while 10% choose to leave their jobs at least in part because of the harassment.

Despite the growing prevalence of SH across industries (Glomb et al., 1999) the majority of research has focused on the frequency of SH and the associated outcomes. While this information provides strong
justification for SH strategies to be implemented within organisations, it does not help human resource management (HRM) professionals adopt a strategic orientation to eradicating this growing problem (Brockbank, 1999). In their commentary on the state of HRM in Australia, Michelson and Kramar (2003) suggest that HRM needs to be integrated and strategically focused. A shift away from an operational perspective that reacts once a SH claim is made towards initiatives geared at prevention is required. Operationalizing this argument requires an understanding of what heightens a person’s vulnerability to being sexually harassed. Despite the progress that has been made on understanding this phenomenon, researchers know little about what the external factors are that make a person more susceptible to SH.

This research closes this gap in HRM theory by establishing the contextual factors that heighten an individual’s probability of being harassed. In addition, unlike other research efforts which have focused on the SH of women1, this study will not study women in isolation, but will examine SH non-exclusively because of the increasing numbers of men who experience it, as well as growing incidences of same gender harassment (Uggen & Blackstone, 2004; Cogin, 2002).

In this paper, a model that examines three characteristics of an employment environment (job gender ratio, management style of a supervisor and prior socialization) and incidence of SH is introduced. This study illuminates some of the causes of SH that have not been investigated previously. Following a discussion of the results, future directions for research and practical implications for HRM are given. At a time when containment of human capital costs is a widespread concern, data relevant to counterproductive behaviours in the workplace, such as SH should be of interest to researchers and HRM professionals.

THEORETICAL BACKGROUND ON DEFINING SH

The majority of SH studies (which typically are derived in the USA), are descriptive in nature and use surveys of self-identified “victims” to draw conclusions (Fitzgerald et al., 1997). Various foci have been addressed including the frequency of harassment, perpetrator traits, and “victim” characteristics (Fitzgerald et al., 1997). Much of the early research however, was conducted with widely varying definitions of what constituted SH, leading to difficulties in comparing studies, inflated prevalence rates, and a generally confusing body of literature. Work by Fitzgerald and her colleagues addressed the definitional problems surrounding SH by developing the Sexual Experiences Questionnaire (SEQ) (Fitzgerald et al., 1995). In this instrument SH is defined as a behavioural construct consisting of three dimensions: (1) gender harassment: insulting verbal and nonverbal behaviours conveying insulting, hostile, or degrading attitudes towards a

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1 Some studies have surveyed a large population only to eliminate male responses (Waldo, Berdahl & Fitzgerald, 1988; DuBois et al., 1998). In light of the increased incidence of SH of males and same gender harassment (Cogin, 2002) such an approach is stereotypical and outdated.
woman; (2) unwanted sexual attention: verbal and nonverbal behaviors that are offensive, unwanted and unreciprocated (e.g., unwanted touching or grabbing), and (3) sexual coercion: behaviours using bribes or threats, and / or making job-related benefits contingent upon cooperation. The advent of the SEQ has led to greater consistency in conceptualization and measurement of SH.

EVALUATION OF EXISTING SH MODELS

In developing a framework for this study a number of SH models were evaluated. Each model is summarised below, followed by a critique.

The Biological model holds that SH is not actually harassment and, consequently, does not have deleterious consequences, is not sexist, and is not discriminatory (Tangri et al., 1982). Rather, behaviour labelled as SH is a manifestation of the natural attraction between men and women. This model assumes that men have stronger sex drives than women, and therefore, they behave in a sexually aggressive manner both in the workplace and other settings.

The Organisational model assumes that organisations facilitate SH through power differentials created by hierarchal structures (Tangri et al., 1982). Individuals in legitimate positions of authority have the opportunity to abuse their power for their own sexual gratification through the harassment of subordinates. Harassment offers a way for superiors to intimidate and to control their subordinates. In addition to power differentials, other organisational characteristics are viewed in this model as contributing to incidence of SH. These include contact with the opposite sex on the job, the ratios of males to females in the workplace, occupational norms, job functions, job alternatives, and the availability of grievance procedures.

The Sociocultural Model (Farley, 1978: MacKinnon, 1979) proposes that SH is a manifestation of a larger patriarchal system. It addresses the societal context in which SH occurs. This model posits that SH in the workplace is a manifestation of general male dominance (Farley, 1978; MacKinnon, 1979). According to this model, harassment is one mechanism for maintaining male dominance over women, both occupationally and economically, by limiting their growth or by intimidating them to leave the work arena. This model holds that men and women are socialised in ways that maintain this structure of dominance and subordination. Males are rewarded for aggressive behaviour, whereas women are socialised to be passive, to avoid conflict, to be sexually attractive, and to feel responsible for their own victimization (Tangri et al., 1982).

The Four-factor model (O’Hare & Donohue, 1998) argues that the variables related to SH can be grouped into four factors that must be met for harassment to occur:

1. Motivation, such as sexual attraction or a desire for power.
2. Overcoming *internal* inhibitions against harassment, such as viewing SH as illegal or immoral.

3. Overcoming *external* inhibition against harassment, such as organisational mechanisms found in explicit grievance procedures and clear consequences to harassers.

4. Overcoming “victim” resistance, such as the target’s ability to recognize and stop inappropriate behaviour.

Factors 1 and 2 address individual variables related to the harasser, while factor 3 addresses situational and organisational relevant variables. Factor 4 addresses individual factors related to the potential “victim” of SH. For SH to occur all 4 factors must be satisfied (as seen in Figure 1).

<table>
<thead>
<tr>
<th>Factor 1 – Motivation</th>
<th>Factor 2 – Overcoming internal inhibitors</th>
<th>Factor 3 – Overcoming external inhibitors</th>
<th>Factor 4 – Overcoming victim resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harasser has a:</td>
<td>Harasser:</td>
<td>Organisation:</td>
<td>Target</td>
</tr>
<tr>
<td>✷ Need for power</td>
<td>• Fears reprisals</td>
<td>• Clear and explicit grievance procedures</td>
<td>• Skills to be assertive</td>
</tr>
<tr>
<td>✷ Need for control</td>
<td>• Fears rejection</td>
<td>• Consistent punishment of SH incidences</td>
<td>• Willingness to make a formal complaint</td>
</tr>
<tr>
<td>✷ A sexual attraction</td>
<td>• Regards behaviour as unethical or morally wrong</td>
<td>• Culture of professionalism</td>
<td></td>
</tr>
<tr>
<td>✷ Sexist attitude</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: The four-factor model of SH (O’Hare & Donohue, 1998)

*The Sex-splilover model* (Gutek & Morasch, 1982) attributes SH to the carryover into the workplace of gender-based expectations that are irrelevant to, and inappropriate at work. According to this model, SH is most likely to occur in work environments where the sex ratio is skewed in either direction. For women in male-dominated or in female-dominated work, sex role becomes a more salient feature than work role, thus facilitating SH. In the male-dominant work environment, a women’s gender is a salient feature because of her singularity and distinctiveness.

Tangri et al. (1982) tested the first three models in an analysis of the data (more than 10,000 respondents) from the USMSPB study (1982). Overall, the data did not support the natural / biological model, with only limited support for the organisational and sociocultural models. This analysis suggests that these models are not sufficient to fully explain the causes of SH.
The models also appear to be out of date with today’s thinking. They do not account for same gender SH, and the female in the role of the harasser each of which has become more prevalent (Cogin, 2002; DuBois et al., 1998). Indeed, between 1994 and 2000, the number of SH complaints filed by men in Australia with the Human Rights and Equal Opportunity Commission has doubled (HREOC, 2002). Also, subsequent research has determined SH to be more associated with power than sex (Pryor & Whalen, 1997; Segrave, 1994; Jones, 1996; Rosell et al., 1995), contradicting the core assumptions made by these models.

Gutek and Morasch (1982) found that the Sex Spillover model held up well under empirical analysis. They found that women who were employed in non-traditional jobs experienced more SH behaviour and more negative consequences from SH than the average workingwoman. They also reported that non-traditionally employed women experienced more harassment than women in traditional female jobs.

Despite a lack of empirical evidence in the literature to support the four-factor model, it appears to incorporate aspects of the organisational and sociocultural models, and is therefore more comprehensive than the other models. However, there has not been enough research on the factors of the four-factor model and as a result the causes of SH remains largely unknown.

**CAUSES OF SH**

While O’Hare and Donohue’s (1998) four-factor model recognizes the importance of other organisational variables as a cause for SH it does not consider job gender ratio, management behaviours exhibited by a supervisor, or prior socialization in the construct of “external inhibitors”. While job gender ratio has been determined as a cause of SH, prior socialization has not been studied recent research. As such, there are a number of theoretical gaps in the literature. In an attempt to develop a framework for the study of SH, a new framework has been developed which further explores the organisational variables (Factor 3) of O’Hare and Donohue’s (1998) four-factor model by examining job gender ratio (from Gutek & Morasch’s [1982] Sex Spillover model), and the role the supervisor plays as protector or guardian (De Coster et al., 1999).

**Prior Socialization**

Prior socialisation is a term used by Weber-Burdin and Rossi (1982). They found that a prior working relationship between individuals usually engenders lower ratings of SH. Collins and Blodgett (1981) similarly found that when a prior working relationship existed a person would be less likely to view a sexual interaction as harassment. Weber-Burdin and Rossi (1982) and Collins and Blodgett’s (1981) studies however, both focus on office workers. Madison et al.’s (2002) research on perioperative nurses provides
alternate findings. The authors present qualitative evidence which suggests the familiarity and bonding that develops between staff members in an operating theatre creates favourable conditions for SH.

**Job Gender Ratio**

Since the sex spillover model was first reported in the literature (Gutek & Morasch, 1982) several studies have examined the effect of an unbalanced gender ratio on SH. Schilling and Fuehrer (1991:126) argued that fewer incidences of SH would be expected in sex-balanced organisations because there would be “less demand for men and women to behave in sex-stereotypic ways”. More recent investigations have also found that an unbalanced job gender ratio results in increased SH incidents (Jackson & Newman, 2004; Vance et al., 2004). However, Grieco’s large scale research study (1987) on SH in the nursing profession (an occupation that has globally been resourced mainly by women)\(^2\) reported a 76% incidence rate of SH. Morgenson (as cited in Segrave, 1994:10) went so far as to predict, “SH would decline” as women continued to enter the workplace and balance the gender ratios. Segrave (1994:10) however, found “no evidence to support that idea and much to discredit it”. More recently, Fitzgerald et al. (1997) speculated that job gender ratio to be an important factor contributing to prevalence of SH incidences. There appears to be significant contradictory evidence in the literature on the effect of job gender ratio on SH.

**Management Behaviours**

While the four-factor model recognizes the importance of organisational variables in predicting SH, it fails to acknowledge that the management behaviours exhibited by a supervisor could be a central factor in explaining SH.

The literature on employee abuse suggests that the likelihood of employee abuse or bullying is increased when working under the supervision of managers who demonstrate certain behaviours. In particular, De Coster et al.’s (1999) research finds that employees under managers who are unsupportive of abusive behaviours are less likely to be abused. They suggest that supportive supervisors may serve as capable guardians against mistreatment. This can be viewed in two ways. First, supportive supervisors may be more proactively protective of potential “victims”. Secondly, the presence of a supportive supervisor may increase potential employees’ ability to serve as their own ‘guardians’. In other words, individuals with supportive supervisors are likely to feel more confident that their supervisor will support them if they proactively attempt to protect themselves from abuse. The literature on bystander intervention (see Bowes-Sperry &

\(^2\) The Australian Institute of Health and Welfare (2000) estimates that 89% of qualified nurses in Australia (permanent residents) are female. Despite efforts to attract men to the profession, the numbers have not altered significantly in the last decade.
O’Leary-Kelly, 2005) supports the development of a culture where others feel an obligation to step in to prevent abuse.

An opportunity exists to apply the learnings from studies on abuse to SH. In line with the four-factor model this equates to increasing the strength of factor 3, via the external inhibitions (positive management behaviours) and factor 4 through victim resistance (perceived protection from SH). O’Hare and Donohue (1998) suggest that an increase of strength in each of the factors makes it more difficult for a harasser to overcome impediments to SH.

The SH models described above have neglected to study prior socialization and management behaviours. In addition, there is a confusing body of knowledge surrounding job gender ratio. In developing a framework for the study of SH, a new model that adopts the SEQ for the measure of SH (Fitzgerald, et al. (1995) and draws on contemporary research is introduced (figure 2). This model contributes to HRM theory by further exploring these organisational variables as causes of SH. While these factors are discussed in the literature, their empirical and synergistic effects have not been formally linked with SH, making this study an original piece of work that contributes to the HRM literature. Such knowledge allows HRM professionals to plan a workforce where SH is minimized. This model will test whether these variables effect SH and investigate whether multiple relationships exist.

Figure 2: Proposed SH model
The hypotheses statements are listed below.

\( H_1 \) There will be a significant positive relationship between an unbalanced job gender ratio and gender harassment

\( H_2 \) There will be a significant positive relationship between an unbalanced job gender ratio and unwanted sexual attention

\( H_3 \) There will be a significant positive relationship between an unbalanced job gender ratio and sexual coercion

\( H_4 \) There will be a significant positive relationship between an employees’ negative perception of their supervisor’s management style and gender harassment

\( H_5 \) There will be a significant positive relationship between an employees’ negative perception of their supervisor’s management style and unwanted sexual attention

\( H_6 \) There will be a significant positive relationship between an employees’ negative perception of their supervisor’s management style and sexual coercion

\( H_7 \) There will be a significant positive relationship between no prior socialization and gender harassment

\( H_8 \) There will be a significant positive relationship between no prior socialization and unwanted sexual attention

\( H_9 \) There will be a significant positive relationship between no prior socialization and sexual coercion

**METHODS**

The health care setting was chosen as a context to study SH and test the model (figure 2) for several reasons. First, the environment is sexualised because the work involves seeing, touching and talking about people’s body parts on a regular basis. Some researchers suggest that such behaviours and discussions can encourage increased incidence of SH (e.g. Pryor & Whalen, 1997). Second, SH in the nursing profession presents many difficulties that alternative professions do not exhibit. For example, it has been argued that when the work gender ratios are skewed, traditional gender based roles, such as the female caregiver and the male protector and controller inappropriately spill over into the workplace (Vance, Ensher, Hendricks & Harris 2004). The nursing profession is primarily resourced by women allowing the testing of job gender ratio on SH. Finally, it has been found that SH is more likely to occur in hierarchical organisations (Antecol & Cobb-Clark, 2004), and the health care system is based on longstanding professional and gender hierarchies.

The population for this study is potentially all registered, enrolled or student nurses working in an Australian hospital. For the purpose of this research, and in order to ensure a manageable research cohort, the population has been restricted to Australian public hospitals in New South Wales and Victoria (city and rural
areas). In addition, student nurses were restricted to those who have spent a minimum of six months training in a public hospital in Sydney, New South Wales. In the full course of a nursing degree, students spend no more than 12 months in a hospital. Data was collected via a questionnaire that was mailed to each nurses’ home address by their employing hospital or university. The researcher was not given the name of any respondent. Prior to the actual delivery of the questionnaire a pilot study was administrated to more than fifty respondents. The questionnaire was then modified according to suggestions made.

607 responses were obtained from the 2489 questionnaires mailed, giving a response rate of 24.3 per cent. 40 of the responses were returned from nursing clerks that could not be considered part of the targeted population, so were disregarded. 29 questionnaires were returned as undeliverable. The usable responses were then 538 (21.6%). Responses were obtained from nurses’ working in eight different hospitals in city and rural regions.

The data available from AIHW and the 2001 Australian census clearly describes the total nursing population and allows for assessment of the representativeness of the sample. Despite a relatively low return rate for the questionnaire, confidence in the representativeness of the usable questionnaires was supported by demographic comparisons with the targeted population. Moreover, by sampling a geographic area containing a variety of specialty areas in both city and rural hospital settings, generalisation of the findings was improved. In light of the information available the representativeness of the research sample was considered good. Respondent characteristics are given in table 1.

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>442 (82.2%)</td>
</tr>
<tr>
<td>Male</td>
<td>96 (17.8%)</td>
</tr>
<tr>
<td>n = 538</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 21 years</td>
<td>154 (28.6%)</td>
</tr>
<tr>
<td>22 – 29 years</td>
<td>189 (35.1%)</td>
</tr>
<tr>
<td>30 – 39 years</td>
<td>67 (12.5%)</td>
</tr>
<tr>
<td>40 – 49 years</td>
<td>91 (16.9%)</td>
</tr>
<tr>
<td>50 + years</td>
<td>37 (6.9%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years experience as a nurse</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student nurse at university with a minimum of 6 months and maximum 12 months hospital training experience</td>
<td>251 (46.7%)</td>
</tr>
<tr>
<td>Qualified less than 1 year</td>
<td>23 (4.3%)</td>
</tr>
<tr>
<td>Qualified between 1 and 3 years</td>
<td>29 (5.4%)</td>
</tr>
<tr>
<td>Qualified between 3 and 5 years</td>
<td>47 (8.7%)</td>
</tr>
<tr>
<td>Qualified between 5 and 10 years</td>
<td>62 (11.5%)</td>
</tr>
<tr>
<td>Qualified more than 10 years</td>
<td>126 (23.4%)</td>
</tr>
</tbody>
</table>

Note: Some percentage values do not add up to 100% due to rounding
Table 1 Full Sample Characteristics

MEASURES
Each variable measured is represented by a discrete, valid and reliable measure sourced from studies undertaken by researchers in HRM, psychology, management, and SH. In addition, a number of biographical items were also used to assist with the analysis of data.

SH was measured by a revised version of the Sexual Experiences Questionnaire (SEQ) developed by Fitzgerald et al. (1995). The SEQ questionnaire is generally considered the most psychometrically sound measure of SH (Arvey & Cavanaugh, 1995). It presents respondents with behavioural items describing the three types of SH, which have been confirmed empirically in factor analysis of the instrument (Fitzgerald et al., 1995; Gelfand et al., 1995).

As defined by Fitzgerald et al. (1995) and the Human Rights and Equal Opportunity Commission (HREOC) (2002) gender harassment, unwanted sexual attention and sexual coercion include the following:

**Gender Harassment**
- Suggestive stories or jokes (verbal, written or email) or sexual material in the workplace (e.g. cartoons, calendars etc.)
- Suggestive remarks about appearance or sexual activity
- Staring or leering
- Being asked out on a date or “to get together for a drink”

**Unwanted Sexual Attention**
- Crude sexual remarks
- Attempts to draw another into a discussion about personal or private sexual matters
- Propositions for sexual activity
- Being deliberately touched

**Sexual Coercion**
- A person deliberately exposing their genitals and / or breasts
• A person making attempts to fondle, touch or grab
• Forceful attempts to touch, fondle, kiss or grab
• Poor treatment for not cooperating sexually
• Implied career benefits for sexual cooperation
• Attempts made to have sexual intercourse
• Forceful attempts made to have sexual intercourse

The items listed above measured SH using a closed ended Likert scale. The scale was arranged (never, rarely, sometimes, often, all the time) and designed to yield equal-appearing intervals between categories. Respondents were asked whether they had experienced any of the behaviours listed that were *accompanied by feelings of humiliation, embarrassment or discomfort* in the previous 24 months.

The legal definition of SH identifies the importance of the “victim’s” evaluation of the harassing behaviour. Although some behaviours are direct and extreme (e.g. sexual acts in lieu of job security) and are consistently regarded as SH, other behaviours (e.g. jokes and pranks) are more ambiguous and seen as harassing by some but not by others. Behaviour that may be acceptable and even desirable to one employee may be intolerable to another. Therefore, harassment is a matter of interpretation. The SEQ recognizes the ambiguity in the definition by prefacing questions with a statement that asks respondents whether the behaviour resulted in feelings of embarrassment, humiliation or intimidation. This is aligned with the legislation in Australia. ³

**Job Gender Ratio**

Despite efforts to attract men to the nursing profession (AIHW, 2000), the ratio of women to men is uneven (in Australia, 89% of nurses are female). In this skewed gender ratio a high incident rate of SH might be predicted, however, in female dominated occupations, this is not the case (Jackson & Newman, 2004; Vance et al., 2004). This study attempts to explain the high prevalence of SH in the nursing profession which is regarded a female dominated occupation (AIHW, 2000). ⁴

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³ The legal test for SH in Australian Federal law contains three essential elements: the behaviour must be *unwelcome*, it must be of a *sexual nature*, it must be *reasonable* in the circumstances that the person who was harassed felt offended, humiliated or intimidated.

⁴ It has been found that a work environment which has a gender ratio skewed in favour of men has a subsequent high incident rate of SH for women. In an environment that is skewed in favour of women or in female dominated occupations SH is not the predicted.
It is hypothesized that the contradictory evidence may be due to the unique working environment that nurses operate in. The nursing literature has not examined the effect of such an imbalance of gender on SH. As such, there is no benchmark or known starting point. However it is anticipated that job gender ratio in respect to nursing should account for patients, doctors and other colleagues in the immediate work areas, in addition to other nurses. This represents a typical working environment for a nurse. It is hypothesised that when the job gender ratio is skewed, taking into account the full gender ratio environment and not the nursing ratio environment, there is increased prevalence of SH.

Gutek and Morasch’s (1982) Sex Spillover Model was used as the basis of the measure for this variable. Respondents estimated the gender ratio of all persons in the immediate work environment (for instance, doctors, medical professionals, other nurses and patients).

**Management Style**

The measure for a respondent’s perception of their supervisor’s management style draws on the research of De Coster et al. (1999) concerning abuse. Some examples of items used to measure this construct include rude, abrupt, disinterested in addition to supportive, attentive, approachable. Items were listed against a two-item Likert scale (yes, no).

**Prior Socialization**

A forced-choice question ascertaining prior socialization was presented to respondent’s who indicated that they had experienced SH. Drawing on the research of Collins and Blodgett (1981) and Weber-Burdin and Rossi (1982) respondents who had been sexually harassed were asked the prior working period with the perpetrator. It should be acknowledged that Collins & Blodgett’s (1981) research identified socialization periods that are more long term (from 6 months onwards). However, additional short-term options (i.e. 1 week) were added due to the particular needs of the nursing profession. This was deemed necessary as a result of Grieco (1987) and Cogin’s (2002) research, which identified patients as the major source of SH for nurses.

**ANALYSIS TECHNIQUES**

The suitability of conducting factor analysis on each of the dependent variables (gender harassment, unwanted sexual attention and sexual coercion) was ascertained by examining the bivariate correlations. The existence of numerous medium and large (and significant) correlations provided strong evidence of the appropriateness of using factor analysis to assess the distinctiveness of the measures. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy also offered evidence of the relevance of the factor analysis for the data being used. The KMO for sexual coercion was 0.70; unwanted sexual attention was 0.82 and gender
harassment was 0.84. Principal components analysis (PCA) and Maximum Likelihood (ML) were chosen as the factor analysis method. Factor loadings applied in this particular case was where the loading was greater than 0.4. To determine the number of factors Eigenvalues greater than one were considered adequate. For each of the dependent variables the Eigenvalues were greater than 3. Varimax rotation was used which provided a clear separation of the factors.

The raw data was transferred from an SPSS file into a structural equation-modelling file using LISREL 8. Once the model was specified, its plausibility was tested based on data that comprised all observed model variables in order to determine goodness of fit. Initially, an acceptable fit was not obtained between the observed data and the proposed model. The goodness of fit index was 0.657; the root mean square residual was 0.980. As a result the model was modified by first evaluating the parameter estimates and residuals. Values greater than 0.1 were deemed a problem and were isolated. The model was modified by eliminating the dependent variable, ‘sexual coercion’ in line with Byrne’s (1994) suggestion that small samples of people having experienced such treatment in a work environment makes it difficult to empirically test via SEM. Considering that one of the items for sexual coercion included ‘forced attempts at sexual intercourse’ it is not surprising that small numbers of respondents had experienced such treatment at work. Indeed, only one (out of 538) respondents experienced this item. In fact, some of the items that measured sexual coercion could be regarded as sexual assault. As a result, it seemed appropriate to alter the model in this way. The output was examined for common anomalies (such as negative error variances and extremely large parameter estimates). No such anomalies were noted.

RESULTS

The resultant modified model yielded excellent fit statistics (see table 2), suggesting that the intercorrelations in the data were captured by the model. The fact that the model converged in only seven iterations adds further credence to an excellent fit.

<table>
<thead>
<tr>
<th>Index</th>
<th>Results – model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square X²</td>
<td>284.229 df = 163 p &lt; 0.001</td>
</tr>
<tr>
<td>Goodness of Fit Index (GFI)</td>
<td>0.948</td>
</tr>
<tr>
<td>Tucker-Lewis Index (TLI)</td>
<td>0.981</td>
</tr>
<tr>
<td>Comparative fit index (CFI)</td>
<td>0.981</td>
</tr>
<tr>
<td>Root mean squared residual</td>
<td>0.0391</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.0385</td>
</tr>
</tbody>
</table>

Table 2 SEM Measures and Results

Figure 3 displays the Path Figure with Standardised Estimates for the modified model. The error variances are all acceptable and below 0.50.
The distribution of the standardised residuals in the modified model was found to be symmetric and centred around –0.1 to +0.1. The average off diagonal value was 0.000, which reflects a good fit with the data. The largest off diagonal value was 0.185 and reflects a slight misfit associated with variables V2 and V13. Finally, a review of the frequency distribution reveals that most residual values (94.48%) fall between -0.10 and 0.10; 5.52% fall between 0.10 and 0.20.

**DISCUSSION**

The SEM results obtained and reported in table 2 suggest strong support for the proposed model on the organisational causes of SH. Figure 3 that depicts the structural relations, supports hypotheses $H_1, H_2, H_4, H_5, H_7, H_8$, revealing that:

- An unbalanced job gender ratio positively affects gender harassment ($H_1$) and unwanted sexual attention ($H_2$).
- A nurses’ perception that their supervisor exhibits negative management behaviours positively affects gender harassment ($H_4$) and unwanted sexual attention ($H_5$).
- No prior socialization positively affects gender harassment ($H_7$) and unwanted sexual attention ($H_8$).

Hypotheses statements ($H_3, H_6$, and $H_9$) were not supported due to insufficient respondents who experienced several of the items that measured sexual coercion.

This study provides empirical evidence to support Jackson and Newman (2004) and Vance et al. (2004) that an unbalanced job gender ratio positively correlates with SH. This is perhaps the most difficult issue for HRM in a hospital to address. The AIHW (2000) estimates that 11% of qualified nurses in Australia are male, therefore limiting the number of male nurses available to even up gender imbalances in the wards. While this research does not address the issue of attracting males to the profession; however some obvious barriers remain in place, for example the use of the term ‘mid-wife’. Where possible, human resource planners should use some of the more sophisticated rostering tools, for example RotaPlan or Smart Deployment, to account for gender differences within a work unit. Other options may be careful placement of patients in wards, job rotation, targeted selection and in some cases multiskilling. In addition, education for patients on what constitutes SH and the effects on individuals can assist in reducing incidents in contexts where the gender ratio is skewed. In line with the four-factor model, all of these strategies increase the strength of factors which a perpetrator needs to overcome before a SH incident occurs.

The SEM results provide evidence of the relevance of De Coster et al.’s (1999) study of abuse to SH. It was found that a nurse’s perception of his or her supervisor’s management style was related to incidence of SH. Specifically, those that perceived their supervisor to demonstrate negative traits were more likely to
experience SH than those who perceived their supervisor to demonstrate a positive management style. This result suggests that resources should be invested in developing the leadership styles of managers as daily interactions with supervisors were predictors of protection and/or perceived protection from SH. Following the underlying philosophy of the four-factor model, a focus on developing the managerial skills of supervisors (external inhibitors of SH) places an additional obstacle in the path of a potential SH perpetrator. Attention also needs to be invested in cultivating a supportive work group culture in order to increase the number of capable guardians and caretaker behaviours among peers.

The results confirm a higher prevalence of gender harassment and unwanted sexual attention between two people without a working history than those with an established working relationship of any length. The results imply that if two people know each other personally, one party is likely to interpret behaviours (which could be associated with gender harassment or unwanted sexual attention) as a joke or prank rather than an attempt to humiliate, embarrass or intimidate. This presents important information for managers in regard to developing cohesive work relationships among employees. The investment in building relationships and social networks appears worthwhile in preventing a SH incident.

The researchers confirmed that all of the participating hospitals in the study had a SH policy, a grievance handling mechanism and compulsory SH awareness training. Despite this, 60% of respondents in this study had experienced a SH incident in the 48 months prior to the research. This suggests that reactive measures (such as policy, grievance handling mechanism and SH awareness training) are by no means sufficient in managing this growing problem with wide ranging implications. Other methods for combating SH need to be considered such as management development as a means to develop caretaker behaviours. In addition, team building and social events that build rapport should be encouraged together with education for patients.

**LIMITATIONS**

A potential limitation inherent in this study includes the use of self-report data. First, we must consider whether the sole use of self-report data influences the findings in any way. Common method variance always remains a possible explanation for results obtained using self-report data.

A second potential limitation concerns the low response rate obtained in the sample. However since the sample is representative of the full nursing population and a large sample size has been obtained it is suggested that the findings are not a function of the response rate.
FURTHER RESEARCH

While empirical work on SH in nursing is sparse, it is reasonable to conclude that SH does exist. Some researchers may want to explore the prevalence and predictors of SH in health care compared to other fields. The proposed model could be empirically tested against data from other professions. In addition, several areas of research should receive immediate attention.

The HRM and psychological literature outlines the effects of SH on work performance. Such studies need to be extended to the nursing profession. In light of the nursing shortage in the Asia Pacific (Daly, Speedy & Jackson, 2004) such research may pinpoint areas for future attention. Further, such investigation may reveal that SH affects a nurse’s quality of care of patients. As mentioned a SH experience often results in lowered self-esteem. This is a cause for concern as it is difficult to imagine a person with these kinds of feelings enthusiastically and competently providing adequate health care in a medical setting, let alone performing critical life-saving tasks.

Four areas for future investigation are the effect of SH on recruitment, communication, increased anxiety and distraction or distancing from work commitments.

CONCLUSION

A focus upon outcomes of SH have led to a concentration on reactive measures to deal with it (such as complaint processes and reporting mechanisms) and the neglect of new initiatives for preventing SH occurring in the first place. Rather than just acknowledge the prevalence of SH in nursing this study has identified some of the core organisational facilitators of SH. The individual relationship of these facilitators to SH was empirically tested and their synergistic effects on one another have been linked. The existence of multiple relationships was measured and substantiated by testing the model using SEM.

It was found that a nurse’s negative perception of the management style of their supervisor to be an important variable in predicting SH. The contradictory evidence in the literature regarding job gender ratio was also explored. This study found that an unbalanced job gender ratio positively correlates with incidence of SH. Finally, it was concluded that a lack of socialization is associated with SH.

A focus on organisational variables that contribute to incidents of SH assists HRM professionals develop preventative measures for eradicating this growing phenomenon. Such a proactive approach is in line with calls for research on “strategic” HRM issues (Michelson & Kramar, 2003).
BIBLIOGRAPHY


