Abstract

Background: Within a context of global nurse shortages, replacing nurses is difficult; training and retention is a critical concern for healthcare management.

Purpose: Similarities and differences in the impact of supervisor-nurse relationships upon satisfaction with training and development, wellbeing and affective commitment were examined across 3 different nursing generations in Australia.

Method: Nine hundred nurses from 7 private hospitals (small, medium and large) across Australia responded. Path analysis, using an ordinary least squares approach, and multivariate analysis (MANOVA) were used to test the hypotheses.

Discussion: Three factors accounted for almost half the variance of Generation Xs’ and Baby Boomers’ affective commitment and a third of Generation Ys’. Practical implications for hospital management include differences in generations and the pivotal role of nurse supervisors.

Conclusions: For all three generations of nurses, supervisor-subordinate communication relationships are important because they contribute to satisfaction with training and development and wellbeing, but also significantly impact upon affective commitment.
INTRODUCTION

Replacing nurses has become more difficult and their training and retention has become a critical concern for healthcare management. Replacement costs are high and turnover negatively affects patient outcomes as well as morale.¹ There are acknowledged shortages of nurses in many countries, with other countries such as China and Philippines becoming ‘donor’ countries.² Accordingly, healthcare management leadership needs to ensure that the retention of qualified and valued nurses is a priority, while training and retraining is foundational to achieving effective organisational and patient outcomes. Previous research identified the crucial role of nurses’ wellbeing in commitment, and has examined the important role of nurse-supervisor relationships to wellbeing and commitment.³⁴ Further, there is an identified link between the supervisor-nurse relationship and nurses’ satisfaction with training and development and affective commitment.⁵⁶ However, the flattening of hierarchical management structures in healthcare has been associated with heavier scopes of responsibility and greater numbers of direct reports for managers and supervisors which may constrain the ability of supervisors to support staff. Importantly, commitment to the organisation - affective commitment - is a predictor of turnover.⁷ So, the links between the supervisor’s role, wellbeing, training and commitment are important to understand, yet they remain a void in the literature. Moreover, there are currently four generations of nurses at work and little has been examined about influences on their organisational commitment. While there is previous research about the different generations of nurses at work, there is no consensus about whether each generation shares the same values and beliefs or behaves in similar ways at work.⁸⁹

Information about what could entice the different generations of nurses to remain in the workplace is limited, and therefore this study will add knowledge to assist those who manage healthcare to develop targeted retention strategies. This research has important consequences for healthcare researchers and managers because, as is typical of numerous Organisation for Economic Co-Operation and Development (OECD) countries such as the United States of America, Canada and the United Kingdom (UK), Australia too has an aging population. Nurses aged 45 and over currently comprise over 60 per cent of the Australia nursing workforce. By 2025, the growth in the aged population has been projected to result in an increased demand for hospital bed days of about 40%, at the same time as the population aged less than 30 years (when nursing students typically commence study) is only projected to grow by 8%.¹⁰ The consequences for the nursing workforce means that healthcare
management needs to better understand the needs and preferences of the different nurse generations to better retain them. This article investigates a specific component of the quality of management: the supervisor-nurse relationship, and specifically supervisor communication, in relation to important nurse outcomes. Further, it examines this relationship for its impact upon the different generations of nurses.

**BACKGROUND**

**Generational cohorts**

In today’s workforce, there are four major and distinct generations: ‘Mature’, ‘Baby Boomer’, ‘Generation X’ and ‘Generation Y’. This study focuses on the three largest groups in Australia’s nursing workforce and adopts the dates as Baby Boomers (BB, born between 1946 and 1965), Generation X (Gen-X, born between 1966 and 1980) and Generation Y (Gen Y, born 1980-2000).

The generational cohort literature suggests that each generation has different values and beliefs from the others, and therefore their behaviours and practices may differ because of their generational-specific experiences. For example, BBs tend to have a strong work ethic, and value promotion, position and personal growth, whereas Gen Xs are better educated, demand a better work-life balance, place lower value on work itself, are unwilling to sacrifice their personal lives for a career and are less hierarchical. Gen Ys are the most computer-literate and technology-ready, are more likely to pursue training and development opportunities and are more prepared to move from one organisation to take advantage of those opportunities. They are more achievement- and career-oriented and more optimistic in their outlook about life. Notably, Gen Ys dislike hierarchy and are therefore more likely to experience difficulty relating to superiors and less likely to accept the leadership of the nurse supervisor, particularly when that supervisor is older. Further, significant differences in leadership characteristics between generations of business students were identified.

However, some argue that there is insufficient empirical evidence to validate generational differences, suggesting that more research is required to either confirm or refute the generational cohort lens perspective. For example, similarities in work involvement, job involvement, work group attachment and affective commitment were revealed for BB and GenX IT professionals. In one study, BB nurses were found to have lower levels of turnover and higher levels of affective commitment than other generations. In contrast, in an Australian organisation, other research found no significant differences in levels of trust and affective
commitment between Gen X and BB, but found that Gen X displayed lower continuance commitment and exhibited higher intentions to turnover. Similarly, Stuenkel et al. found no statistically significant differences between BB and Gen X nurses in the USA in terms of peer cohesion, work pressure, clarity, control and physical comfort, although Gen X nurses did report a higher level of job involvement compared to BBs. In summary, there is uncertainty as to the credibility of differences between nurses being based upon their generations. Based on this literature, the following hypothesis is proposed:

H1: Compared with Generations X and Y nurses, BB nurses will have higher levels of satisfaction with supervisors-nurse communication relationships, lower levels of satisfaction with training and development, higher perceptions of wellbeing and higher levels of commitment to their hospitals.

Supervisor-Subordinate Communication Relationship

The supervisor-subordinate communication relationship comprises four communication constructs capturing the frequency, mode, content and flow of communication. The theory about frequency of communication is that the quantity of interactions between supervisors and subordinates determines the quality of the relationship that develops. The mode of communication concerns the development of an effective supervisor-subordinate relationship, which depends on whether formal or informal modes of communication are used. Formal communication processes refer to hierarchical means of communications such as organisational documents and manuals, or addresses by the CEO or manager. In contrast, informal communications that involve a two-way communication process, such as conversations in the office or informal meetings that permit two-way conversations, more quickly builds effective workplace relationships between supervisors and subordinates. The third communication construct refers to the direct or indirect nature of communication. Indirect communication strategies refer to supervisor practices that empower employees by sharing responsibility and decision-making and involve open communication channels so that employees’ ideas can be heard and discussed. Direct means of communication involve supervisors using their hierarchical power to ensure a command style of communication, which are likely to suppress the development of an effective supervisor-subordinate relationship. The fourth communication construct is the quality of the communication flow embedded within the supervisor-subordinate relationship. Relationships between supervisors (Nurse Unit Managers or NUMs) and subordinates (nurses) build when there are embedded bi-communication mechanisms, so that employees are able to ask questions, make suggestions and generally interact in the workplace.
Based on this literature, using all four constructs, quality relationships can be expected to build when the workplace is characterised by frequent and informal communication, using indirect means that facilitate bi-directional communication between supervisors and their subordinates. Moreover, the generational cohort literature suggests that Gens X and Y prefer supervisor-subordinate relationships characterised by that sort of communication, creating an empowering non-hierarchical workplace.\(^8,16\) If this is a second hypothesis then separate it like you did the previous one OR just change the previous one to an expectation statement as you have here. If you do that then you can move the actual hypotheses to the findings section. Therefore, it is expected that there will be a difference between BBs compared with Gens X and Y in satisfaction with their supervisor-subordinate relationships.

**Satisfaction with Training and Development**

Workplaces are changing in terms of the ways things are done and therefore most new workplaces need to continually update their employees’ knowledge and skills to add value to employees and achieve greater flexibility and creativity. Whereas developmental training is associated more with a broad range of skills including improved critical thinking and decision-making, effective team performance and values/mindset changing, training is defined as a planned activity where job-related competencies are learnt by employees.\(^22\)

Training and development are important for developing organisational human capital and because of the positive impact upon affective commitment.\(^6,23\) For nurses, Curtin identified that training and development is an important ingredient in ensuring their longer term career prospects, while McBride argued that lifelong learning is necessary for professional development.\(^24\) However, Eisner argued that Gen Ys are more concerned with training and development opportunities than BBs.\(^12\) Consequently, Gen Ys are less committed to staying with one organisation compared with BBs.\(^12\) Previous research identified the importance of supervisor support in affecting satisfaction with training and development opportunities, and that the supervisor-subordinate relationship is less important to Gen Ys compared with BBs.\(^8,25,26\) However, it is unclear whether there is a difference in the impact of the quality of the supervisor-subordinate relationship upon BB, Gen X and Gen Ys’ satisfaction with training and development.

**Employees’ perceptions of wellbeing**
Employees’ perceptions of wellbeing significantly affect their outcomes, however, the term has multiple definitions, conceptualisations and measurements. Three categories of conceptualisations of wellbeing are psychological wellbeing, physical wellbeing and social wellbeing. While there are numerous conceptualisations of psychological wellbeing, previous conceptualisations failed to capture all components. According to Grant et al., wellbeing comprises two components: the hedonic section (employees’ perceptions of pleasure invoking either negative or positive thoughts or feelings, usually measured by employees’ levels of job satisfaction), and the eudaimonic section (employees’ perceptions of whether they have reached their potential, measured by employees’ feelings of fulfilment in reaching their goals). In addition, previous measures have been criticised because they focused on job characteristics, but largely ignored the impact of job situation itself; more occupation-specific measurements are called for. However, minimal research has measured similarities and differences of factors affecting wellbeing across generational cohorts.

Affective commitment

Allen and Meyer defined affective commitment as the emotional attachment to, and identification with, an organisation - making employees loyal and attached to the organisation. This is an important factor because Hartmann and Bambacas found a significant link between commitment and intention to quit for casual academic staff in an Australian tertiary institution, supporting earlier research. Previous research also suggests that communication practices and the quality of the supervisor-subordinate relationship affect commitment, as do organisational policies (about pay and appraisal methods), management practices and poor levels of workplace relationships. While there is minimal previous research linking wellbeing and affective commitment, there is research that links wellbeing with job satisfaction (and job satisfaction is significantly related to affective commitment) and supervisor-subordinate relationships with wellbeing. However, there has been limited research examining the differences across generational cohorts, and hence the following hypothesis is proposed:

**H2:** For all three generational cohorts, there is a positive relationship between supervisor-nurse communication relationship, nurses’ satisfaction with training and development, perceptions of wellbeing and levels of affective commitment.

**METHODS**

*Design, setting sample*
In Australia, 40% of hospital beds are provided by the private sector and non-profit organisations and 60% is provided by the public sector. However, the situation is far more complex than it first appears because of public-private partnerships. This means that public patients are contracted to the private system and vice versa. While there are some differences in the values and subsequent management practices of non-public hospitals, in practice there is substantial similarity in the type of clinical work undertaken and the patient case-mix across both public and private hospitals. To capture nurses from different sized hospitals, the sample includes nurses from urban and regional hospitals, big (metropolitan), medium and smaller hospitals, across four states of Australia. In Australia, a large hospital is generally described as one having more than 500 beds, a medium hospital is described as one having between 300 and 500 beds and a small hospital is described as one with less than 300 beds. All of the hospitals handled acute care cases and the two large hospitals were teaching hospitals while the others were not. Sizes of the hospitals ranged from 160 to 760 beds, their locations were spread across New South Wales, Western Australia, Queensland and Victoria including 3 metropolitan hospitals and 6 rural hospitals.

This study used a survey-based, self-report strategy to gather data. Surveys, including the survey rationale, were sent to seven private hospitals by internal mail, supported by a cover note explaining the research, plus anonymity was confirmed and informed consent was gained from respondents. Ethics committees at both university and hospital levels approved the study. Respondents sealed their completed survey in an envelope which was returned to the researchers. Completed surveys were received from 900 of the 4500 sent out, a response rate of 20%. The majority of respondents was female (96.3%), Baby Boomers (54%; Gen Xs were 37.8%), registered nurses (57.3%), and with postgraduate qualifications (51.8%) (see Table 1). We omitted the “Matures” generation (aged 62+ years) from the analysis because few are working nurses and the sample size was too small.

Measurement

The questionnaire consisted of 4 sections taken from 4 established surveys, plus demographic information (see Table 2 for details). All item statements were rated using a 6-point Likert-type scale, with 1 = strongly disagree, ranging to 6 = strongly agree (see Table 2 for details). Satisfaction with supervisor-subordinate communication relationship (Chronbach’s alpha = .803) is defined as employees’ level of satisfaction with the communication between themselves and their supervisor and was it was operationalised by developing one combined measure
using 10 items from the subscales measuring employees’ satisfaction with the frequency of communication (number of contacts), the mode of communication (formal means such as manuals or informal means such as conversations in the hallway), the direction of communication (direct means such as hierarchical autocratic communication or indirect communication which empowers employees) and the flow of communication (which is either two-way with feedback loops or mostly one-way from supervisor to employee). Training and development (Chronbach’s alpha = .85), which asked about nurses’ satisfaction with training and options for career and skill development was measured using 6 items taken from Meyer and Smith’s validated test bank. Perception of wellbeing (Chronbach’s alpha = .88) was developed to examine the psychological wellbeing of nurses and is defined as employees’ attitudes and feelings about the work context. It is operationalised using a four-item validated test bank, developed to address criticisms raised by van der Doef and Maes that more occupation-specific measurements are needed. This measure of psychological wellbeing is specifically suited to nursing and is operationalised as a function of the hedonic part (focusing on nurses’ perceptions of pleasure invoking either negative or positive thoughts or feelings) in addition to the eudaimonic part (focusing on nurses’ perceptions of fulfilment in achieving their goals). Affective commitment, (Chronbach’s alpha = .87) is defined as an employee’s emotional commitment to an organisation and it was measured using 7 items from Allen and Meyer’s commitment instrument. In this study, supervisor-subordinate communication, training and development and wellbeing were independent variables and affective commitment was the dependent variable.

[Insert Table 2 here]

Data Analysis

Path analysis was used to test the impact of supervisor-nurse communication relationships on 1), nurses’ satisfaction with training and development and 2) nurses’ perceptions of wellbeing, and 3) their levels of affective commitment. Specifically, path analysis using an ordinary least square (OLS) approach was used to test the second hypothesis. OLS provides an explanation of variance (which is the extent to which one variable can account for another variable) as well as the overall ‘goodness of fit’ of the proposed model (which is the extent to which the independent variables in total account for the dependent variable). The advantage of path analysis is that it permits more than one path to predict the dependent variable (i.e. affective commitment) and therefore it includes the indirect impact of the other variables into the bigger equation (supervisor-nurse communication relationships, training and development as well as wellbeing).
Additionally, a MANOVA was used to examine the impact of generational cohort on four dependent variables (supervisor-nurse communication relationships, training and development, wellbeing and affective commitment). If the multivariate F value is significant, then it means that there is a significant difference in the means for supervisor-nurse communication relationships, training and development, wellbeing and affective commitment for the Gen Y, Gen X and BBs.

RESULTS

Correlation coefficients are presented in Table 3 to show the strength of the linear relationships between the variables. The Cronbach Alpha scores measuring reliability for the 4 scales ranged from 0.803 to 0.88.

[Insert Table 3 here]

H1: To test the first hypothesis (Compared with Generations X and Y nurses, BB nurses will have higher levels of satisfaction with supervisor-nurse communication relationships, lower levels of satisfaction with training and development, higher perceptions of wellbeing and higher levels of commitment to their hospitals), a MANOVA was used to examine the impact of generational cohort on four dependent variables (supervisor-nurse communication relationships, training and development, wellbeing and affective commitment). The findings evident in Table 4 indicate that there are significant differences in the means for wellbeing and affective commitment. On the other hand, there was no significant difference in the means for supervisor-nurse communication relationships or training and development for Gen Y, Gen X and BBs. Table 5 indicates the differences in the mean for Gen Y, Gen X and BB nurses’ perceptions of supervisor-nurse communication relationships, training and development, psychological wellbeing and affective commitment. H1 is partially accepted because BBs do have higher levels of satisfaction with communication with supervisors (although not significantly higher) as well as higher perceptions of wellbeing and higher levels of commitment to their hospitals. Further, BBs had higher levels of satisfaction with training and development compared with Gen X and Gen Y, although, it was not a significant difference. Additionally, each cohort reported being only ‘slightly’ satisfied with their supervisor-nurse communication relationships and satisfaction with training and development, plus their levels of affective commitment were reported as even lower. However, Gen Y, Gen X and BBs were on average, more satisfied with their perception of wellbeing, yet these were also reported as only ‘slightly’ satisfied (see Table 5).
**H2**: To test the second hypothesis (For all three generational cohorts, there is a positive relationship between supervisor-nurse communication relationship, nurses’ satisfaction with training and development, perceptions of wellbeing and levels of affective commitment) path analysis using ordinary least square (OLS) approach was used and the results support the hypothesis proposed. This involved testing for a statistically significant linear relationship between each of the variables and these are evident in Figure 1 as Pearson Correlation coefficients. Additionally, path analysis involves the calculating of the “Goodness of Fit” ($r^2$) value. Figure 1 shows the overall goodness of fit of the model as .414, suggesting that the independent variables (supervisor-nurse communication relationship, nurses’ satisfaction with training and development, perceptions of wellbeing) in combination explained approximately 41.4% of the variance of nurses’ levels of affective commitment ($F = 215.599, p<.001, \beta$ for SSCR=.174, $p<.001$; $\beta$ for T & D=.279, $p<.001$; $\beta$ for WB=.364, $p<.001$). The $\beta$ scores are standardized regression coefficients that capture the change in terms of the standard deviation in affective commitment resulting from a change in one standard deviation in the independent variables (supervisor-nurse communication relationship, nurses’ satisfaction with training and development, perceptions of wellbeing).

(Insert Figure 1 here)

**DISCUSSION**

This paper had two foci. The first was to examine the impact of supervisor-nurse communication relationships, nurses’ satisfaction with training and development and perceptions of wellbeing on their levels of affective commitment. The second was to examine similarities and differences in impacts across different nurse generations. Some of the findings from this study support previous research, while others do not, particularly in relation to generational cohorts. Remaining findings present new information for the discipline of healthcare management.

First, using the OLS procedure, the 'goodness of fit' identified that these three factors (supervisor-subordinate communication relationship, training and development and wellbeing) accounted for over forty percent of the variance of all nurses’ level of affective commitment. That is, these three variables are important in determining nurses’ commitment to a hospital and since affective commitment is a predictor of turnover, such information is important for healthcare managers to consider.
Second, this paper adds new information about the similarities and differences across three generations. There was no significant difference in the levels of satisfaction with the supervisor-nurse relationship and training and development across generational cohorts; however, all three cohorts were either slightly dissatisfied or barely slightly satisfied with training and development which must be a concern for management. On the other hand, there were statistically significant differences in perceptions of wellbeing and affective commitment across the generational cohorts with BBs having higher perceptions of wellbeing and affective commitment. One interpretation of this outcome is that BBs experienced a significantly different perception of the same workplace processes, compared with Gens X and Y. Nevertheless, this new information adds weight to the validity of a generational cohort explanation.

In terms of individual variables, the findings identify important issues compromising nurses’ commitment to their hospital. For example, in terms of the supervisor-nurse communication relationship, the findings suggest that across the three generations, nurses were not even ‘slightly satisfied’ with the quality of their communication relationships. Based on the communication management literature, such findings suggest a workplace lacking in the frequent informal conversations that are more likely to build social capital in the workplace.\textsuperscript{20,21} The generational cohort findings support previous research that Gens X and Y preferred a less hierarchal work environment compared with BBs (suggesting a preference for informal communication processes).\textsuperscript{8,10} However, the findings challenge past research that suggested that BBs were comfortable with hierarchical means and modes of communication. Instead, these findings indicate that BBs were as dissatisfied with their supervisor-nurse communication relationship as were Gen Xs and Gen Ys. Additionally, the low levels of satisfaction for training and development suggest that no generational cohort were satisfied with management’s provision of training and development and previous research by Meyer and Smith plus McGunnigle and Jameson had already identified the relationship between training and development, and affective commitment.\textsuperscript{52,23} This study confirms that relationship for nurses. Further, the findings do not identify a difference in the importance of training and development across the generational cohorts as had previously been argued by Eisner and therefore more research across generational cohorts in different countries is required to clarify when there are generational cohort differences in training and development attitudes.\textsuperscript{12}

These findings build on previous research about nurses by providing new knowledge about how three different nurse generations’ satisfaction with supervisor-subordinate communication relationships, training and development, perceptions of wellbeing impacts on organisational commitment. Because past research has already
established a positive relationship between the quality of supervisor-subordinate communication relationships and organisational effectiveness, it is argued that the present conditions are not ideal for optimising organisational effectiveness in these hospitals, nor is it ideal for retaining nurses. Nurse retention is a major issue for the many countries who, like Australia, face shortages of nurses. More alarmingly, Australia has one of the lowest retention rates of older workers. Hence, without significant changes in supervisor-nurse communication relationships, as well as the provision of training and development, nurses BBs will remain only slightly committed to their hospitals, while Gens X and Y will remain slightly uncommitted. Since nurses who report dissatisfaction with management policies and practices have a 65% higher probability of intending to quit than those reporting to be satisfied and affective commitment is a predictor of turnover, these conditions appear less than optimum for retaining any generation of nurses.

Limitations

This study has a number of limitations. The main limitation is the use of self-report surveys causing common methods bias. However, self-reporting methods are legitimate for gathering data about employees’ perceptions, as long as the instrument reflects an extensive literature review and pattern-matching is used to support interpretations of the data and triangulation is used to support research findings. Another limitation is that the demographic variables were not measured in this study and could impact the results. Additionally, we did not use type or size of hospital in our analysis and this could have an effect on the results. Further research is necessary to examine potential effects absent from in this study.

CONCLUSION

Using a generational cohorts lens provided an insightful framework for examining similarities and differences in the relationship between supervisor-subordinate communication relationships, nurses’ satisfaction with training and development, perceptions of wellbeing and in turn, affective commitment. The findings suggest that even when there are no significant differences in satisfaction levels (with supervisor-nurse communication relationships or training and development) across the nurses, the impact of other factors (perceptions of wellbeing or affective commitment) was significantly different for BBs compared with Gens X and Y. One explanation for these findings is that nurses’ generational cohort provides a rational account of the differences in their attitudes and perceptions. This explanation suggests the need for generation-tailored supervision strategies to increase retention of these valued employees. Moreover, this study found that present supervision practices are not ideal
for promoting effective supervisor-nurse relationships, which appear to be crucial to organisational commitment for all nurse generations.
References

37. Buchanan J, Considine G. "Stop telling us to cope" NSW nurses explain why they are leaving the profession. Report for the NSW Nurses Association Sydney: Univ of Sydney; 2002.


### Table 1: Demographics of the sample (N = 900)

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<tr>
<th>GENDER</th>
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<td>Male</td>
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<td>30-45 (Gen X)</td>
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<td>37.8%</td>
</tr>
<tr>
<td>&gt;45 (BB)</td>
<td>486</td>
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<td>54%</td>
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<tr>
<td>Total</td>
<td>900</td>
<td></td>
<td>100%</td>
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<th>Gen Y</th>
<th>Gen X</th>
<th>BB</th>
<th>TOTAL</th>
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<td>Post Graduate</td>
<td>29 (39.19%)</td>
<td>147 (43.2%)</td>
<td>115 (23.67%)</td>
<td>291 (32.3%)</td>
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<tr>
<td>Undergraduate</td>
<td>35 (47.30%)</td>
<td>82 (24.11%)</td>
<td>43 (8.85%)</td>
<td>160 (17.8%)</td>
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<td>Hospital Certif. or equivalent</td>
<td>8 (10.81%)</td>
<td>84 (24.7%)</td>
<td>165 (33.95%)</td>
<td>257 (28.6%)</td>
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<tr>
<td>Other/Technical college/high school</td>
<td>2 (2.70%)</td>
<td>27 (7.9&amp;)</td>
<td>163 (33.5%)</td>
<td>192 (21.33%)</td>
</tr>
<tr>
<td>Total</td>
<td>74 (100%)</td>
<td>340 (100%)</td>
<td>486 (100%)</td>
<td>900 (100%)</td>
</tr>
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</table>

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<tr>
<th>POSITION</th>
<th>Gen Y</th>
<th>Gen X</th>
<th>BB</th>
<th>TOTAL</th>
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<tr>
<td>NUM or higher</td>
<td>9 (12.16%)</td>
<td>53 (15.59%)</td>
<td>105 (21.61%)</td>
<td>167 (18.55%)</td>
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<tr>
<td>Registered nurses</td>
<td>54 (72.97%)</td>
<td>207 (60.88%)</td>
<td>255 (52.47%)</td>
<td>516 (57.33%)</td>
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<tr>
<td>Endorsed Nurses</td>
<td>7 (9.46%)</td>
<td>38 (11.18%)</td>
<td>58 (11.93%)</td>
<td>103 (11.44%)</td>
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<td>Assistant in Nursing</td>
<td>0 (0%)</td>
<td>1 (0.29%)</td>
<td>3 (0.62%)</td>
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<td>Missing</td>
<td>4 (5.41%)</td>
<td>41 (12.06%)</td>
<td>65 (13.37%)</td>
<td>110 (12.22%)</td>
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<tr>
<td>Total</td>
<td>74 (100%)</td>
<td>340 (100%)</td>
<td>486 (100%)</td>
<td>900 (100%)</td>
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### Table 2: Measures Used  (Rated on a scale of 1= strongly disagree to 6 = strongly agree)

**Supervisor-Nurse Communication Relationship (Jolke & Duhan, 2001)**

**Communication Frequency**
- My NUM (spell out) often communicates with me about my job
- I often discuss my work with my NUM

**Communication Mode**
- Most of the communications I have with my NUM are through memos, work manuals, telephone or other written directions (reverse score)
- I receive the majority of information about my job through formal meetings with my NUM and is rarely spontaneous (reverse score)

**Communication Direction**
Most of the communication I have with my manager is done face-to-face. Communication flows both from my NUM to me as well as from me to my NUM. My NUM provides relevant information to me about patients. My NUM encourages open lines of communication with me.

**Communication Content**
My NUM communicates with me about my work so that we can agree upon the best actions for me to take. My NUM often describes very specific actions that I should undertake (reverse score).

**Training and Development (Meyer & Smith, 2000)**
The hospital places the right amount of emphasis or importance on training. There are lots of training opportunities provided for me in this organization. My training was useful or helpful to me. I am satisfied with the training I have received so far. I think my training has helped or will help my career in nursing. Training is necessary for advancement within nursing.

**Wellbeing (Brunetto, Far-Wharton & Shacklock, in print)**

**Eudaimonic** part of well-being: Overall, I think being a nurse fulfils an important purpose in my work life.

**Eudaimonic** part of well-being: Overall, I get enough time in nursing to reflect on what I do at work.

**Hedonic** part of well-being: Overall I think I am reasonably happy with my work life.

**Hedonic** part of well-being: Overall, most days I feel a sense of accomplishment in what I do in nursing.

**Affective Commitment (Allen & Meyer, 1990)** (commitment to the hospital)
I would be very happy to spend the rest of my career with this hospital. I enjoy discussing my organisation with people outside. This hospital has a great deal of personal meaning for me. I do not feel ‘emotionally attached’ to this hospital (reverse score). I feel a strong sense of belonging to this hospital. I do not feel like ‘part of the family’ in this hospital. I feel strong ties with this hospital.

**Location**
Where are you located (a) Queensland, (b) NSW (c) Victoria (d) Western Australia?

**Generational Cohort**
1. What is your age? .................... years

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**Table 3: The means, standard deviations, Cronbach Alpha coefficients and correlations**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean*</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>1. Communication (combined)</td>
<td>3.948</td>
<td>1.03</td>
<td>1</td>
<td></td>
<td></td>
<td>(.803)</td>
</tr>
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<td>2. Training</td>
<td>4.534</td>
<td>1.298</td>
<td>.48**</td>
<td>1</td>
<td></td>
<td>(.85)</td>
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<td>3. Wellbeing</td>
<td>4.389</td>
<td>.918</td>
<td>.23**</td>
<td>.32**</td>
<td>1</td>
<td>(.88)</td>
</tr>
<tr>
<td>4. Affective Commit</td>
<td>4.056</td>
<td>1.237</td>
<td>.14**</td>
<td>.36**</td>
<td>.34**</td>
<td>1 (.87)</td>
</tr>
</tbody>
</table>

* N = 900. Numbers in parentheses on the diagonal are the Cronbach’s alpha coefficients of the composite scales.
* Rated on a scale of 1 = strongly disagree to 6 = strongly agree
** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

---

**Table 4: Test of Between-Subjects Effects**

---
<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>Combcom</td>
<td>.346</td>
<td>.708</td>
</tr>
<tr>
<td></td>
<td>TrainDev</td>
<td>.885</td>
<td>.413</td>
</tr>
<tr>
<td></td>
<td>Wellbeing</td>
<td>15.166</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>AffCommit</td>
<td>25.778</td>
<td>.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>Combcom</td>
<td>7652.47</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>TrainDev</td>
<td>5235.49</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Wellbeing</td>
<td>17866.18</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>AffCommit</td>
<td>4994.90</td>
<td>.000</td>
</tr>
<tr>
<td>Impact of generat cohort</td>
<td>Combcom</td>
<td>.346</td>
<td>.708</td>
</tr>
<tr>
<td></td>
<td>TrainDev</td>
<td>.885</td>
<td>.413</td>
</tr>
<tr>
<td></td>
<td>Wellbeing</td>
<td>15.166</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>AffCommit</td>
<td>25.778</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 5: Estimated marginal means : Age

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Age</th>
<th>Mean*</th>
<th>Std Error</th>
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</thead>
<tbody>
<tr>
<td>CombComm</td>
<td>GenY</td>
<td>4.064</td>
<td>.120</td>
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<tr>
<td></td>
<td>GenX</td>
<td>4.090</td>
<td>.056</td>
</tr>
<tr>
<td></td>
<td>BB</td>
<td>4.141</td>
<td>.047</td>
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<tr>
<td>TrainDev</td>
<td>GenY</td>
<td>4.009</td>
<td>.143</td>
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<tr>
<td></td>
<td>GenX</td>
<td>3.978</td>
<td>.067</td>
</tr>
<tr>
<td></td>
<td>BB</td>
<td>4.092</td>
<td>.056</td>
</tr>
<tr>
<td>Wellbeing</td>
<td>GenY</td>
<td>4.500</td>
<td>.089</td>
</tr>
<tr>
<td></td>
<td>GenX</td>
<td>4.583</td>
<td>.042</td>
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<tr>
<td></td>
<td>BB</td>
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<td>.035</td>
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<tr>
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<td>GenY</td>
<td>3.446</td>
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<tr>
<td></td>
<td>GenX</td>
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<td>.065</td>
</tr>
<tr>
<td></td>
<td>BB</td>
<td>4.305</td>
<td>.055</td>
</tr>
</tbody>
</table>

* Means were rated on a scale of 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree
Figure 1: Supervisor-nurse communication relationship, satisfaction with training and development, perceptions of wellbeing and affective commitment for Generation Y, Generation X and BBoomer nurses.

Overall ($r^2 = 41.4\%$)