

## CHAPTER 6

### DISCUSSION OF FINDINGS

*Thomas was given a day off, time off to recover. It is up to him to make sure a police report had been filed. Who should he call and where could he find the numbers? The pain and insult of the assault increased when Thomas arrived at the police station to sign the complaint and the police Sergeant said, "We have no record of the assault. Are you sure you have given me the right details?" Thomas was speechless. How could this mistake happen? How did they not have the report?*

#### **Introduction**

To effectively care for forensic patients, specialty knowledge is required including educational topics such as forensic sciences, healthcare and law (Lynch, 2006). Due to the complexity of issues involved in many forensic cases best practice outcomes are achieved through a multidisciplinary and collaborative approach (Hammer, Moynthan, and Pagliaro, 2006). The purpose of this study, therefore, was to develop and evaluate the effectiveness of a forensic educational package on ED nurses' perceptions, knowledge and care of forensic patients.

Overall, the study findings suggest that the forensic educational package did alter the perceptions, knowledge and practices of ED nurse participants. Participants' acknowledged that they had a greater appreciation in regards to what their roles and responsibilities are when caring for forensic patients. Additionally, participants' knowledge about forensic patient issues increased by 23% after attending the three intervention workshops whilst changes in nursing practices were noted in regards to the way participants documented assessment findings and utilised forensic evidence tools. Therefore, after reviewing the available literature and considering the study findings, one could conclude that the future implementation of forensic education to ED nurses will have a positive impact on forensic patient care in Western Australia.

It is common for nurses to change jobs and move between departments within a single hospital setting. Literature indicates that nursing turnover rates and nurses moving between hospital departments is a common occurrence (Simmons, 2000; Contino, 2002; O'Brien-Pallas, Duffield, and Hayes, 2006). In this study, the researcher noted that one year after the completion of the forensic workshops, only

50% of the original HospC participants were still working in the ED. The reasons for the large movement in nurses at HospC included; some participants had changed departments within the hospital, some had moved interstate, some were on maternity leave, and others had sought employment at other metropolitan hospitals.

Therefore, if regular forensic workshops were offered to all hospital nurses there is a greater chance that care of forensic patients would improve regardless of the type of hospital ward in which the patient received care. Many forensic patients leave hospital EDs and are admitted to medical or surgical wards whilst others get transferred to other medical facilities or receive follow-up care in the community. If forensic nursing education infiltrated all nursing environments as a result of nurses moving within and amongst healthcare settings, it could be argued that more forensic patient issues would be recognised and treated holistically.

The content of this chapter will include a comparison of this study's findings with other relevant published literature. In addition, a discussion will be included that describes an educational model developed from this study which focuses on the enhancement of clinical forensic practice for all nurses. Furthermore, the new educational model will be compared to Lynch's (2006) Forensic Nursing Integrated Practice Model. Finally, this chapter will conclude with a discussion about the limitations of the study findings.

### **Comparison of Findings with other Literature**

No published forensic nursing research studies could be located that described the development and evaluation of clinical-based educational material for ED nurses. An extensive search of various online databases such as Ebscohost, PsychINFO, CINAHL, Joanna Briggs Institute, The Australian Resource Centre for Healthcare Innovations, and ProQuest were explored in combination with a variety of forensic, nursing, education, theoretical, and research design terms. However, no research was located that dealt specifically with how best to address the clinical forensic educational needs of ED nurses. There were a variety of published forensic related research studies that will be discussed below.

### ***Forensic related research***

There is a variety of forensic literature that has been published in the past by forensic pathologists, laboratory scientists, as well as Masters and PhD researchers.

Frequently, such literature involves topics such as how to collect and interpret different types of evidence (Freeman and Nelson, 2004; Segelnick and Goldstein, 2005; Allen and Ientile, 2006; Neville, 2006), summaries of forensic examination findings (Haneline and Croft, 2003; Kieser, 2006; Rohn and Frade, 2006), discussion of specific/notorious forensic cases (Freeman, 2002; Kemm-Highton, 2006; Ramsland, 2006), and investigations into offender profiles (Slavkin, 2004; Vaisman-Tzachor, 2006; Schwartz, 2007; Cauley, 2007). Furthermore, much of the published forensic nursing literature was found to investigate such topics as; forensic patient experiences and characteristics (Johnston, 2005; Hatlevig, 2006; Koehler, Shakir, and Omalu, 2006; Amar, 2007); mental health care (Riordan, Wix, and Humphreys, 2005; Shelton and Lyon-Jenkins, 2006); and the effectiveness of forensic nursing sexual assault service programs (Logan, Cole, and Capillo, 2006; Plichta, Clements, and Houseman, 2007).

For example, a Master's research study by Rooms (2004) titled *Forensic Nursing Practice in United States Trauma Centers* described the practice of forensic nurses in American College of Surgeon designated trauma centers in the USA. In this study, 173 trauma center coordinators were sent a survey that focused on how patients with legal needs were identified, the type of evidence that was collected as well as how the forensic nurses provided their services and interacted with other community resources. Rooms found that; 91% of respondents had specific criteria to identify victims of abuse, 94% confirmed that evidence collection occurred; and the primary forensic nursing role was that of the Sexual Assault Nurse Examiner (SANE). Overall, this study demonstrates the common trends associated with current forensic nursing research.

There was one study located that investigated the effectiveness of a nursing intervention on individuals who fell into the domestic violence forensic patient category (Parker, McFarlane, Soeken, Silva, and Reel, 1999). Parker et al., found that up until 1999, only one other study (Sullivan, Campbell, Angelique, Eby, and Davidson, 1994) could be identified which investigated the testing of an intervention

for this particular population. Such findings further support why the researcher experienced such difficulty in findings previous published literature similar to aspects of this study.

Therefore, it was not surprising to find that not one study could be found that incorporated all of the educational, practical and theoretical perspectives applied in this study design. There were, however, many healthcare based research studies that utilised the pre-test, post-test design and multiple teaching methods (Wang, Fennie, He, Burgess, and Willians, 2003; Wood, Duffy, Morris, and Carnes, 2002; Rezaei, Seydi, and Alizadeh, 2004; Kerrigan et al., 2006; Chan and Ko, 2006; Hughes, Parker, Payne, Ingleton, and Noble, 2006). As a result, the comparisons of findings between this study and other published work required the researcher to utilise studies that contained either similar research designs (a pre-test, post-test design and multiple teaching strategies) or studies that utilised the same theoretical models (Knowles adult learning principles and/or SCT) as utilised in this study. The discussions to follow have been organised under two headings; research design strategies and theoretical perspectives.

### ***Research design strategies***

The main goal of this study was to develop a practice based forensic educational package that would be comprehensive and effective for ED nurses. To successfully develop the forensic educational package, the researcher utilised different types of teaching strategies. According to Brewer (2002), educators have found that adults learn best when exposed to concrete learning situations that draw upon personal experience. In addition, Dowd and Davidhizar (1999) found that case studies were a useful learning strategy. Lastly, Johnson, Zerwic, and Theis (1999) found that nurse educators increased decision-making and clinical skills when clinical simulations were used in conjunction with clinical teaching. As a result of the positive outcomes described in the above studies, the researcher incorporated a variety of teaching strategies in this study. The results of this study showed that implementing the various strategies described above was very useful in modifying ED nurses perceptions, knowledge and care.

To evaluate whether the forensic educational package had been effective the researcher monitored whether participants experienced any improvement in their forensic knowledge or changed their clinical practice behaviour over time. To examine whether any improvements occurred in participant knowledge regarding forensic nursing issues, the researcher utilised the pre-test post-test design. This type of research design is commonly used in healthcare research and has been found to be relatively robust (DeVaus, 2002; Schneider, et al., 2003).

A study by Rezaei, Seydi, and Alizaseh (2004) discussed the effects of two educational methods on the knowledge, attitude, and practice of 129 high school teachers in Iran. The study found that using formal lectures and flash cards was more effective than using written pamphlet material alone. As with this study, knowledge, attitude and practice skills were evaluated. Furthermore, Rezaei, Seydi, and Alizaseh utilised the pre-test, post-test design to evaluate the educational intervention. Similar to this study, Rezaei, Seydi, and Alizaseh found that utilising multiple teaching strategies provided significant differences in pre and post-test mean scores of knowledge and attitude between the control and treatment groups.

Similar benefits were demonstrated while using multiple educational methods in studies by Wang, Fennie, He, Burgess, and Williams (2003), and Chan and Ko (2006). Both studies investigated the effects of a nurse led educational program on knowledge, attitude and practice behaviour. Both studies found that the treatment groups who were exposed to structured lectures and practice demonstrations displayed significantly higher scores on the post-test evaluations compared with their pre-test scores and the same result was seen when the treatment groups' post-test scores were compared with those of the control group participants.

The educational intervention provided in the study by Chan and Ko (2006) was 45 minutes in duration and carried out by the same RN. The study intervention provided by Wang, et al. (2003) incorporated a 60-minute structured lecture and a 20-minute demonstration video. Both research designs incorporated a pre-test post-test questionnaire in addition to the inclusion of a control group. The research designs and data analysis findings from this study and the two above cited studies all demonstrated that there were positive changes in knowledge, attitude and practice

behaviour as a result of incorporating multiple educational methods in the study design.

In all of the above cited literature, multiple teaching methods were found to be beneficial. The data in this study demonstrated similar results in that participants who attended all three workshops improved their pre and post-test questionnaire results by an average of 20 marks. In this study the teaching methods incorporated a mixture of structured lecture material, case study scenarios, practical sessions, and written material to support and improve treatment group participant's knowledge and skill levels. In addition, each HospC participant was given a ruler and forensic prompt card (see Appendix 15) to carry with them. This strategy served as a physical reminder to trigger participants' memory and reinforce the forensic nursing practices discussed during the workshops through sight and touch. The strategy of targeting multiple senses such as sight, hearing and touch was demonstrated effectively by Rezaei, Seydi, and Alizaseh (2004).

Overall, the above referenced studies incorporated multiple teaching methods during the implementation of an educational program. In addition, all of the studies chose to evaluate the effectiveness of the educational program by using a pre-test post-test design. Similar to this study, the incorporation of multiple teaching methods proved to be effective based on analysis of the data. To complete the comparison of this study's findings with that of other literature, an examination of theoretical perspectives utilised in other studies will be considered below.

### ***Theoretical perspectives***

There were two theoretical perspectives that were used in this study to provide guidance and structure during the development of the forensic educational package. The two theoretical perspectives included Knowles (1980) adult learning principles and the social cognitive theory (SCT). Each of the two theoretical perspectives and the findings from other literature will be examined separately below.

#### **Knowles adult learning principles**

Until Knowles (1980) reported that adults and children learn differently, most educators believed that the teaching principles used for children were also suitable

for adults. In the early 1970s, Knowles coined the term “andragogy” to describe the learning style of the adult learner. However, andragogy has been described by others as a set of guidelines, a philosophy, and even a set of assumptions (Knowles, Holton, and Swanson, 1998). Today, many adult educators believe that the inclusion of Knowles adult learning principles into the planning and implementation of any contemporary educational program is beneficial and essential to increase the chances of teaching success (Shysh, 2000; Baltimore, 2004; Duncan, Alperstein, Mayers, Olckers, and Gibbs, 2006; Hopper and Holland, 2005; Russell, 2006; LeCroy, 2006).

According to Knowles, Holton and Swanson (1998), andragogy describes a theory that is comprised of five main assumptions. The five main assumptions that characterize adult learners include: (1) adults need to know why they need to learn something (self-directed); (2) adults learn from experiences, to reject adult experience is to reject the adult; (3) adults approach learning as a way to be more effective in problem solving; (4) adults learn best when the topic is of immediate value; and, (5) adults must be motivated in order for effective learning to transpire (Sullivan and Decker, 2004).

In order for this study to be adult and learner focused, the researcher incorporated Knowles adult learning principles during the workshops to help contribute to the successful implementation of the forensic educational package. It was observed in this study that during several of the practical workshop sessions, for example, some participants did not believe that collecting and preserving forensic evidence should be a nurse’s responsibility. Instead participants believed that evidence collection was the duty of police or doctors only. However, once participants became involved in the practice sessions and discussions, opinions altered. Some participants quickly appreciated how quickly evidence could disappear, how simple collection activities were, and the impact that such incidences could have on their patient’s or loved ones overall health and wellbeing.

In addition, the researcher ensured that all of the participants were informed why the workshop content was important to patient outcomes and how the information could be applied to their daily practice. In this study, for example, during workshop three, injury documentation activities highlighted the need of why participants need to

thorough and vigilant with their documentation skills. From these practice sessions, participants identified the need to improve their medical terminology vocabulary and identified gaps in their current documentation practices. As a result, participants sought opportunities during their rostered shifts to reinforce and practice the documentation ideas discussed during the workshop.

The researcher also acknowledged previous learning from participants by encouraging participants to share forensic case studies. For example, one case study reinforced the need for nurses to always use good objective documentation. The case study involved a forensic patient who sought medical treatment in the ED for a work related injury. The lack of medical documentation jeopardised the patient's compensation claim and subsequently adversely affected the patient's recovery process. Realistic examples helped demonstrate and educate the participants about how important it was to utilise objective nursing documentation and it allowed the participants to discuss how forensic practice skills impact patient's lives.

Lastly, the researcher utilised multiple teaching strategies and discussed different problem solving techniques to help maximise learning. At the beginning of the forensic workshops in this study, most of the participants did not appreciate the variety or the volume of forensic patients that nursing staff cared for on a regular basis. Evidence of this knowledge gap was seen in the low score of pre-test question three – identifying possible forensic patients. Once learners became aware of the existence of 27 forensic patient categories, the importance for participants to accept the new knowledge and skills became more relevant.

The use of group discussions throughout the three workshops encouraged participants to highlight and share personal experiences they experienced while caring for forensic patients. Such real-life situations further increased the readiness for participants to accept and absorb the workshop information. All of the experiences shared by participants added depth to the workshops discussions producing an environment where participants felt comfortable to freely express themselves.



The greatest improvements in HospC participant knowledge was seen in relation to questions where case scenarios were used (8, 15, 17, 18, 19, and 20). During the workshops, participants were interested in discussing forensic cases they had difficulty with and were involved with in the past. Participants wanted to get answers to their forensic questions to ensure that any mistakes made in the past were not repeated and that improvements could be made to patient care.

Nursing is a very practical profession and therefore, using case study scenarios to show forensic concepts and ideas proved to be an effective teaching strategy. Participants found that they were more likely to remember forensic principles if the information was related to real cases and patient situations. Utilizing a case study approach enabled the researcher to concentrate on specific instances or situations participants were likely to experience thus enhancing the cognitive skills of the participants (Caffarella, 2002). Similar success in healthcare education was discussed in McAllister (2000) and McAndrew and Samociuk (2003).

Both of the above healthcare education studies found that the use of case study succeeded in expanding knowledge, increased the use of clinical judgement, and encouraged critical thinking of participants. McAllister (2000) explored how the use of case studies affected the practical knowledge of psychiatric/mental health teaching. McAllister found that the use of case studies expanded inquiry by participants by clarifying aspects of mental health issues that participants had not fully appreciated before. Furthermore, McAllister found that case studies provide a better way to reconstruct ways of understanding the mental health experience.

McAndrew and Samociuk (2003) explored ways of providing mental health nurse education. Like this study, McAndrew and Samociuk found that the use of case studies to provide educational material allowed the researcher to concentrate on specific issues and situations. McAndrew and Samociuk further noted that participants tended to listen intently to each other whilst participants shared case studies. Furthermore, McAndrew and Samociuk noticed that interactions were frequent and spontaneous between participants.

A UK study by Hughes, Parker, Payne, Ingleton, and Noble (2006) examined the effectiveness of a palliative care educational programme for community nurses. The practice based educational programme was developed by nurses and participants were monitored for increases in knowledge and changes in practice behaviour. Similar to this study, a range of teaching methods were used (facilitated workshops, reflective practice exercises, and case studies). Hughes, et al., incorporated Knowles (1980) principles which advocate for the participants to be active rather than passive learners. In that study, participants were encouraged to participate in discussions and share professional experiences.

To evaluate the effectiveness of the educational programme Hughes, et al. (2006) used a pre and post-test design. The findings of this study were similar to those of Hughes, et al. in that the educational material was shown to have increased the knowledge and change the practice behaviour of participants. In addition, participants voiced their desire to have access to further education. Lastly, in both studies, participants reported liking the different teaching methods as they felt their preferred type of learning style had been included. As a result, the educational package in this study and that in the above study were noted as being effective in regards to achieving the study objectives.

### **Social cognitive theory**

The incorporation of Bandura's SCT provided the researcher with a theoretical perspective of how best to deliver nursing education that would encourage the acceptance of new knowledge and promote change in nursing practice. Bandura (1977) reported that people learn new behaviours through direct experience or by observing others perform the behaviours. Furthermore, Bandura proposed that observational learning is more effective when the learner is informed in advance about the benefits of adopting certain behaviours. In other words, behaviour is learned through cognitive processes before the new behaviour is performed.

Therefore, the workshops in this study were arranged so that the first workshop was an introductory session that explained what forensic nursing was and how forensic nursing principles could be utilised in the ED practice setting. In order for participants to accept the new knowledge and be able to transmit such knowledge

into their nursing practice, participants had to have a clear idea about what was considered best forensic nursing practice and the parameters of forensic nursing practice this study was going to focus upon.

An article by Bahn (2001) examined the SCT and critically analysed its principles to assess its value and application to nursing education. In addition, Bahn examined the component processes (attention, retention, motor reproduction, and motivation) which Bandura suggests determines the outcomes of observed behaviour. Bahn stated that individuals involved in the field of education should incorporate psychological theories and learning factors that impact motivation, perception and memory. This analysis of Bandura's work supported the reason why the researcher believed that it was necessary to address the issues of nurse motivation and perception about education.

Bahn (2001) suggested that the integration of knowledge and practiced behaviour can be achieved when the two are combined into examples of real situations. During the workshops, every attempt was made by the researcher to integrate as much of the forensic information into real life context through the use of case studies and practical sessions. Participant's found this type of learning helpful as they could relate to the information and easily apply the forensic nursing concepts. Furthermore, participants believed that the practical sessions were necessary to provide a better understanding of the procedures discussed during the workshops. Bandura (1977) suggested that modelling events using meaningful verbal clues could be a very effective strategy for encouraging the retention of observed knowledge.

A study conducted in the USA investigated what were the best ways to provide education to community paediatricians about issues that relate to child health equity and social justice (DeWitt, 2003). According to DeWitt, such training would require paediatricians to think and practice differently. Before implementing such education, the challenge expressed by DeWitt, was for the participants to understand the educational processes required to motivate adult learners to accept knowledge, attitudes, and skills that did not encompass typical experiences and perceived professional needs. Similar challenges faced the researcher in this study because much of the content contained within the forensic educational package was new

information or practice skills not thought of as “typical” nursing responsibilities (Sekula, 2005). Therefore, like DeWitt, the issue of motivation was paramount for the researcher to address in order to achieve the study outcomes.

For this study, the researcher was challenged about how to motivate participants about changing their attitudes regarding recognition of forensic patients, about the type of roles and responsibilities nurse could undertake regarding forensic patient care, and about changes in practice that could affect a forensic patient’s legal proceedings. DeWitt (2003) faced similar challenges in relation to trying to increase participants’ knowledge about child advocacy issues and ensuring equity in child health. In order to encourage nurses in this study to accept new knowledge, change attitudes, and alter practice behaviour, participants needed to have internal motivation because many of the forensic nursing concepts and skills were not typically perceived to be regular nursing roles within the ED setting.

As with this study, DeWitt (2003) applied the principles of the SCT and Knowles (1980) adult learning principles in order to develop and implement a successful curriculum. DeWitt believed that SCT contained two essential concepts that assisted the uptake of educational material; motivation and modelling. Since the idea of forensic nursing is new to most ED nurses, the concepts of motivation and modelling were central to the success of this study. If the participants were not motivated to learn and accept the ideas presented during the three forensic workshops, then the likelihood that the knowledge and skills would be utilised in daily practice was greatly reduced.

Therefore, the researcher used a typical nursing modelling approach during the education sessions; in other words, see one, do one, teach one. During the workshops, the researcher provided time to teach and show participants how to complete new forensic skills. In addition, time was provided to participants to practice such skills in a supportive environment. Lastly, during workshop C, all participants were given time to discuss, problem solve and share ideas about the newly learned skills. The incorporation of the SCT concepts of modelling and motivation provided the participants with the opportunity to observe the modelled behaviour, understand its importance, and discuss its relevance to their patients.

DeWitt (2003) argued that such awareness provides motivation for the learners to incorporate the new knowledge, skills and principles into their daily practice.

Lastly, the researcher consulted nursing, forensic and management texts (Crisp and Taylor, 2005; Lynch, 2006; Hammer, Moynihan, and Pagliaro, 2006; Mays and Winfree, 2000; Goldsmith, Isreal, and Daly, 2006; Robbins, 2004; Sullivan and Decker, 2004) which included discussions about the importance of understanding SCT in relation to health teaching, explaining forensic events, improving the likeliness of behavioural change, and understanding trends in perpetrator behaviour. For example, Crisp and Taylor suggest that when SCT concepts are understood and incorporated into patient teaching, nurses and their patients' experienced enhanced learning and improved motivation. The resultant effects of such experiences include patients being more likely to adopt behavioural changes to help them succeed in achieving the desired outcomes.

According to Sullivan and Decker (2004, p365), there are three questions that should be considered while planning an educational program: (1) Can the learner do what is expected of them?; (2) How should the educational program be arranged to facilitate learning?, and (3) What can be done to ensure what is learned will be transferred to the job? In order to best answer such questions and therefore develop the most successful forensic educational package possible, the researcher consulted various research studies, theoretical perspectives and texts for guidance and support. From the available literature, the researcher found great support for the usage of the pre-test post-test research design accompanied by the support of SCT concepts and Knowles adult learning principles. Lastly, the concept of integration between and among constructs represented in Lynch's practice model also provided guidance during the development of the forensic educational package.

Ultimately, the development of the forensic educational package required more depth than could be provided by either Lynch's broad model constructs (fields of expertise, societal impact, and the healthcare system) or by any of the individually published research articles reviewed above. Therefore, the researcher found it necessary to create a model that incorporated topics within forensic nursing and education. Issues of interest within these two fields included the complex issues of forensic nursing,

aspects of effective teaching, and the development of functional educational material. Two of Lynch's broad constructs (fields of expertise and healthcare system) were used as an initial framework upon which the new model was based. A complete description of the constructs and all of the components associated with the model development will be discussed below.

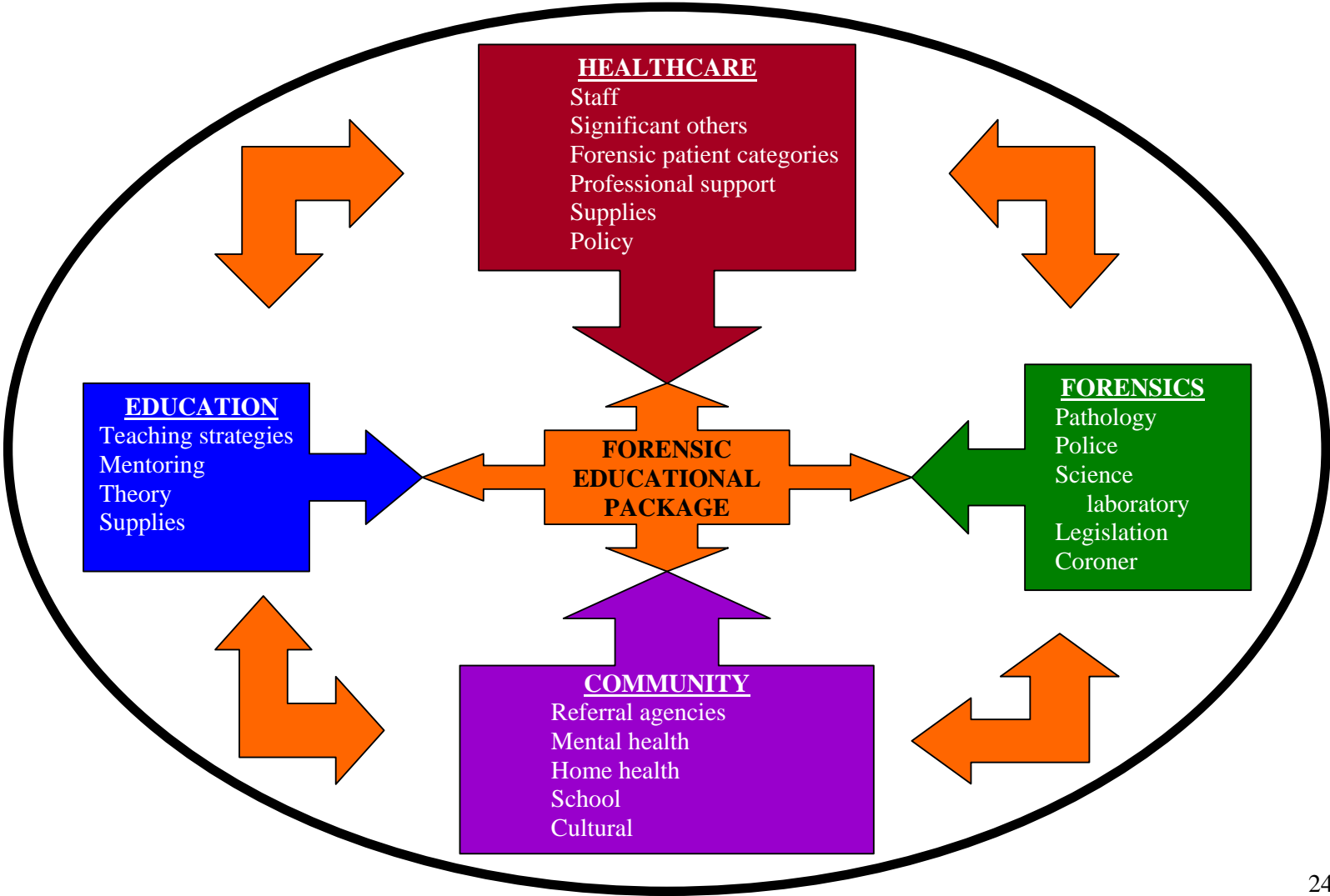
## **Forensic Educational Model for the Enhancement of Clinical Nursing Practice**

In this study, the fields of expertise and healthcare system constructs from Lynch's model and the symbolism associated with the interlocking circles was used during the development of the new forensic education model. The Forensic Educational Model for the Enhancement of Clinical Nursing Practice consists of four constructs including; Healthcare, Forensics, Community, and Education (see Figure 11). Each of the four constructs were essential during the development of the educational package. Associated with each of the four constructs were sub-components. The sub-components were specific elements that explained and assisted the researcher to clarify issues that arose under each main construct. For example, some of the issues the researcher confronted during the development of the educational package included:

1. Which professionals from the healthcare system would provide the greatest amount of insight about clinical forensic issues confronting RNs who work in the ED?
2. What level of forensic knowledge should be included?
3. Which forensic stakeholders should be consulted?
4. What teaching strategies were best to support best practice skills?
5. What were the most important legal issues to include?
6. What theoretical support would benefit this study the most?

Together the four constructs and associated sub-components help explain the people, the issues and topics that the researcher utilised during this study that enabled and guided the development of the educational package. The arrows located in the four corners were used to depict the interconnection that exists between and among the

**Figure 11: Forensic Educational Model for the Enhancement of Clinical Nursing Practice**



four constructs. The above questions and a complete description of the model will be discussed in greater detail below.

### ***Healthcare***

The three broad concepts (Victim and Significant Others, Forensic Nursing, and Health Care Institution) Lynch (2006) identified under the construct of Healthcare System provided the general framework for this theme. However, the researcher found that greater depth about how a forensic educational package would affect the clinical environment of an ED was required. To incorporate such details, the researcher was required to include topics not discussed or referred to in Lynch's model construct of Healthcare System. For example, the researcher had to consider how other hospital staff such as nurses not involved in the study, medical staff, clerical staff, medical records staff, social workers, and hospital management might be affected by the implementation workshops, and what role, if any, they would be called upon to undertake in this study.

Furthermore, the patient populations to be targeted by this study needed to be clarified as well as any issues that might affect the well being of the patient's family and/or significant others. In addition, issues of costs, medical supplies, and further workload for staff were a concern to hospital ED management. Such concerns are fairly universal due to the tight budgets that healthcare managers are restricted by in terms of staff and supply resources (Morrissey, 2002; Cohen, 2003). Lastly, the researcher needed to ensure that the study protocols were not in conflict with hospital policies or those from professional nursing bodies such as the Nurses and Midwives Board of Western Australia.

### ***Forensics***

In addition to the Healthcare construct, the Forensic construct had a significant influence upon the type of content contained within the educational package for this study. The four interconnected sub-components associated with the Forensic construct made reference to the professional areas of expertise where the stakeholders who contributed to this study worked. The speciality areas considered essential to consult during this study included: Forensic Pathology, Police Department, Science laboratory (biology and chemistry), and Legislation (Coroner,



Prosecutors and Defence Council). The contributions made by such experts had a direct impact on the relevance, accuracy, and currency of the forensic educational package content. Although Lynch's model does not name specific forensic experts, the model does include the construct identified as "Field of Expertise" in the outer circle of the model. The sub-components identified in this study's model were found to be a comprehensive list that provided the necessary and essential medico-legal support for this study.

### ***Community***

The main rationale for including the Community construct into the Forensic Educational Model was due to the disturbingly inadequate level of documentation about issues of discharge planning and patient education identified during the chart checking audits of this study. Items relating to such areas ranked the lowest out of the 15 items monitored in the pre and post chart check data for both treatment and control group participants.

Lynch (2006) included the construct of societal impact as well as society, culture and politics and sociology in the outer circle of her model but did not provide further details about each topic. The five sub-components (home health, referral agencies, mental health, school and culture) were included in the Forensic Educational Model to advocate and promote interagency cooperation and communication. Furthermore, the range of sub-components provide learners with guidance about what aspects of community involvement may be needed to assist forensic patients with their recovery. The inclusion of such agencies and community issues encourage participants to think about and consider what type of discharge information and specific education requirements their forensic patients may want or need.

### ***Education***

To optimise the outcomes of this study, it was essential that the educational strategies employed to deliver the educational material contained in this package were useful, practical and effective. The three sub-components the researcher identified to be most important were mentoring, theoretical support and teaching strategies. The outcomes of this study depended on how the information contained within the educational package was received by participants. The idea to include a variety of

teaching strategies was widely supported by the published literature so too was the issue of mentoring. Lastly, numerous healthcare studies discussed how including theoretical models could complement and positively affect research outcomes (DeWitt, 2003; Bahn, 2004). The researcher believed that the success of this study was greatly enhanced by the inclusion of Knowles adult learning principles and SCT which provided strength and cohesiveness to the concepts outlined in Lynch's model.

Overall, the Forensic Educational Model that resulted from this study outlines four essential constructs that provided the overall framework for the development of the forensic educational package. The various sub-components listed under each of the four constructs provide greater detail as to the professionals and associated issues that were vital to and directly linked with the successful outcomes of this study. The overall framework and the idea of the interlocking and interrelated concepts was carried over from Lynch's Forensic Nursing Integrated Practice Model and represented in this model by the large outer circle encasing all of the essential constructs and sub-components. The central forensic educational package is depicted to have been influenced by all four constructs by the double ended arrows which connect and interlock the construct boxes. On the whole, the Forensic Educational Model provides a more detailed description of the great variety of educational, healthcare and forensic issues that were confronted by the researcher during the development of the forensic educational package.

### **Comparison of Lynch's Forensic Model to the Educational Forensic Model**

Lynch's theoretical framework speaks of the necessary aspects for the successful development of the specialist forensic nurse role. Lynch's model provides a conceptual framework and includes areas from which forensic nursing expertise is based including nursing science, forensic sciences and criminal justice (see Figure 2, Chapter 2). The model describes three main constructs (fields of expertise, societal impact, and the healthcare system) and emphasizes the importance of interagency coordination, cooperation, and communication (Lynch, 2006).

The three interlocking circles that lie underneath the construct of the “healthcare system” include; health care, forensic nursing, victim and significant others. The healthcare system construct represents the relationship of how health care, forensic nursing and victim and significant others interrelate and interact. Each of the four components are considered equally valuable as individual identities become strengthened when supported by the other two components. In other words, there is no one component seen to be more significant than another. Therefore, unless all three components under the health construct are given equal consideration the effectiveness of the healthcare system construct will not work to the optimum level. This type of interconnectedness within constructs is represented throughout Lynch’s model with the symbolic interlocking circles.

Rooms (2004), as with this study, utilised Lynch’s model as a general framework which provided guidance for his Masters research. The purpose of Room’s research was to describe the forensic nurse’s role in trauma centers across the United States. Room’s utilised the single healthcare construct and based his investigations upon the relationship with forensic nursing practice. Room’s utilised the symbolism of the interlocking circles under the healthcare construct to provide guidance about the aspects of the healthcare construct he would incorporate and have influence his study.

For this study, the two constructs from Lynch’s model of primary interest were fields of expertise and healthcare system. Lynch does not elaborate about the three constructs other than to depict the areas from which knowledge is drawn (pictorially represented by interlocking circles). Therefore, the researcher found it necessary to develop a model that specifically addresses all of the issues confronted by the researcher during this study.

In this study, the forensic and healthcare stakeholders and the majority of participant nurses had no previous contact and little awareness about the scope and clinical practices involved with forensic nursing. Therefore, during this study, the researcher sought the advice from many individuals who provided care or professional services to forensic patients. Such input allowed the researcher to develop a comprehensive educational package.

To enable anybody within Western Australia or across Australia to replicate and utilise this educational package, a detailed description and pictorial representation of the Forensic Educational Model which provided the framework for the educational package was required. In comparison to the Lynch model, the Educational Model for the Enhancement of Clinical Forensic Nursing Practice is a detailed expansion of Lynch's model. It outlines clearly all of the professionals and environments that contributed to the package and must be included with its implementation. Like Lynch's model, there is no one construct or sub-component seen to be more significant than another. Therefore, unless all constructs and sub-components are given equal consideration the effectiveness of the educational material provided to nurses could prove to be ineffective and/or incomplete.

### **Limitations of the Study**

The researcher identified three main limitations that impacted upon the reporting of study results or would impact on other researcher should any individual want to replicate any aspect of this study. The three limitations identified in this study will be discussed below.

Firstly, all nurse participants came from two large metropolitan hospitals. Nurses working in the rural and remote areas of Western Australia may have forensic issues that were not considered or addressed in this study. Without the representation of such populations, it is difficult to generalise the results of this study to nursing populations across Western Australia. Issues such as evidence collection, chain of custody, and evidence storage may present the greatest challenges due to incidents of isolation and possibly the lack of specially trained forensic personnel in regional Western Australia.

Secondly, the resource material was designed so that any hospital could easily personalise the generic forms by adding their specific hospital name. However, the referral agency phone number information sheet was designed specifically to cater for the community boundaries set by local shire parameters where HospC was located. Therefore, such information sheets would not necessarily be applicable to other facilities throughout Western Australia and therefore this resource list would

need to be tailored to each specific healthcare institution and nearby community agencies.

Thirdly, there was a large drop out rate of control group participants between collection of the first and second questionnaire (74%). Such an unfortunate occurrence prevented some statistical comparisons to be completed between control and treatment group data. Without greater representation of control group participants, the study data was not able to be compared to the treatment group.

## **Conclusion**

Each year, more than 1.6 million people worldwide lose their lives to violence. For every individual who dies as a result of violence, many others suffer from a range of physical, sexual, reproductive and mental health problems (World Health Organisation, 2002). The World Health Organisation has recognized that violence is among the leading causes of death for people aged 15-44 years worldwide. Often the first point of contact for most crime victims is hospital emergency departments; therefore, healthcare agencies need to address the problem of violence in a comprehensive manner (World Health Organisation, 2002).

To achieve maximum patient outcomes and approach each forensic case in a holistic manner, forensic and healthcare professionals must work together in partnerships to develop effective responses to violence. According to Glittenberg, Lynch, and Sievers (2007), the purpose of forensic nursing science is to assist in the reduction and prevention of abuse and human violence throughout society. It is vital to have trained forensic healthcare professionals available in all hospital emergency departments to correctly identify and initiate appropriate care to all forensic patients who seek treatment. To achieve such a goal, all members of the healthcare team need to be provided with specialist forensic education.

Qualitative data uncovered during stakeholder interviews, workshop evaluations, focus group sessions, and follow-up participant interviews provided a rich description of perceptions regarding the type of forensic education considered necessary by experts and healthcare professionals. Furthermore, study feedback

indicated that nurses were generally interested in gaining forensic knowledge and improving the standards of care they provided to forensic patients. Overall, the study data indicated that there is a general lack of forensic knowledge held by most ED nurses. This study also highlighted inconsistencies regarding the knowledge healthcare, police and other forensic stakeholders have concerning roles and levels of expertise among and within healthcare and forensic professionals.

Healthcare and forensic stakeholders identified five key forensic issues that were used to guide the development of the forensic educational package (assessment of forensic patient, roles and responsibilities, evidence collection, legal issues, and communication). The educational package developed for this study proved to increase the knowledge of participants and produced some change to nursing practice. Due to the complexity and newness of clinical forensic nursing issues, changes in nursing practice may prove to be slow and difficult to notice initially. However, before any substantial changes can be expected to occur within nursing practice, regular and comprehensive forensic education must be made available to all Western Australia nurses. All nurses in Western Australia must be exposed to the concept of forensic nursing and understand the importance of incorporating forensic nursing principles into everyday practice. Only then will real change be noticed. This research study was developed as an initial step upon which to advance and expand forensic education throughout Western Australia.

\*\*\*\*\*

*Thomas remembered seeing the police that day. They had stood in the doorway while the doctor spoke to Thomas. They had spoken to the other hospital staff who came to Thomas' aid. What went wrong? It was so easy before when he had been in charge. It would have been all organised. Now it was all up to Thomas yet again. He needed to get things organised and move forward.*