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Day surgery nurses' selection of patient pre-operative information

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**D A Y S U R G E R Y N U R S E S ' S E L E C T I O N
O F P A T I E N T P R E - O P E R A T I V E
I N F O R M A T I O N**

A b s t r a c t

Aims and Objectives: To determine selection and delivery of pre-operative verbal information deemed important by nurses to relay to patients immediately prior to day surgery.

Background: Elective day-case surgery is expanding, patient turnover is high and nurse/ patient contact limited. In the brief time-frame available, nurses must select and precisely deliver information to patients, provide answers to questions and gain compliance to ensure a sustained, co-ordinated patient throughput. Concise information selection is therefore necessary especially given continued day surgery expansion.

Study Design: Electronic questionnaire.

Methods: A survey investigating nurses' choice of patient information prior to surgery was distributed throughout the United Kingdom via email addresses listed on the British Association of Day Surgery member's website (Jan 2015 - Apr 2015).

Results: Participants were requested to undertake the survey within 2 to 3 weeks with n=137 completed giving a 44% response rate. Verbal information deemed most important by nurses pre-operatively was checking fasting time, information about procedure/ operation, checking medication, ensuring presence of medical records/ test results and medical investigations checks concluded. To a lesser extent was theatre environment information, procedure/ operation start time and possible time to discharge. Significant differences were established between perceived importance of information and information delivery concerning the procedure/ operation and anaesthesia details.

Conclusion: Nurses working with competing demands and frequent interruptions, prioritised patient safety information. Although providing technical details during time-limited encounters, efforts were made to individualise provision. A more formal plan of verbal information provision could help ease nurses' cognitive workload and enhance patient satisfaction.

Relevance to clinical practice: This study provides evidence that verbal information provided immediately prior to day surgery may vary with experience. Nurse educators and managers may need to provide greater guidance for such complex care settings as delivery of increasingly technical details during brief encounters is gaining increasing priority.

W h a t d o e s t h i s p a p e r c o n t r i b u t e t o t h e w i d e r g l o b a l c l i n i c a l c o m m u n i t y ?

- Findings suggest nurses working with competing demands and frequent interruptions, prioritised verbal information concerning checking fasting time, provision of information about the procedure/ operation, checking medication taken (required for co-morbidities) ensuring presence of medical records/ test results and medical checks completed.
- Conveyed to a lesser extent was issues concerning the theatre environment, procedure/ operation start time and possible discharge time.
- Pre-operative information regarding the procedure/ operation and anaesthesia revealed significant differences between the perceived importance and actual delivery. Delivery in these areas did not reach the same level as stated importance.

I n t r o d u c t i o n

Expansion in volume and scope of minimal stay elective surgery continues largely due to issues associated with healthcare cost containment (Ingrassia *et al.* 2013), medical innovation (Hollenbeck *et al.* 2010) and patient preference (Harries *et al.* 2013). An increase in the United Kingdom day surgery rate over the last 15 years has saved the NHS approximately £2 billion and enabled 1.3 million more elective surgery patients to be treated (Alderwick *et al.* 2015). Within the minimal stay setting, high patient turnover is implicit, multitasking common and intervention undertaken during time-limited nurse/ patient encounters (Bundgaard *et al.* 2014). Effective nursing care remains a crucial element in such settings (Scott *et al.* 2014) and the information provided of vital importance to aid patient satisfaction, reduce anxiety and enable a swift home recovery (Brattwall *et al.* 2010, Lemos *et al.* 2009). To facilitate continued growth, the provision of information to surgical patients has undergone much change in content and delivery (Heikkinen *et al.* 2010). However, with this continued expansion, time available for nurse/ patient interaction can be brief and intermittent (Hamström *et al.* 2012). Quickly assessing and delivering the appropriate information to gain psychological readiness whilst ensuring bio-medical preparation for the procedure/ operation can be challenging for nurses (Timmins & McCabe 2009). Time constrains determine nurses must relay the concise verbal information amid uncertainty that it meets patient expectations (Gilmartin 2007). A study to determine day surgery nurses' selection and delivery of verbal information was undertaken as a paucity of studies have been conducted in the area of minimal stay surgical nursing.

B a c k g r o u n d

Implementation of enhanced recovery techniques are transforming elective surgical care and permitting patients to recover sooner during the post-operative period (Berger *et al.* 2009, Department of Health 2010). Reduced hospital stay for both major elective (Norlyk & Martinsen 2013) and intermediate surgery (Brökelman & Toftgaard 2013, Ghosh *et al.* 2014) continues to grow allowing an increasing level of surgery on a minimal stay basis (Subramani *et al.* 2015). Hospital units admitting patients directly from home ready to be transferred to the operating theatre are also increasing (Sofela *et al.* 2013) further adding to healthcare cost containment (Schwartz *et al.* 2015). Moreover, patients prefer the minimal stay surgical experience with its emphasis on speed, predictability and control (Mottram 2010). Surgical healthcare practices are thereby being transformed and nurses increasingly deliver high quality care to a growing number of patients experiencing recovery at home within hours of surgery (Brattwall *et al.* 2011). Gaining increasing importance during the brief hospital stay is therefore the concise content and provision of information (Mitchell 2013).

In a literature review concerning information provided to surgical patients by nurses, Suhonen and Leino-Kilpi (2006) suggested day surgery patients to be the most challenging group. "Overall, clinical nursing practice (*surgical*) still appears to have a task-centred approach to patient care that is associated with nursing in the past. It also seems that there are restricted opportunities for patient dialogue with nursing staff that limit possibilities for patients to ask questions." (p. 12). Majasaari *et al.* (2005) advise many day surgery

patients desired more information, home recovery information and increased privacy during dialogue. In a day surgery study documenting care, Sjetne *et al.* (2009) suggested greater emphasis be placed on information provision but there was less time to 'get to know the patient'. In a survey of Turkish day surgery nurses, 80% believed the information they provided was inadequate due to insufficient staffing, being unable to know patients well, lack of self-knowledge and patient education not being their primary task (Sayin & Aksoy 2012). Wagner *et al.* (2005) advocate the physical aspects of recovery are discussed more than emotional aspects in short stay settings and recommend such issues be discussed to the same degree. Lee and Lee (2013) uncovered 47% of surgical nurses believed they did not provide all the information necessary and discrepancies between what they think should be provided and what was delivered remain. Lee and Lee (2013) state "Preoperative patient teaching may not be a top priority for nurses when time constraints and heavy workload were confronted in the clinical environment." (p. 2559).

Enns and Gregory (2007) suggest patient throughput in modern surgical practices determine physical needs receive greater attention over emotional aspects, marginalising various areas of nursing. Many patients can become anxious prior to day surgery (Mitchell 2010) and verbal/ non-verbal information can be of considerable benefit (Soltner *et al.* 2011). Susilahti *et al.* (2004) recommend refocusing of nursing care for minimal stay patients and improvement of pre-operative patient information. With a high turnover of patients, increased workload/ intensity, inadequate resources and lack of adequate staffing, care left undone can become widespread (Blackman *et al.* 2015). In a large postal survey of nurses working on medical and surgical wards, Ball *et al.* (2013) stated "RNs working in English NHS hospitals report that care is needed but is often not done because of insufficient time." (p. 8). Missed care was identified as comfort/ talk, educating patients and developing or update nursing care plans/ care pathways. Communication and education were therefore aspects mostly left undone whereas bio-medical tasks were the least omitted aspects (pain management, treatment, procedures and preparation for discharge).

In a Finnish day surgery study, nurses revealed 29% rotated between several Minimal Stay Units thereby necessitating the need for wide-ranging knowledge and the ability to multitask (Hamström *et al.* 2012). Moreover, 33% felt they had little time for good patient care or the ability to evaluate the impact of education delivered to patients and families. Continuity of care improves when day surgery patients know the healthcare professionals caring for them and when given the opportunity to meet both nurses and surgeon before the procedure (Renholm *et al.* 2014). Sundell *et al.* (2010) state patients wanted nurses to spend individual time with them prior to surgery talking and answering questions and Berg *et al.* (2013) indicate patients require knowledge, an appreciation of what constitutes a normal post-discharge recovery and how to manage recovery. Many patients in a survey by Santos *et al.* (2012) gained information from other sources (past experiences, media, health professionals, family, friends) but nurses remained the main source. Keulers *et al.* (2007) compared two groups of patients undergoing orthopaedic surgery; information from a doctor versus information on a computer programme. Knowledge scores following the computer-based education were significantly higher and it was recommended patients would be able to self-educate successfully prior

to day surgery. Conversely, Heikkinen *et al.* (2010) created a website containing several sections for day surgery patients to view (bio-physiological, functional, experiential, ethical, social and financial) with patients rating this method of delivery positively although still wanted to speak with clinicians.

Aspects of nurse/ patient communication can become marginalised in busy healthcare settings although patients greatly appreciate nurse interaction to reduce apprehension (Hudson *et al.* 2015). Patient satisfaction surveys repeatedly consider communication and information provision as important factors (Bergman *et al.* 2012). Time constraints determine nurses convey short, concise, verbal information on the day of surgery with educational material customarily provided prior to admission (Jlala *et al.* 2010). However, in minimal stay settings patients have been viewed to desire clarity of information over quantity (Eberhardt *et al.* 2006). Current practice in the United Kingdom is for patients to be sent from their General Practitioner to the surgeon in the out-patient's department and, if surgery is recommended, referred to a pre-assessment clinic prior to admission to day surgery (Buckley & Palmer 2010). Pre-assessment clinics are good for assessing physical fitness for surgery (Smith & Jakobsson 2012) but information provision for patients can be more challenging (Mattila & Hynynen 2009). Doyle and Saunders (2009) uncovered less than half of patients received an information leaflet, 27% no anaesthetic information with 44% desiring more. Nursing in minimal stay **in the United Kingdom** is collaboratively undertaken during fleeting interactions in the out-patient setting, pre-assessment clinic, day surgery unit and community with little or no interaction between the differing nursing teams (Greenslade *et al.* 2010, Mitchell 2011). Nurses on the day of surgery must therefore commonly determine patient information requirements with little insight into previous provision. Pre-assessment and day surgery integration programmes are available to aid intra-departmental communication although can have considerable financial implications (Bouamrane & Mair 2014).

Previous studies have focused on information type (Heikkinen 2011), information timing (Heikkinen *et al.* 2008), medical information (Soltner *et al.* 2011) and information for home recovery (Jones *et al.* 2011). Few studies have been undertaken regarding nurses' selection of required verbal information and even less regarding minimal stay surgery information selection and delivery (Brumfield *et al.* 1996, Tse & So 2008). A survey of nurses working in a day surgery setting in the United Kingdom was therefore undertaken to investigate verbal information deemed necessary to select and deliver during pre-operative, time-limited patient encounters.

M e t h o d

Aim

To determine selection and delivery of pre-operative verbal information deemed important by nurses to relay to patients immediately prior to day surgery.

Participants

Qualified nurses working in a day surgery setting in the United Kingdom were contacted via the British Association of Day Surgery (BADS) member's website using listed email addresses (members only

section). Staff were invited to participate in the survey examining the selection and content of pre-operative patient information provision. The electronic questionnaire was embedded in the e-mail and staff invited to complete the survey. As no patients were involved, approval from NHS Trusts was not required although approval was gained from the British Association of Day Surgery. The email invitation stated that if the URL was accessed, this would signify consent to participate in the survey. Potential participants were advised participation was purely voluntary and all answers would be anonymous and confidential. An attachment to the email provided further information regarding the study plus the Principle Investigators email address for contact if desired.

Research Design

A electronic questionnaire survey employing a modified version of the Pre-operative Teaching Questionnaire (PTQ) (Mordiffi *et al.* 2003).

Data Collection

The Bristol Online Survey™ tool enables researchers to create questionnaires with a unique Universal Resource Locator (URL) that can be embedded into an email. The electronic questionnaire was sent to all day surgery members listed on the BADS website in England, Northern Ireland, Scotland and Wales. The email briefly explained the study and invited participation. It was further explained how participants had been identified and that the survey was purely voluntary. Moreover, it was stated the questionnaire would only take 10 minutes to complete, was totally anonymous and confidential. An attachment to the email was provided containing further information about the study should potential participants wish to gain more details. Data were collected over a 3 month period (April 2015 - July) with the number of e-mails sent being n=306 although n=44 were recorded as ‘undeliverable’ as accuracy of the BADS database can vary.

Pre-operative Teaching Questionnaire (PTQ)

The PTQ developed by Mordiffi *et al.* (2003) consisted of n=66 items in sections - 1) Operation details (n=9 items), 2) Pre-operative preparation (n=8 items), 3) Theatre environment (n=5 items), 4) Post-operative expectations (n=6 items), 5) Details of anaesthesia (n=4), 6) Information delivery (n=28) and 7) Demographic details (n=6). Responses were rated on either a 5-point Likert scale or dichotomous ‘yes/no’ format. Permission was gained from the original author’s although the questionnaire was modified as it was initially used for surgical in-patients. A number of items were removed as many aspects differed for day surgery in the United Kingdom. For example, patients are referred by the General Practitioner, visit the surgeon at the hospital and attend for pre-assessment (Fraczyk & Godfrey 2010). A pre-assessment visit is undertaken to ensure physical fitness for surgery, provide information and answer patient questions. At each stage verbal and written information is widely available (Guy’s and St Thomas’ NHS Foundation Trust 2013). Furthermore, many patients individually seek information on healthcare issues via the internet and social media (DeKoekkoek *et al.* 2015, McCarroll *et al.* 2014).

Validity and Reliability

The modified questionnaire contained n=55 items all rated on a 5-point Likert scale aside from the demographic details. The sections were 1) Operation details (n=5 items), 2) Pre-operative preparation (n=7 items), 3) Post-operative expectations (n=4 items), 4) Details of anaesthesia (n=4), 5) Information delivery (n=30) and 6) Demographic details (n=5). Once modified, the questionnaire was scrutinised by three British Association of Day Surgery members for application to the minimal stay surgical setting. When data collection was underway, slight adjustments were made to some items as a number of responses appeared to be limited by the lack of relevant options (greater range of options for items was therefore provided). Initial results of Cronbach Alpha (α) for each subscale produced values >0.7 (Table 1). The theatre environment section was omitted to help reduce survey length and a related item added in 'Details of the Operation' section.

Statistical Analysis

The Statistical Package for Service Solutions v20 (SPSS IBM, USA) was used to undertake analysis of demographic details, descriptive statistics and nurses' view of information selection and delivery. Percentage of agreement regarding selection and delivery was calculated by the number of respondents scoring high on the items (very important/ extremely important or most/ all information I could give). Cochran's *Q* test was used to explore possible significant differences between nurses' ratings of the importance of pre-operative information provision and actual delivery. A p-value of 0.05 or less was regarded as statically significant.

R e s u l t s

A total of 137 day surgery nurses (128 females, 9 males) completed the survey giving a response rate of 44%. Of this number, 47% (n=64) had 21 years or more experience as a qualified nurse (Fig. 1) with 34% (n=46) employed in the day surgery setting for 1 - 5 years (Fig. 2). The average age was 45½ years (20 - 64 years) with 56% (n=76) being over 45 years and 66% (n=90) not having undertaken a post-qualifying educational course in the previous 5 years.

During the nurse/ patient pre-operative encounter, safety appeared uppermost as determined by examining nurses reporting of required information (Table 2). The information deemed most important pre-operatively was checking fasting time, information about procedure/ operation, checking medication, ensuring presence of medical records/ test results and necessary medical checks undertaken (Table 2). Therefore, priority centred on information exchange concerned with checking crucial bio-medical issues and ensuring patients were physiologically able to undergo the planned procedure/ operation. However, not all aspects of information were judged to be communicated effectively. Of lesser importance was information about the theatre environment, start time of procedure/ operation, possible time of discharge, length of procedure/ operation and checking bladder empty (Table 2).

Information delivery was overall high aside from information regarding the theatre environment and details of anaesthesia (Table 3). An overview of pre-operative preparation information was viewed as highest priority for delivery followed by post-operative expectations and details about the procedure/

operation. Clear emphasis was placed on information for the immediate circumstances and home recovery. Ratings of 'informing patients of all they needed to know' were high although 23.4% of nurses rated this aspect as 'most of the time' or below (Table 3). For the majority, time available and language the patient spoke did not influence information conveyed (Table 4). However, delivery appeared to give rise to some variation when based on the number of times patients' had undergone the same procedure/ operation, type of questions asked, number of questions asked and patients' body language (Table 4) (Fig. 3).

Nurses reports regarding reducing information delivery demonstrated variations although time available/ time limited by schedule and lack of questions from patients did not deter provision for the most part (Table 5). Conversely, when information was regarded as the responsibility of the medical staff, nurses' knowledge considered limited or patient assessed as 'becoming too anxious', nurses responses were moderated (Table 5) (Fig. 4). Regarding cues for nurses to determine patient understanding, the aspects most relied upon were asking patients if they had understood, providing information in simple language and answering all questions (Table 6). However, asking patients to repeat the information provided greater variation (Fig. 5).

When nurses' reports of perceived importance of pre-operative information selection (Table 2) and delivery (Table 3) were analysed using the Cochran's Q test, statistically significant differences were established for 'Details about the procedure/ operation' ($X^2=19.00$, d.f.=1, n=136, $p<0.0001$) and 'Details about the anaesthesia' ($X^2=17.07$, d.f.=1, n=132, $p<0.0001$). Percentage of agreement was calculated by the number of respondents scoring high on items - very important/ extremely important or most/ all information I could give (Table 2 & 3). Nurses may have viewed information provision in such areas as important although this did not always correspond to delivery; possibly as a result of time constraints (Fig. 6). In the other three areas, no statistically significant differences were established between stated importance and delivery (Pre-operative preparation overview, theatre environment, post-operative expectations) (Fig. 6).

D i s c u s s i o n

Day surgery nurses endeavoured to provide the quality and quantity of information perceived to be required by patients during the immediate pre-operative period. Several areas of information were determined as important - safety, immediate situation, delivery and importance versus actual delivery.

When examining nurses' reporting of importance of information, patient safety was uppermost (Table 2). Patient safety issues were reflected in essential bio-medical aspects of interaction to help ensure physiological stability during anaesthesia and surgery. The information deemed important was checking fasting time, information about the procedure/ operation, checking medication instructions had been followed and ensuring medical records/ test results available. Voda (2011) likewise recognised this essential role of ensuring safety and Berg *et al.* (2013) also stated day surgery nurses focused on physiological observations to ensure a safe and efficient throughput of patients in the allocated time. In addition, a survey of day surgery nurses by Sayin and Aksoy (2012) uncovered 77% of nurses stated physiological preparation to have uppermost importance with only 40% stating psychological preparation. Communicated to a lesser

extent were details regarding the theatre environment, start time of procedure/ operation, possible time of discharge, length of procedure/ operation and checking bladder empty (Table 2). Given the customary lack of uncertainty regarding the possible length of procedure/ operation and time to discharge, hesitancy of nurses to commit to a time can be considered judicious as many medically-driven protocols can prevail causing delays (Hammond 2012). However, patients wishing to arrange transport home can desire an approximate time to discharge and it has been suggested the main carer(s) be present at discharge to receive the necessary information as patients can forget important details (Majholm *et al.* 2012). In order to make such arrangements, patients need to be aware of approximate discharge times.

The most common areas of information delivered by nurses were associated with the immediacy of the procedure/ operation - overview of pre-operative information, details about the procedure/ operation followed by post-operative expectations and information for home recovery (Table 3). Such findings are echoed in a study of Hong Kong day surgery nurses who maintained common types of information to be pre-operative preparation (53%), post-operative expectations (48%) and operating theatre environment (39%) (Tse & So 2008). In the present study when asked to gauge how often nurses informed patients of 'all they needed to know', 76.6% stated 'most' or 'all of the time' (Table 3). Whilst a large number indicated their patients were fully informed, 23.4% (1:4) nurses rated this as 'some of the time' or less. Again, this may be associated with a focus on medically-driven protocols which must prevail for day surgery efficiency and expansion (Smith *et al.* 2010). The emotional aspects of intervention are frequently omitted in such time-limited, multidimensional circumstances (Pearcey 2010). Jones *et al.* (2015) propose missed care is in reality clinical priority setting with the aspects deemed frequently low in priority being patients' emotional and psychological needs, care requiring relatively more time to complete and/ or requiring an unpredictable amount of time to complete. Moreover, Bower *et al.* (2015) asserts healthcare professionals can give information they consider important although this may not always be what the patient wants thus demonstrating some of the challenges of communicating with unfamiliar patients in a brief time-frame.

Nurses' assessment of actual delivery of information was similar to the stated importance although a few disparities arose (Table 4) (Fig. 6). For the majority of nurses, time available and language spoken by patients did not impact on the information delivered. Delivery did however give rise to some adaptation associated with the number of times patients' had undergone the same procedure/ operation, type of questions asked, number of questions asked and patients' body language (Table 4) (Fig. 3). This conflicting delivery of information can, to some extent, be an indication of lack of formal criteria upon which nurses' judge patient requirements. In an in-patient study by Fitzpatrick and Hyde (2006), nurses were unsure of pre-operative information provision as it was not clearly defined and practices varied leading to inconsistencies in dissemination. Patient education provision was dependent on the individual nurse and their degree of experience. The largest proportion of nurses in the present study had only 1 - 5 years' experience in the day surgery setting (34%) (Fig. 2) and 66% of the whole sample had not undertaken any continuing professional development in the previous 5 years. In a study of endoscopy patients, Richardson

and Brown (2013) assert knowledgeable nursing staff are required to deliver detailed information regarding increasingly complex procedures plus have the time and ability to respond to patient questions.

Older in-patient studies also examining delivery content suggest patients are more satisfied with hospital care when information problems are few (Krupat *et al.* 2000) and when the greater part of patient education takes place prior to admission (Brumfield *et al.* 1996). However, in the present study the majority of nurses were not deterred from information delivery as a result of time available, operating schedule or lack of patient questions. Nevertheless, nurses did indicate a reduction in provision when the information was regarded as the responsibility of medical staff, the nurses' knowledge was limited or when patients were assessed as 'becoming too anxious' with the details being provided (Table 5) (Fig. 4). In a study by Leino-Kilpi *et al.* (2009), it was determined some patients wanted to be fully informed as too little information was anxiety provoking whereas others desired less as too much information was also anxiety provoking. This has been termed 'vigilant and avoidant' coping where vigilant copers require much information and avoidant copers a reduced amount (Mitchell 2005). Nurses therefore responded to such cues from patients in the form of body language, questions asked and language they used. In a similar day surgery study by Tse and So (2008), 66% of nurses stated they frequently did not tell the patient everything they needed to know with the main reasons being time (82%), language barriers (79%) (*Hong Kong study*) and questions patients asked (74%). Modern surgical practices may need to recognise nurses' cognitive workload, technical details involved and patient anxiety are somewhat prohibitive for full verbal information provision in the small window of opportunity. Enhanced intra-departmental communication between outpatient setting, pre-assessment clinic, day surgery unit and community nurses would be of benefit in easing this task (Greenslade *et al.* 2010). Furthermore, support via telemedicine may be necessary in future in the form of text alerts, smartphone applications and internet programmes for contemporary pre and post-operative information exchange (Park *et al.* 2014).

Concerning perceived importance and actual delivery of information there was a statistically significant disconnect in two areas (Fig. 6). When asked to rate importance of 'Details about the procedure/ operation', 97.8% nurses rated provision highly (very important or extremely important) (Table 2). However, when rating actual delivery only 84.7% ranked such provision highly (most or all information I could give) (Table 3). This demonstrated a statistically significant reduction between perceived importance and actual delivery (Fig. 6). A similar effect was further observed regarding 'Details about the anaesthesia'. When asked to grade importance of 'Details about the anaesthesia' 83.3% rated provision highly (very important or extremely important) while only 70.8% ranked delivery as high (most or all information I could give). These results are similar to the findings by Tse and So (2008) who likewise established actual information delivery regarding anaesthesia details to be lower than the stated importance. Nurses may have desired to provide increased levels of information concerning such aspects although circumstances may temper planned delivery. Kruzik (2009) states nurse/ patient interactions on the day of surgery are frequently conducted during time constrained encounters and Willis *et al.* (2005) conclude post-operative nursing work to be

multidimensional, time-limited, technical with competing demands and frequent interruptions. Moreover, Kalisch and Aebersold (2010) maintain that clinical settings having common thoroughfares used by multi-professional staff (such as Day Surgery Units) are more prone to interruptions and consequently an increased chance of omissions occurring.

The study had a number of limitations that could have influenced the outcomes. This was a survey of United Kingdom day surgery nurses and all views may not have been fully represented as the response rate was 44%. In addition, the invitation was sent only to members of the British Association of Day Surgery who may have been more experienced in such practices, well educated in minimal stay nursing and enthusiastic about contemporary surgical nursing. Furthermore, some of the items on the questionnaire could have been considered expansive and yet brief answers were required. The survey only concerned nurses' perceptions of importance of information and information delivered. It is important therefore to note the identified factors arose from nurses' subjective perceptions. The findings may gain greater impact if both patients and nurses are surveyed simultaneously to ascertain if the nurses' importance/ delivery assessment correlated with the patients' satisfaction with provision. Moreover, future studies may wish to be extended to evaluate the main carers' experience of information provision and subsequent utility during the first week of recovery. Finally, only verbal information provision was evaluated during the immediate pre-operative period and not written, self-acquired or observation of multi-tasking and time with each patient although immediate verbal provision was the prime objective.

C o n c l u s i o n s

Provision of personalised information by day surgery nurses imparted during time-limited encounters amid competing demands is a challenging feature of modern elective surgery. Nurses with little minimal stay experience and limited post-qualifying education opportunities may need assistance in recognising/ maintaining a balance between the optimum level of bio-medical and psychological information. In addition, all nurses may require continuing education and support to help deliver multifaceted details concerning increasingly complex surgery/ procedures. A formal plan of information provision (throughout the whole surgical journey) regarding each operation/ procedure may provide a valuable framework for verbally informing patients given the context of such care delivery. Further research is required concerning the circumstances of information provision, information delivered, nurses reports of missed care and possible deficits reported by patients' during home recovery.

R e l e v a n c e t o c l i n i c a l p r a c t i c e

This study provides evidence that verbal information provided immediately prior to day surgery is consistent although may vary depending on nurses' experience. Nurse educators and managers may need to provide greater guidance for verbal information provision in such complex care settings as delivery of increasingly technical details during nurse/ patient brief encounters will grow due to the continued expansion of minimal stay surgery. Formalising the planned delivery of nurse/ patient communication between the outpatient setting, pre-assessment clinic, day surgery unit and community would be of great benefit. The areas of

communication identified here may provide a sound basis although improved intra-departmental communication is required for comprehensive patient information provision.

References

- Alderwick H, Robertson R, Appleby J, Dunn P & Maguir D (2015) Better value in the NHS: The role of changes in clinical practice. Kings Fund, London.
- Ball JE, Murrells T, Rafferty A-M, Morrow E & Griffiths P (2013) 'Care left undone' during nursing shifts: Associations with workload and perceived quality of care. *British Medical Journal - Quality & Safety*, pp. 1 - 10.
- Berg K, Årestedt K & Kjellgren K (2013) Post-operative recovery from the perspective of day surgery patients: A phenomenographic study. *International Journal of Nursing Studies* **50**, 1630 - 1638.
- Berger RA, Sanders SA, Thill ES, Sporer SM & Della Valle C (2009) Newer anesthesia and rehabilitation protocols enable outpatient hip replacement in selected patients. *Clinical Orthopaedics and Related Research* **467**, 1424 - 1430.
- Bergman M, Stenudd M & Engström Å (2012) The experience of being awake during orthopaedic surgery under regional anaesthesia. *International Journal of Orthopaedic and Trauma Nursing* **16**, 88 - 96.
- Blackman I, Henderson J, Willis E, Hamilton P, Toffoli L, Verrall C, Abery E & Harvey C (2015) Factors influencing why nursing care is missed. *Journal of Clinical Nursing* **24**, 47 - 56.
- Bouamrane MM & Mair FS (2014) A study of clinical and information management processes in the surgical pre-assessment clinic. *BMC Medical Informative and Decision Making* **14**, 1 - 15.
- Bower S, Lambert R & Barker J (2015) Evaluating post-discharge support following an operation on the Day Surgery Unit and measuring recovery at home: A pilot study. *Journal of One Day Surgery* **25**, 95 - 103.
- Brattwall M, Warren Stomberg M, Rawal N, Segerdahl M, Houltz E & Jakobsson J (2010) Patient assessed health profile: A six-month quality of life questionnaire survey after day surgery. *Scandinavian Journal of Public Health* **38**, 574 - 579.
- Brattwall M, Warrén Stomberg M, Rawal N, Segerdahl M, Jakobsson J & Houltz E (2011) Patients' assessment of 4-week recovery after ambulatory surgery. *Acta Anaesthesiologica Scandinavica* **55**, 92 - 98.
- Brökelman JD & Toftgaard C (2013) Survey on incidence of surgical procedures and percentage of ambulatory surgery in 6 European countries. *Ambulatory Surgery Journal* **19**, 116 - 120 <http://www.iaas-med.com/index.php/home>.
- Brumfield VC, Kee CC & Johnson JY (1996) Pre-operative patient teaching in ambulatory surgery settings. *American Operating Room Nurses' Journal* **64**, 941 - 952.
- Buckley H & Palmer J (2010) Overview of anaesthesia and patient selection for day surgery. *Anaesthesia and Intensive Care Medicine* **11**, 147-152.
- Bundgaard K, Nielsen KB, Sørensen EE & Delmar C (2014) The best way possible! A fieldwork study outlining expectations and needs for nursing of patients in endoscopy facilities for short-term stay. *Scandinavian Journal of Caring Sciences* **28**, 164 - 172.
- DeKoekoek T, Given B, Given CW, Ridenour K, Schueller M & Spoelstra SL (2015) mHealth SMS text messaging interventions and to promote medication adherence: An integrative review. *Journal of Clinical Nursing* **24**, 2722 - 2735.
- Department of Health (2010) Delivering enhanced recovery: Helping patients to get better sooner after surgery. Department of Health, London (http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_115155) (March 2010).
- Doyle A & Saunders P (2009) Are patients well informed about their anaesthetic? *Journal of One Day Surgery* **19**, 88 - 91.
- Eberhardt J, Van Wersch A, Van Schaik P & Cann P (2006) Information, social support and anxiety before gastrointestinal endoscopy. *British Journal of Health Psychology* **11**, 551 - 559.
- Enns C & Gregory D (2007) Lamentation and loss: Expressions of caring by contemporary surgical nurses. *Journal of Advanced Nursing* **58**, 339 - 347.
- Fitzpatrick E & Hyde A (2006) Nurse-related factors in the delivery of preoperative patient education. *Journal of Clinical Nursing* **15**, 671 - 677.
- Fraczyk L & Godfrey H (2010) Perceived levels of satisfaction with the preoperative assessment service experienced by patients undergoing general anaesthesia in a day surgery setting. *Journal of Clinical Nursing* **19**, 2849 - 2859.
- Ghosh D, Warner K, Stocker M & Barrington J (2014) An evaluation of day-case pelvic floor surgery in a district general hospital. *Journal of One Day Surgery* **24**, 45 - 49.
- Gilmartin J (2007) Contemporary day surgery: Patients' experience of discharge and recovery. *Journal of Clinical Nursing* **16**, 1109 - 1117.
- Greenslade MV, Elliott B & Mandville-Anstey SA (2010) Same-day breast cancer surgery: A qualitative study of women's lived experiences. *Oncology Nursing Forum* **37**, E92 - 97.
- Guy's and St Thomas' NHS Foundation Trust (2013) Having an Anaesthetic (Part 2), Guy's and St Thomas' NHS Foundation Trust. London.
- Hammond C (2012) Principles of Day Surgery Nursing. In Smith I, McWhinnie D & Jackson I (Ed.) *Day Case Surgery*. Oxford Specialist Handbooks, Oxford
- Hamström N, Kankkunen P, Suominen T & Meretoja R (2012) Short hospital stays and new demands for nurse competencies. *International journal of nursing practice* **18**, 501 - 508.

- Harries RL, Bradshaw CA, Jones EA & Lewis P (2013) To admit or not to admit on the morning of surgery: Patients' perspectives on day of surgery admission. *Journal of Perioperative Practice* **23**, 56-58.
- Heikkinen K (2011) Ambulatory orthopaedic surgery patients' anxiety with Internet-based education. *Journal of Orthopaedic Nursing* **13**, 212 - 213
- Heikkinen K, Leino-Kilpi H, Taina N, Anne K & Sann S (2008) A comparison of two educational interventions for the cognitive empowerment of ambulatory orthopaedic surgery patients. *Patient Education & Counseling* **73**, 272 - 279.
- Heikkinen K, Suomi R, Jääskeläinen M, Kaljonen A, Leino-Kilpi H & Salanterä S (2010) The creation and evaluation of an ambulatory orthopedic surgical patient education Web site to support empowerment. *Computers, Informatics, Nursing* **28**, 282 - 290.
- Hollenbeck BK, Hollingsworth JM, Dunn RL, Zaojun Y & Birkmeyer JD (2010) Ambulatory surgery center market share and rates of outpatient surgery in the elderly. *Surgical Innovation* **17**, 340 - 345.
- Hudson BF, Ogden J & Whiteley MS (2015) A thematic analysis of experiences of varicose veins and minimally invasive surgery under local anaesthesia. *Journal of Clinical Nursing* **24**, 1502 - 1512.
- Ingrassia C, Mclean I, Marek C & Souter R (2013) Half-day surgery. *Journal of One Day Surgery* **23**, 51 - 52.
- Jala HA, French JL, Foxall GL, Hardman JG & Bedforth NM (2010) Effect of preoperative multimedia information on perioperative anxiety in patients undergoing procedures under regional anaesthesia. *British Journal of Anaesthesia* **104**, 369 - 374.
- Jones D, Duffy ME & Flanagan J (2011) Randomized clinical trial testing efficacy of a nurse-coached intervention in arthroscopy patients. *Nursing Research* **60**, 92 - 99.
- Jones TL, Hamilton P & Murry N (2015) Unfinished nursing care, missed care, and implicitly rationed care: State of the science review. *International Journal of Nursing Studies* **52**, 1121 - 1137.
- Kalisch BJ & Aebersold M (2010) Interruptions and multitasking in nursing care. *Joint Commission Journal on Quality and Patient Safety* **36**, 126 - 132.
- Keulers BJ, Welters CF, Spauwen PH & Houpt P (2007) Can face-to-face patient education be replaced by computer-based patient education? A randomised trial. *Patient Education & Counseling* **67**, 176 - 182.
- Krupat E, Fancey M & Cleary PD (2000) Information and its impact on satisfaction among surgical patients. *Social Science and Medicine* **51**, 1817 - 1825.
- Kruzik N (2009) Benefits of preoperative education for adult elective surgery patients. *Association of periOperative Registered Nurses (AORN) Journal* **90**, 381 - 387.
- Lee C-K & Lee IFK (2013) Preoperative patient teaching: The practice and perceptions among surgical ward nurses. *Journal of Clinical Nursing* **22**, 2551 - 2561.
- Leino-Kilpi H, Heikkinen K, Hiltunen A, Johansson K, Kaljonen A, Virtanen H & Salanterä S (2009) Preference for information and behavioral control among adult ambulatory surgical patients. *Applied Nursing Research* **22**, 101 - 106.
- Lemos P, Pinto A, Morais G, Pereira J, Loureiro R, Teixeira S & Nunes CS (2009) Patient satisfaction following day surgery. *Journal of Clinical Anesthesia* **21**, 200 - 205.
- Majasaari H, Sarajarvi A, Koskinen H, Autere S & Paavilainen E (2005) Patients' perceptions of emotional support and information provided to family members. *Association of periOperative Registered Nurses (AORN)* **81**, 1030 - 1038.
- Majholm B, Esbensen BA, Thomsen T, Engbæk J & Møller AM (2012) Partners' experiences of the postdischarge period after day surgery - a qualitative study. *Journal of Clinical Nursing* **21**, 2518 - 2527.
- Mattila K & Hynynen M (2009) Day surgery in Finland: A prospective cohort study of 14 day-surgery units. *Acta Anaesthesiologica Scandinavica* **53**, 455 -463.
- McCarroll ML, Armbruster SD, Chung JE, Kim J, McKenzie A & von Gruenigen VE (2014) Health care and social media platforms in hospitals. *Health Communication* **29**, 947 - 952 946p.
- Mitchell MJ (2005) *Anxiety Management in Adult Day Surgery: A Nursing Perspective*, 1st edn. Whurr, London.
- Mitchell MJ (2010) General anaesthesia and day-case patient anxiety. *Journal of Advanced Nursing* **66**, 1059 - 1071.
- Mitchell MJ (2011) The future of surgical nursing and enhanced recovery programmes. *British Journal of Nursing* **20**, 978 - 984.
- Mitchell MJ (2013) Literature review: Home recovery following day surgery. *Ambulatory Surgery Journal* **19**, 13 - 27 <http://www.iaas-med.com/index.php/home>.
- Mordiffi SZ, Tan SP & Wong MK (2003) Information provided to surgical patients versus information needed. *American Operating Room Nurses' Journal* **77**, 546 - 549, 552 - 544, 556 - 548.
- Mottram A (2010) "Like a trip to McDonalds": A grounded theory study of patient experiences of day surgery. *International Journal of Nursing Studies* **48**, 165 - 174.
- Norlyk A & Martinsen B (2013) The extended arm of health professionals? Relatives' experiences of patient's recovery in a fast-track programme. *Journal of Advanced Nursing* **69**, 1737 - 1746.
- Park LG, Howie-Esquivel J & Dracup K (2014) A quantitative systematic review of the efficacy of mobile phone interventions to improve medication adherence. *Journal of Advanced Nursing* **70**, 1932 - 1953.

- Pearcey P (2010) 'Caring? It's the little things we are not supposed to do anymore'. *International Journal of Nursing Practice* **16**, 51 - 56.
- Renholm R, Suominen T, Puukka P & Leino-Kilpi H (2014) Continuity of care in day surgical care - perspective of patients. *Scandinavian Journal of Caring Sciences* **28**, 706 - 715.
- Richardson M & Brown S (2013) Before and after same day surgery: Are we responding to anxious patients' needs? *Australian College of Operating Room Nurses (ACORN)* **26**, 24 - 28.
- Santos R, Gomes A, Almeida M & Coelho S (2012) Impact of ambulatory surgery in the daily life of patients and their caregivers. *Ambulatory Surgery Journal* **18**, 39 - 41 <http://www.iaas-med.com/index.php/home>.
- Sayin Y & Aksoy G (2012) The nurse's role in providing information to surgical patients and family members in Turkey: A descriptive study. *Association of periOperative Registered Nurses (AORN)* **95**, 772 - 787.
- Schwartz DA, Shah AA, Zogg CK, Nicholas LH, Velopulos CG, Efron DT, Schneider EB & Haider AH (2015) Operative delay to laparoscopic cholecystectomy: Racking up the cost of health care. *The Journal Of Trauma And Acute Care Surgery* **79**, 15 - 21.
- Scott PA, Matthews A & Kirwan M (2014) What is nursing in the 21st century and what does the 21st century health system require of nursing? *Nursing Philosophy* **15**, 23 - 34.
- Sjetne IS, Krogstad U, Odegard S & Engh ME (2009) Improving quality by introducing enhanced recovery after surgery in a gynaecological department: Consequences for ward nursing practice. *Quality and Safety in Health Care* **18**, 236 - 240.
- Smith I, Cowley S, Crick H & Makin C (2010) Effectiveness of a Rapid Improvement Programme to increase day case laparoscopic cholecystectomy rates. *Journal of One Day Surgery* **20**, 80 - 86.
- Smith I & Jakobsson J (2012) Selection Criteria. In Smith I, McWhinnie D & Jackson I (Ed.) *Day Case Surgery*. Oxford Specialist Handbooks, Oxford (p. 41).
- Sofela AA, Laban JT & Selway RP (2013) Patient and staff satisfaction with 'day of admission' elective surgery. *British Journal Of Neurosurgery* **27**, 146 - 151.
- Soltner C, Giquello JA, Monrigal-Martin C & Beydon L (2011) Continuous care and empathic anaesthesiologist attitude in the preoperative period: Impact on patient anxiety and satisfaction. *British Journal of Anaesthesia* **106**, 680 - 686.
- Subramani D, Fletcher T & Ward JEH (2015) Audit of unplanned admissions following day case laparoscopic cholecystectomy: A 3 year review. *The Journal of One Day Surgery* **25**, 14 - 16.
- Suhonen R & Leino-Kilpi H (2006) Adult surgical patients and the information provided to them by nurses: A literature review. *Patient Education and Counseling* **61**, 5 - 15.
- Sundell Y, Von Post I & Lindwall L (2010) Perioperative care for older patients: A hermeneutical study. *Journal of Advanced Perioperative Care* **4**, 86 - 93.
- Susilahti H, Suominen T & Leino-kilpi H (2004) Recovery of Finnish short-stay surgery patients. *MEDSURG Nursing* **13**, 326 - 335.
- Timmins F & McCabe C (2009) *Day Surgery: Contemporary Approaches to Nursing Care*. Wiley-Blackwell, Chichester.
- Tse K-Y & So WK-W (2008) Nurses' perceptions of preoperative teaching for ambulatory surgical patients. *Journal of Advanced Nursing* **63**, 619 - 625.
- Voda SC (2011) Same-day surgery nursing: It takes teamwork. *American Journal of Nursing* **111**, 24 - 25.
- Wagner L, Carlslund AM, Sørensen M & Ottesen B (2005) Women's experiences with short admission in abdominal hysterectomy and their patterns of behaviour. *Scandinavian Journal of Caring Sciences* **19**, 330 - 336.
- Willis K, Brown CR, Sahlin I, Svensson B, Arnetz BB & Arnetz JE (2005) Working under pressure: A pilot study of nurse work in a post-operative setting. *The Journal for Advanced Nursing Practice* **19**, 87 - 93.