

WCET Journal

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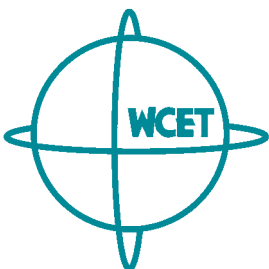
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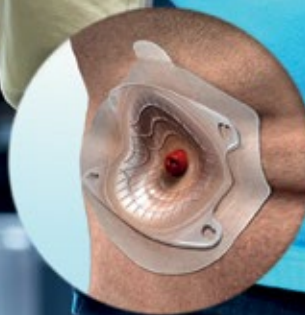
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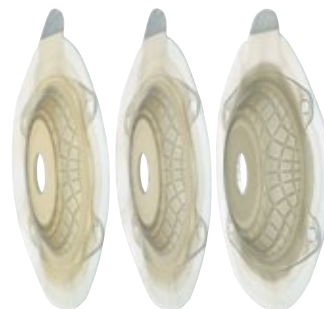
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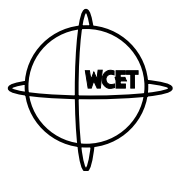
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WCET: a world of expert professional nursing care for people with ostomy, wound or continence needs.

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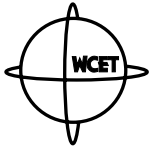
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President's message

The blank slate: A new year of opportunities



Susan Stelton

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Happy New Year! It is 2016 already. People often use the new year as a time to make some resolutions of things they want to do in the year ahead. Some may want to eat more healthy foods, lose weight or become more physically active. Others vow to stop smoking. Some plan to spend more time with family or friends. Some will start new jobs, while others will start retirement from paid work. Some will decide to enjoy taking a vacation or experiencing a new place or activity. Some will take time to learn or teach something new.

Members of WCET come from different countries, cultures and health systems. So, I wonder: What will 2016 be for you? Will you have a new family member? Will you live in a new home? Will you have a new job? Will you teach something? Will you take a course and learn something new? Will you mentor a colleague? Do you plan to do volunteer work for an organisation?

The WCET would love to have more volunteers to help with a variety of activities. Think about joining a committee in an area of interest. Contact the chairpersons of the Education, Norma N Gill, or Publications and Communications committees to see which committee would be best for you to join. If you like to write, write a case review for the *WCET Journal* 'Stories from the bedside' column. What activities have you been involved in that would be interesting to share with fellow WCET members? Consider sending in a brief report about a professional activity in your country for the *Bulletin*. Perhaps you are able to translate a President's message or article for the *WCET Journal* or an article for the *Bulletin* from English to another language. Many WCET members have held special celebrations on WCET Norma N Gill Day™ and have sent photos for the *Bulletin*.

We hope that one of your resolutions will be to renew your WCET membership. Thank you to those who have already renewed. We hope that all who are able to do so will donate

funds to sponsor a membership. By doing so, you will share the WCET with a colleague in need by helping her/him to join the WCET.

In closing, each new year starts as a 'blank slate' on which we write the stories of our lives. What will you write on your slate this year?

主席的话：“一张白纸”- 充满机遇的新一年

新年快乐！这已是2016年了。人们经常把握新年这时间，决定自己在这一年想做的一些事情。有些人可能想要吃更多的健康食品，减肥或做更多的运动。有些人发誓要戒烟。一些则计划花更多的时间与家人或朋友相聚。有些人会开始新的工作，而其他人将开始工作后的退休生活。有些人会决定度假或体验新的地方或活动。有些人会花时间去学习或教授新的东西。

WCET的成员来自不同的国家，文化和卫生系统。所以，我知道：你的2016年将是怎样的呢？你会不会有一个新的家庭成员？你会否搬到一个新的家？你将有一个新的工作吗？你会教些什么呢？你会否报读课程，并学习新的东西？你会指导你的同事？你组织有计划做志愿者工作的一个？

WCET希望能有更多的志愿者来帮助完成各种各样的活动。请考虑加入你感兴趣的委员会。请联系教育委员会，诺玛吉尔基金或刊物和通讯委员会的主席，看看哪委员会将是最适合你的加盟。如果你喜欢写，请投稿WCET杂志的专栏“Stories from the Bedside (临床故事)”。你参与的活动将是与其他WCET成员分享的最佳趣事。你也可考虑将关于贵国ET专业的活动投稿至WCET Bulletin。也许你能将WCET杂志或Bulletin翻译成主席的英文消息，文章或公告到另一种语言。许多WCET成员已为WCET诺玛吉尔日™举行特别的庆祝活动，并发送照片至Bulletin。

我们也希望，您的其中一个决定是更新您的WCET会籍。谢谢那些已经更新的会员。我们希望，所有有能力的也可捐款赞助其他人的会籍。这样，你便能帮助他人加入WCET，并与他/她分享WCET。

最后，每个新的一年都是由“一张白纸”开始的，在这白纸上我们写上我们生活的故事。今年你将会写些什么呢？

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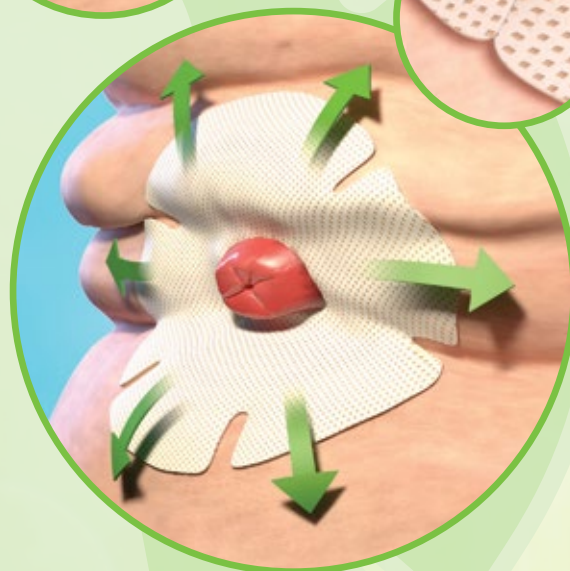
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Editorial

Moving forward



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When this WCET Journal comes out the 2016 Congress will be imminent. If you are unable to attend this year, perhaps you will in 2018. The 2018 Congress will be April 14-18, 2018 in Kuala Lumpur. Your WCET executive board understands that staffing issues and limited conference budgets means you may not be able to attend even when you want to. That's why we try to plan the Congresses' around the world. At the WCET it is our hope that you can still feel connected.

Over the years I have learned about many innovative care and treatment options from our articles. Some care issues are universal and some are geographic specific. The one thing in common is that all of us want to do the best we can for our patients. Similar but maybe different. For example, during the past year I moved from Montana to Hawaii. Montana has long, cold winters and Hawaii is tropical and warm. Bugs, birds and illness is similar but may have different trajectories or seasonal variations. Culturally there are similarities between Native Americans and Native Hawaiians, but there are also many differences as well. Understanding these sensitive concerns and ways of life is critical to good care just as much as the physical treatment is. In both cases access to care may be challenging. Montana is a very large state so

travel, usually by car, to specialized care can be problematic especially in the winter. In Hawaii specialised care many mean travel by air to a different island. These two states are not alone in these issues and problems are found worldwide.

In addition, there are diseases that are different. Tropical mosquito borne illness is not at all common in Montana. In Hawaii there has been an outbreak of dengue fever on the Big Island, where I live. Certainly worldwide there is concern about the Zika virus, including a case on one of the other islands. In all locations there are homeless populations with many medical needs – needs that often go untreated. Recently my friend and I bumped into a woman providing wound care to a homeless gentleman on the downside sea wall. Both were gracious enough to talk to us, although we obviously made them nervous. The “nurse” had very limited actual schooling but saw a need and was filling it. The homeless trusted her and her care was certainly appreciated and well done. She wasn't getting paid. Rather, she said, she felt a calling to help.

Across the world I'm sure she isn't alone. I'm sure many of you provide unpaid care – I know I do. Once in Montana I had an older gentleman actually find my address online and show up at my door for care of a diabetic foot wound (and I lived in a very rural area). I did provide care and a great deal of wound education and got him a clinic referral to a friend of mine. He said he just didn't believe anyone would care. He had very little money and felt most medical people brushed him off rather than talking to him.

So as we come to the 2016 Congress in Cape Town, and plan for the 2018 Congress in Kuala Lumpur, think about sharing your experiences. Let's help each other. The 2018 Congress theme is “Ethnocentric challenges in nursing care”. So let's come together and celebrate our differences, embrace our commonality and help each other learn.



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Development of a national consensus document on wound care clinic standards: Delphi study

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MHS, ETN

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BACKGROUND

Enterostomal therapy nurses (ETNs) have had a long history since Dr Rupert Turnbull and Norma N Gill established the first ETN clinic in 1958¹. However, the history of ETNs in Indonesia only started in 2007, when the World Council of Enterostomal Therapists (WCET) introduced the Indonesian Enterostomal Therapy Nursing Education Programme (ETNEP) school in Wocare Clinic Bogor in 2007. This was a joint venture endorsed by the Australian Association of Stomal Therapy Nursing (AASTN)². In addition, WCET also allocated a number of Norma N Gill Foundation (NNGF) scholarships for Indonesian nurses who attended the ETNEP school³. As a result, there was a rapidly increasing number of ETNs in Indonesia.

The increasing number of ETNs in Indonesia was followed by the increasing number of wound care clinics provided by ETNs. The presence of these clinics is a new service in the health care system in Indonesia, which offers quality of care in wound care services². However, there is a lack of research and information related to the required standards for wound care clinics and thus no way to evaluate wound care clinic performance.

Previous studies have reported a positive impact of wound care clinics, led by ETNs. The advantages of ETNs in the home care setting have been found to include: a reduced frequency of visits, reduced time and cost, increased support for nurses and family, fewer emergency department visits and hospital readmissions, increased wound care education among general nurses, and standardised wound care protocols⁴. ETNs also had higher positive outcomes for both acute and chronic wounds in the home care setting⁵, lower extremity venous ulcers, surgical wounds, urinary incontinence, bowel incontinence, and urinary tract infections in home health care (HHC). Thus, the main aims of this study

were to develop a national consensus document on wound care clinic standards in Indonesia.

METHODS

We used the Delphi technique to develop a standard for wound care clinics. The Delphi technique is a multi-stage survey to achieve a consensus document on an important issue⁶. In the wound care arena, the Delphi technique has been widely used to develop consensus principles in wound care research⁷, develop specific recommendations for wound care problems⁷, develop standardised wound documentation⁸, and identify nursing competency in wound care⁹. In addition, the Delphi technique has been introduced in Indonesia to develop national nursing core competences¹⁰.

EXPERT PANEL

A purposive sampling technique was used for expert clinician recruitment. First, expert panel criteria was defined as: a person who had graduated from an ETNEP school and has at least two years' experience. Two years was considered as adequate experience in a wound care clinic to be considered an expert. Currently, there was no international consensus related to the number of expert panellists needed for the Delphi technique¹¹. For the current study, we invited 26 Indonesian ETNs, which included wound care clinicians and wound care educators from various wound care settings. This expert panel was representative of various wound care settings in Indonesia.

Candidates for the expert panel were sent an expression of interest (EoI) letter by email or personal Facebook messenger. EoI were sent two times and two weeks before the first Delphi round was started. Expert panel candidates who did not return their EoI were considered as not wishing to participate. Willingness to participate in this study by returning EoI implied that an expert member panel had given informed consent.

DELPHI PROCESS

The e-Delphi technique was used for review⁶. Since there were various backgrounds, it was difficult to reach 100% agreement among expert panellists¹¹. Therefore, there were various cut-off points used to determine agreement¹¹. The agreement of 70% among the expert panel members was considered adequate⁶. In this study, we used a cut-off point of 70% agreement in e-Delphi round II to increase the number of potential standards and 80% to increase consistency of agreement in e-E-Delphi round III.

Table 1: Expert panellists

No	Name and affiliations
1.	H Muhammad Yusuf, S.Kep, Ns, ETN Wound Care Consultant, Alvaro Care Clinic, Makassar
2.	Hardian, S.Kep, Ns, ETN President Indonesian WOC Nurse Association (in WOCNA), Jakarta
3.	Ani Maryani, M.Kep, Ners, Sp.KMB-Onk, ETN Wound-Stoma Consultant and Clinician, Jakarta
4.	Anik Maryunani, S.Kep, Ners, ETN Wound Care Consultant, Hocare Afiya, Jakarta
5.	Arum Ratna Pratiwi, S.Kep, Ns, ETN Wound Care Coordinator, Siloam Hospital, Surabaya.
6.	Endang Saptorini, S.Kep, ETN Wound Care Coordinator, Jakarta
7.	Irma P Arisanty, S.Kep, Ns, ETN WOC Nurse, Moist Clinic, Jakarta
8.	Alimuddin, S.Kep, Ners, ETN Wound Care Consultant, ETN Centre Indonesia, Makassar
9.	Fitriani Amien, S.Kep, Ners, ETN Wound Care Consultant, Wahidin Sudirohusodo Hospital, Makassar
10.	Hamka, S.Kep, Ners, ETN CEO Nature Care Indonesia (NCI) Centre, Samarinda
11.	Haryanto, MSN, ETN Wound Care Consultant, Kitamura Clinic, Pontianak
12.	Ichsan Budiharto, S.Kep, Ns, M.Kep, ETN Wound Care Consultant, RSUD Dr Soedarso, Pontianak
13.	Muhammad Aminuddin, S.Kep, ETN, MSc Wound Care Educator, AKPER Pemprov Kalimantan Timur, Samarinda
14.	Dadang Suharto, S.Kep, ETN Wound Care Nurse, RUMAT, Jakarta

The e-Delphi process consisted of three rounds. The goal of e-Delphi round I was to ascertain a generalised idea of standards among the expert panel members. This was a qualitative process which gave each expert on the panel a chance to give ideas about the standards independently via a qualitative process. Each expert panel member was asked an open-ended question: What do you think are the important ideas for wound care clinic standards?

The goal of e-Delphi round II was to rate the acceptability of standards by using a Likert scale (very important, important, neither, not important, and strongly not important). Inability to reach agreement $\geq 70\%$ was excluded in e-Delphi round III. The goal of e-Delphi round III was to reach agreement on

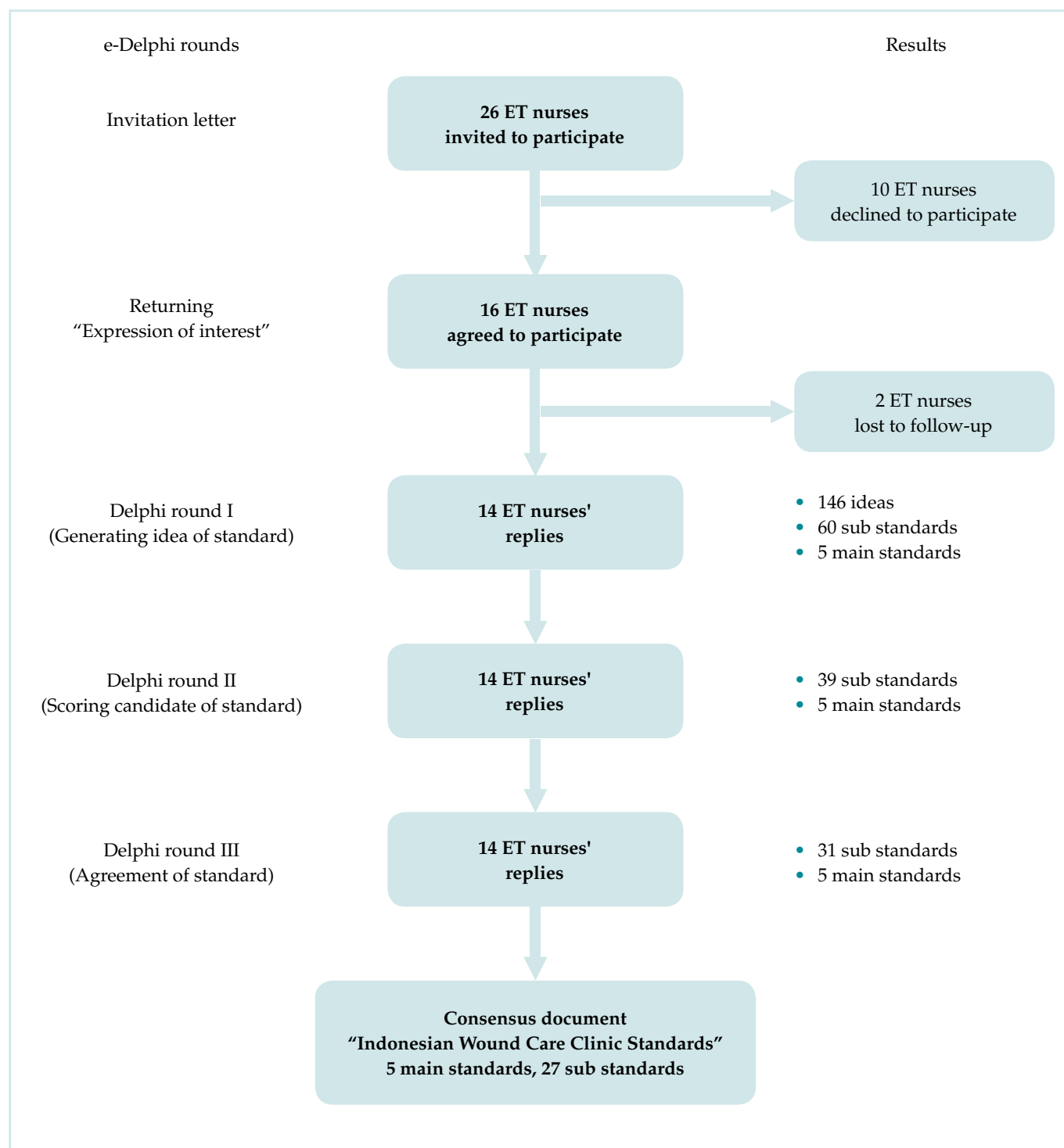
the standards. Thus, all of the potential standards in e-Delphi round II were returned to the expert panel members to decide whether they agreed or not. When there was agreement of $\geq 80\%$, the standards became part of the consensus document.

ANALYSIS

All of the data were inputted in spreadsheet (Microsoft Excel 2010) as a master table for cleaning and to review its accuracy. Missing data were handled by using the group mean. In e-Delphi round I, we used the modified content analysis approach to determine basic ideas related to the standards⁶. Determination of sub standards and main standards of the potential standards was performed by one investigator.



Figure 1: Flow chart of e-Delphi rounds



These processes were evaluated for the intraclass correlation coefficient (ICC). In e-Delphi round II, 70% cumulative index agreement was used as cut-off points and 80% for round III. Data were displayed in frequency (n) and percentage (%). All data were analysed using SPSS 16.0 for Windows (SPSS Inc, Chicago, IL, USA).

RESULTS

We randomly invited 26 Indonesian ETNs in combined eastern and western Indonesia and hospital-based or home care-based clinics to participate. Initially 16 ETNs agreed to participate as expert panellists as confirmed by returning their EoI letter. There were 14 ETNs who participated in

all e-Delphi rounds (response rate 53.8%). Expert panel members' demographics were 57.1% male, wound care clinic home care-based 50%, undergraduate nursing 71.4% and master graduated 28.6%. Most of the expert panel (57.1%) were located in western Indonesia and 42.9% in eastern Indonesia. All of the expert panel members were certified as an ETN by WCETN for more than three years (Table 1).

e-Delphi round I: Generating idea of standard

The aim of e-Delphi round I was to collect qualitative ideas related to candidate standards of wound care clinics. There were 14 questionnaires returned from e-Delphi round I from 16 expert panels (response rate 87.5%). This resulted in 146 candidate standards. By using a content analysis process, we generalised these candidate standards into sub-main candidate standards.

Generalisation of candidate standards was conducted in two phases. First, generalisation of candidate standards into sub-main candidate standards on two different occasions by one investigator and then evaluation of the consistency with ICC. In this phase ICC was satisfied at 0.958 (95% CI: 0.941–0.970). There were 146 ideas collapsed into 60 sub standards, then categorised into main standards based on similarity of scope. By using content analysis, we generated five main standards which resulted in: standard of documentation; standard of facilities; standard of wound care; standard of service; and standard of professional performance. The ICC of this process was reach 0.942 (95% CI: 0.919–0.958) (Figure 1).

e-Delphi round II: Scoring idea of standard

There were 14 participants who returned forms in e-Delphi round II (response rate 100%). At this stage, there were eight sub standards that failed to reach 70% agreement, which were: under treatment letter (28.6%); patients' satisfaction form (57.1%); waiting room (57.1%); consultation room (64.3%); furniture in clinic (57.1%); display/poster (57.1%); corporate social responsibility (64.3%); and tariff (57.1%). These sub-main candidate standards were excluded in e-Delphi round III due to failure to reach agreement (Table 2).

e-Delphi round III: Agreement of standard

e-Delphi round III was conducted one week after completion of e-Delphi round II. The main purpose of e-Delphi round III was to determine agreement among potential standards. There were 14 participants who returned e-Delphi round III form (response rate 100%). To increase our confidence in this phase, we set up 80% cumulative percentage agreement as the cut-off point. At this stage, the following failed to reach 80% agreement: establish a wound journal (64.3%); physical assessment (71.4%); nutrition support (71.4%); and customer services (71.4%). In conclusion, reviewers reached agreement of national consensus on wound care clinic standards which consisted of five main standards: standard of documentation; standard of facility; standard of wound care; standard of

services; and standard of professional performance, which included 27 sub-main standards (Table 3).

DISCUSSION

As mentioned in the background section, there were increasing wound care clinics led by ETNs in Indonesia, both hospital-based or home care-based settings, and which lacked wound care clinic standards. Thus, this became the first nationwide study to develop a national consensus document on wound care clinic standards. This consensus document provided essentials findings to fill the missing gap in wound care clinics.

The diversity of expert panel members from various clinical settings and wound care experiences made these panellists truly representative of Indonesia. The current study demonstrated agreement between panellists to create a consensus document for wound care clinic standards, which consisted of 5 main standards and 27 sub-main standards. To follow is a discussion concerning the 5 main standards.

Standard of documentation

This study confirmed the importance of documentation in the wound care clinic, including the following sub standards: registration book; informed consent form; standard operational procedure (SOP); and referral form. Similar to a previous study, standardisation of documentation was an important aspect in wound care clinics⁸. The current study also indicated that the panellists realised the importance of an informed consent document which provided legal legitimacy for ETNs' practice. In addition, since the consensus document agreed on implementing SOPs, it will become a guideline for wound care nurses to avoid ineffective interventions and make sure intervention is performed effectively. In case wound care clinics are unable to provide further diagnosis or treatment, it is strongly recommended to refer patients to a hospital or other clinic. In general, implementation of standards of documentation will increase wound care clinics' accountability.

Standard of facility

The current study also confirmed the importance of a separate wound care room. Although this study does not specifically address a wound care room in detail, the wound care room at least needs to be convenient and maintain privacy for patients during wound care treatment. One study proposed 3-6 rooms for 14-15 half-day seasons¹² or at least 7 rooms for 40 daily patients¹³. Our experiences have found that it takes at least one hour for the first admission and 30–50 minutes for consecutive treatments. Thus, one bed can be used for 8 patients within one shift. Ideally a wound care clinic should establish both inpatient and outpatient services¹³. However, the focus of the standard related to an outpatient-based wound clinic.



Table 2: Scoring of candidates wound care clinic standard at e-Delphi round 2

Candidate of standards	Likert scale						Cumulative percentage*					
	Strongly important	Important	Neither agree nor disagree	Not important	Strongly unimportant							
Main standards	Sub standards	n	(%)	n	(%)	n	(%)					
Standard of document	Registration book	6	(42.9)	5	(35.7)	2	(14.3)	1	(7.1)	0	(0)	(78.6)
	Informed consent form	11	(78.6)	2	(14.3)	1	(7.1)	0	(0)	0	(0)	(92.9)
	Under treatment letter	3	(21.4)	1	(7.1)	8	(57.1)	1	(7.1)	1	(7.1)	(28.6)
	Standard operational procedure (SOP)	10	(71.4)	2	(14.3)	2	(14.3)	0	(0)	0	(0)	(85.7)
	Referral form	1	(7.1)	9	(64.3)	3	(21.4)	1	(7.1)	0	(0)	(71.4)
	Patients' satisfaction form	3	(21.4)	5	(35.7)	4	(28.6)	2	(14.3)	0	(0)	(57.1)
	Wound care room	10	(71.4)	2	(14.3)	2	(14.3)	0	(0)	0	(0)	(85.7)
	Waiting room	5	(35.7)	3	(21.4)	3	(21.4)	3	(21.4)	0	(0)	(57.1)
	Consultation room	5	(35.7)	4	(28.6)	4	(28.6)	1	(7.1)	0	(0)	(64.3)
	Instrumentation	9	(64.3)	3	(21.4)	2	(14.3)	0	(0)	0	(0)	(85.7)
Standard of facility	Sterilisation	11	(78.6)	1	(7.1)	2	(14.3)	0	(0)	0	(0)	(85.7)
	Biohazard waste	11	(78.6)	1	(7.1)	2	(14.3)	0	(0)	0	(0)	(85.7)
	Furniture in clinic	4	(28.6)	4	(28.6)	5	(35.7)	1	(7.1)	0	(0)	(57.1)
	Display/poster	1	(7.1)	7	(50.0)	5	(35.7)	1	(7.1)	0	(0)	(57.1)
	Wound journal	1	(7.1)	9	(64.3)	4	(28.6)	0	(0)	0	(0)	(71.4)
	Wound assessment form	12	(85.7)	1	(7.1)	1	(7.1)	0	(0)	0	(0)	(92.9)
	Wound diagnosis form	9	(64.3)	3	(21.4)	1	(7.1)	1	(7.1)	0	(0)	(85.7)
	Wound care form	10	(71.4)	2	(14.3)	2	(14.3)	0	(0)	0	(0)	(85.7)
	Wound dressing algorithm	8	(57.1)	4	(28.6)	2	(14.3)	0	(0)	0	(0)	(85.7)
	Wound care evaluation	8	(57.1)	5	(35.7)	1	(7.1)	0	(0)	0	(0)	(92.9)
Standard of wound care	Physical assessment	6	(42.9)	4	(28.6)	3	(21.4)	1	(7.1)	0	(0)	(71.4)
	Nutrition support	4	(28.6)	7	(50.0)	3	(21.4)	0	(0)	0	(0)	(78.6)

Table 2 (continued): Scoring of candidates wound care clinic standard at e-Delphi round 2

Candidate of standards	Likert scale								Cumulative percentage*
	Strongly important	Important	Neither agree nor disagree	Not important	Strongly unimportant	n	(%)	(%)	
Main standards	n	(%)	n	(%)	n	(%)	n	(%)	
Sub standards	n	(%)	n	(%)	n	(%)	n	(%)	
Standard of services									
Service pathways	7	(50.0)	6	(42.9)	1	(7.1)	0	(0)	(92.9)
Psychosocial support	5	(35.7)	6	(42.9)	3	(21.4)	0	(0)	(78.6)
Corporate social responsibility	2	(14.3)	6	(42.9)	5	(35.7)	1	(7.1)	(57.1)
Customer service	3	(21.4)	6	(42.9)	4	(28.6)	1	(7.1)	(92.9)
Infection control	9	(64.3)	4	(28.6)	1	(7.1)	0	(0)	(92.9)
Education media	4	(28.6)	8	(57.1)	2	(14.3)	0	(0)	(85.7)
Supporting diagnostic assessment	2	(14.3)	9	(64.3)	3	(21.4)	0	(0)	(78.6)
Tariff	3	(21.4)	5	(35.7)	5	(35.7)	1	(7.1)	(57.1)
Research	4	(28.6)	8	(57.1)	2	(14.3)	0	(0)	(85.7)
Palliative care	5	(35.7)	7	(50.0)	2	(14.3)	0	(0)	(85.7)
Basic and advanced wound care	6	(42.9)	5	(35.7)	3	(21.4)	0	(0)	(78.6)
Certification	9	(64.3)	4	(28.6)	1	(7.1)	0	(0)	(92.9)
Standard of professional performance									
Competence	11	(78.6)	2	(14.3)	1	(7.1)	0	(0)	(92.9)
Legality	11	(78.6)	2	(14.3)	1	(7.1)	0	(0)	(92.9)
Ethics	11	(78.6)	2	(14.3)	1	(7.1)	0	(0)	(92.9)
Communication	9	(64.3)	3	(21.4)	2	(14.3)	0	(0)	(85.7)
Credentialing	8	(57.1)	5	(35.7)	1	(7.1)	0	(0)	(92.9)

*Cumulative percentage is a cumulative agreement between strongly important and important sub score.

**Candidate standards <70% were excluded in e-Delphi round III.



Table 3: Cumulative percentages agreement wound clinic standards at e-Delphi round III

Main thema	Candidate of standards Sub thema	Disagree		Agree		Cumulative percentage
		n	%	n	%	
Standard of document	Registration book	2	(14.3)	12	(85.7)	(85.7)
	Informed consent form	0	(0)	14	(100)	(100)
	Standard operational procedure (SOP)	0	(0)	14	(100)	(100)
	Referral form	1	(7.1)	13	(92.9)	(92.9)
Standard of facility	Wound care room	1	(7.1)	13	(92.9)	(92.9)
	Instrumentation	1	(7.1)	13	(92.9)	(92.9)
	Sterilisation	1	(7.1)	13	(92.9)	(92.9)
	Biohazard waste	1	(7.1)	13	(92.9)	(92.9)
	Wound journal	5	(35.7)	9	(64.3)	(64.3)
Standard of wound care	Wound assessment form	0	(0)	14	(100)	(100)
	Wound diagnosis form	2	(14.3)	12	(85.7)	(85.7)
	Wound care form	1	(7.1)	13	(92.9)	(92.9)
	Wound dressing algorithm	0	(0)	14	(100)	(100)
	Wound care evaluation	0	(0)	14	(100)	(100)
	Physical assessment	4	(28.6)	10	(71.4)	(71.4)
	Nutrition support	4	(28.6)	10	(71.4)	(71.4)
Standard of services	Service pathways	0	(0)	14	(100)	(100)
	Psychosocial support	2	(14.3)	12	(85.7)	(85.7)
	Customer services	4	(28.6)	10	(71.4)	(71.4)
	Infection control	0	(0)	14	(100)	(100)
	Education media	2	(14.3)	12	(85.7)	(85.7)
	Supporting diagnostic assessment	2	(14.3)	12	(85.7)	(85.7)
	Research	1	(7.1)	13	(92.9)	(92.9)
	Palliative care	1	(7.1)	13	(92.9)	(92.9)
Standard of professional performance	Basic and advanced wound care	1	(7.1)	13	(92.9)	(92.9)
	Certification	0	(0)	14	(100)	(100)
	Competence	0	(0)	14	(100)	(100)
	Legality	1	(7.1)	13	(92.9)	(92.9)
	Ethics	0	(0)	14	(100)	(100)
	Communication	0	(0)	14	(100)	(100)
	Credentialing	0	(0)	14	(100)	(100)

Since wound care clinics in Indonesia mainly see patients with chronic wounds², this consensus document also recommended implementation of standard instrumentation and sterilisation. General precautions should be implemented to prevent cross-contaminations and nosocomial infection within wound care clinics. Panellists also recommended biohazard waste management as a sub standard of the standard of facility. This issue should be discussed with government environmental policy to establish prompt management for biohazard waste.

Standard of wound care

This current consensus document recommends wound assessment, wound diagnosis, wound care, wound dressing and wound evaluation as sub-main standards of wound care. While each wound has different characteristics, wound bed preparation is useful as a general approach which has been in existence for the past 10 years as a standard approach in all wound care¹⁴. All the recommended forms can be split into a standard form which will capture all aspects of the

Table 4: National Consensus Document of Wound Care Clinic Standards

Main standard		Sub standard	
Standard 1	Standard of document	A.	Registration book
		B.	Informed consent form
		C.	Standard operational procedure (SOP)
		D.	Referral form
Standard 2	Standard of facility	A.	Wound care room
		B.	Instrumentation
		C.	Sterilisation
		D.	Biohazard waste
Standard 3	Standard of wound care	A.	Wound assessment form
		B.	Wound diagnosis form
		C.	Wound care form
		D.	Wound dressing algorithm
		E.	Wound care evaluation
Standard 4	Standard of services	A.	Service pathways
		B.	Psychosocial support
		C.	Infection control
		D.	Education media
		E.	Supporting diagnostic assessment
		F.	Research
		G.	Palliative care
		H.	Basic and advanced wound care
Standard 5	Standard of professional performance	A.	Certification
		B.	Competence
		C.	Legality
		D.	Ethics
		E.	Communication
		F.	Credentialing

wound care process. Implementation of standards of wound care will increase the quality of care, and become general communication between ETNs within and between wound care clinics.

Standard of services

Another clinically relevant finding was that the expert panellists agreed to recommend a standard of services. In this study, a standard of services refers to additional services provided by the wound care clinic to support wound care processes. These standards, including services pathways, psychosocial support, infection control, education media, supporting diagnostic media, research, palliative care and basic to advanced wound care. An implication of this finding should encourage ET nurses to provide holistic care and not just focus on wound care solely but also provide services which enhance the healing process.

Standard of professional performance

One of the interesting findings is that of all e-Delphi rounds, standards of professional performance were consistently agreed among panellists. This indicates there was an awareness among panellists on the importance of professional performance. This standard is in agreement with those recommended by Wound Ostomy and Continence Nurses (WOCN) Society¹⁵. Thus, further work is required to establish the clinical concept of certification, competence, legality, ethics, communication and credentialing systems which are acceptable among Indonesian ETNs.

Implications for practice

This consensus document has important implications for nursing practice. A previous study reported that the quality of care was lower in nursing home clinics¹⁶. Hence, this becomes a challenge to increase and maintain nursing home



services. This consensus also will be useful to perform internal and external wound care processes, which can lead to increased quality of care. Finally, this document can be used to make stratification of wound care clinic performance.

Limitations

We note some limitations in this study. First, there was a moderate response rate among expert panellists (53.8%). Thus, external validity should be performed among Indonesian ETNs who lead wound care clinics. Therefore, since members of the expert panel included both home-based and hospital-based care and both clinicians and educators, we feel confident that information can be generalised to all wound care clinic settings. Second, in this consensus document we used the term wound care clinic. In this area there is still ongoing debate related to the term "clinic". In Indonesia the term clinic refers to the physician's practice. Third, some of the sub standards were similar, thus identification of collinearity and correlation among standards will improve this consensus document.

CONCLUSION

The current study established Indonesian national wound care clinic standards. These are: standard of documentation; standard of facility; standard of wound care; standard of services; and standard of professional performance.

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Australian Association of Stomal Therapy Nurses (AASTN)

Mid-East WOCN Chapter

Nursing intervention: Stoma marking



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ABSTRACT

Introduction and objective: *Ostomy patients have increased in Spain during recent years, mainly due to the fact that more temporary ostomies are performed to protect bowel sutures and avoid the serious consequences of a possible dehiscence. It is estimated that 70,000 Spaniards live with an ostomy, which corresponds to over three cases per 1000 adults. A patient scheduled for surgery involving the creation of a stoma must receive specialised care that should start with the preoperative nursing assessment and stoma marking.*

Stoma marking will avoid bad stoma locations and future complications, contributing to a better quality of life. However, the technique must be performed correctly by expert nurses.

To date, no nursing language classification has offered a protocolised definition of how to adequately perform stoma marking. This research study aims to describe a standard operating procedure defined as a "nursing intervention".

Methodology:

The study was carried out in four phases:

- 1. Creation of a working group of expert nurses: the expert panel consisted of a coordinator and 57 ET nurses. These nurses belong to the Coloplast Ostomy Forum (COF) group. They first agreed on the name of the intervention, its definition and the activities involved.*
- 2. Literature review: a literature databases search was made to identify the best available evidence and establish the basis for the nursing intervention. Twenty-five articles were selected.*
- 3. Delphi consultation: Two rounds were made to reach definitive consensus (above 70% of agreement).*
- 4. Clinical validation: the agreed activities were subjected to clinical validation in 226 ostomy patients.*

Results and conclusion: *This study yielded a new nursing intervention called "Stoma marking", comprising a definition and a total of 21 activities.*

The main result of this study is the standardisation of a new nursing intervention that has already received the approval from the Spanish General Nursing Council, becoming part of the Spanish professional nursing practice. Accordingly, the derived activities are included in the civil liability policy that covers all registered nurses in Spain.

We hope that this standard of care could be raise globally making sure that all ostomy patients become marked before going into surgery.



INTRODUCTION

Elimination ostomies (both gastrointestinal and urinary) are needed to manage diseases such as colorectal cancer (in 36% of the cases), inflammatory bowel disease (IBD; 15%), hereditary family polyposis, bowel obstruction, diverticulitis (11%), anorectal trauma, fistulas, bladder cancer (12%), or adjacent organ tumour disease (gynaecological cancer)¹.

In children, ostomies are indicated in the case of congenital anomalies, Hirschsprung's disease or necrotising enterocolitis, among other disorders². According to the Spanish Society of Medical Oncology, colorectal cancer is the second most common malignancy in women and the third in males, followed by bladder cancer³. Ostomies are effective in the management of diseases of this kind, but involve consequences that have a strong impact upon patient quality of life. They affect patient continence control, self-image and professional and social life⁴.

There are three types of elimination ostomies:

- Ileostomy: opening of the small bowel (ileum) to the exterior.
- Colostomy: opening of the large bowel (colon) to the exterior.
- Urostomy: opening of the ureters to the intestine or skin surface.

Permanent stomas remain necessary in certain cases, such as when bladder resection or an abdominoperineal amputation (APA) is performed (in 20–25% of all rectal cancer resections)⁵⁻⁷.

Temporary stomas are performed more frequently every day. They are performed to exteriorise stools as a provisional solution to a problem, or to protect bowel sutures and avoid the serious consequences of a possible dehiscence (in 75–80% of the cases involving so-called anterior rectal resection with sphincter preservation)⁸. In this case, the reconstruction of bowel transit is possible.

The duration of a temporary stoma depends on the disease involved, the clinical evolution, the need for coadjuvant treatment and the patient characteristics. Closure can be performed early, even during the same surgical admission^{9,10}. According to a multicentre study published in 2001, there were an estimated 35,000–38,000 people with an ostomy in Spain. This number has definitely increased since then, as more protective temporary ostomies are now performed. In fact, analysing the statistics, it can be concluded that 1.5 out of every 1,000 Spaniards live with an ostomy; this represents a total of approximately 70,000 people throughout the country. The incidence of ostomies therefore would correspond to over three cases per 1,000 adult Spaniards. Other Western countries, in turn, report figures between two and four ostomies per 1,000 adults¹¹. In sum, there are many ostomy patients who need specialised care that should start before the surgery with proper advice and stoma marking.

RATIONALE AND OBJECTIVE

A patient scheduled for surgery involving the creation of a stoma must receive nursing care including:

- Nursing assessment
- Planning of care
- Stoma marking.

To date, tools and instruments for most of the above-mentioned aspects in the context of the nursing process have been available. However, no nursing-language classification has offered a protocolised definition of how to adequately perform stoma marking. For this reason, over a period of three years, the Spanish Coloplast Ostomy Forum (COF) group, thanks to a collaboration agreement between the Spanish General Nursing Council and the company Coloplast, SA, developed a research project with the purpose of describing a new nursing intervention called "Stoma marking". The main objective of stoma marking is to locate the ideal position for the future stoma and thus avoid future complications.

In routine clinical practice, the stoma care nurse (also called the stomatherapist) is the person who assess the patient before surgery, with the purpose of correctly placing and marking the stoma. This technique was incorporated in nursing practice following the introduction of the stomatherapist as the nurse specialised in the care of ostomy patients in a number of countries including the United States in 1959¹². On 14 June 2013, the Mississippi State Board of Nursing, through the Nursing Practice Committee, established that stoma marking falls within the scope of stomatherapy nursing practice, providing that the following conditions are met¹³:

1. The nurse is trained and competent in performing the procedure.
2. The nurse is a certified stomatherapist (maintaining his/her professional competence through re-certification processes).
3. Professional practice in performing the procedure must comply with the corresponding standards.
4. The resources needed to correctly perform stoma marking must be available.

Thus, stomatherapy nurses are involved in patient assessment from the preoperative phase. Such assessment includes the evaluation of patient body morphology, level of activity, type of surgical procedure, age, vision, manual dexterity, and full information from the patient at the time of establishing the stoma site. This assessment is made with the purpose of guaranteeing, as best as possible, that the surgical team has a guide for the best stoma location in each patient. This research study was seen to be necessary in order to describe a standard operating procedure, defined as a "nursing intervention".

Keyword (or combination of words)	Database name	Limits use (if applicable)	Numbers of item (search result in the database)	Numbers of preselected items (by name...)	Articles finally selected to justify intervention

Figure 1

METHODOLOGY

The study was carried out in four phases:

1. Creation of a working group of expert nurses

A working group comprising Spanish stomatherapists (COF) was created to carry out this study. Likewise, technical counselling was provided by nurses known to be experts in research, with extensive experience in ostomy care. Therefore, the expert panel consisted of a coordinator and 57 experts. The expert panel, as a discussion group, performed an analysis of the proposal in order to define the new nursing intervention. They agreed on the name of the intervention, its definition and the activities involved.

2. Literature review

As a second step, they conducted a literature search to identify the best scientific evidence and those published studies that could form the basis of the new intervention. In order to unify and facilitate data collection, a document template was created, incorporating the search strategies (search report) and literature justifications (Figure 1). Two teams were created within the expert panel, which conducted the literature search over a six-month period.

Figure 2

3. To Know the cultural and religious orientation of the patient.

Do you think this activity is necessary?

TA	A	I	D	TD
1	2	3	4	5

Scale: TA: Totally Agree, A: Agree, I: Indifferent, D: Disagree, TD: Totally disagree

Do you agree with the wording of the activity?

TA	A	I	D	TD
1	2	3	4	5

Suggest another wording if appropriate:

The Cuiden, PubMed-Medline, ENFISPO, Cochrane, Embase, Cuidatge, Index enfermería, Lilacs, Cancerlit and Cinahl databases were consulted. The search keywords (in English and Spanish) were “ubicación”, “demarcación”, “localización”, “marcaje”, “piel”, “estoma”, “stoma site”, “ostomy”, “stoma care”, “religious”, “nursing care”, “stoma marking”, “colorectal surgery”, “quality of life”, “cuidados enfermería”, “intimidación”, “religión”, “paciente”, “ostomía”. The Boolean operators “y”, “o”, “no”, “and”, “or” and “not” were used. The document/article screening criterion was the incorporation of an activity supported by scientific evidence.

3. Delphi consultation

In order to establish the designation and/or content of each part of the intervention (name, definition and series of activities), a Delphi method consultation was made within the expert panel. The experts were asked whether they considered the activity to be necessary and whether they agreed with the way it was described. A Likert-type scale of five possibilities was used for each question^{14,15}: totally agree (TA), agree (A), indifferent (I), disagree (D), totally disagree (TD). Lastly, the experts were offered the possibility of adding new aspects not included in the list (Figure 2).

The responses of the experts were processed, assigning scores as follows: TA+A, I, D+TD (Figure 3).

Those responses of the experts that failed to reach a positive agreement (TA+A) consensus rate above 70% were reconsidered a second time, along with the new proposals suggested. After analysing the results obtained, the name, definition and series of activities conforming the new nursing intervention were proposed for empirical validation (clinical practice). The duration of this Delphi consultation made twice was nine months.

4. Clinical validation process

This stage of the process was designed for the clinical validation of the activity proposals resulted in the Delphi consultation. This way each professional completed a template for each patient that was marked for a future stoma. The template included a checklist with all the activities he



TA	A	I	D	TD
>70%				

Figure 3

or she performed when carrying out the procedure (Figure 4). The intervention was considered to be valid if it was performed in over 70% of the patients.

RESULTS

Literature review

A total of 1,235 articles and/or documents were located. Of these, 115 were reviewed, and 25 publications that met the previously established screening criteria were finally selected.

Figure 4

NEW NURSING INTERVENTION

Clinical validation

Intervention name

- Stoma Marking
- Preoperative marking of the location of the stoma

Definition of the intervention

- Location and preoperative stoma making of the most appropriate abdomen area for surgical opening of a stoma

Activities:

ACTIVITY	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5
	Consultation room	Consultation room	Consultation room	Consultation room	Consultation room
	Hospital ward	Hospital ward	Hospital ward	Hospital ward	Hospital ward
	Other: _____	Other: _____	Other: _____	Other: _____	Other: _____
1. <i>Identify and introduce yourself to the patient or caregiver.</i>					
2. <i>Inform the patient or caregiver of the technique to be carried out and its purpose.</i>					
3. <i>Request patient authorization to mark the stoma.</i>					
4. <i>Request patient collaboration in performing the technique.</i>					
5. <i>Preserve patient intimacy during the intervention.</i>					
6. ...					

Working group (discussion group)

Five names for the intervention were proposed, along with three definitions and 19 activities.

Delphi consultation

Following the two consultation rounds, consensus was reached on two names, two definitions and 24 activities.

Empirical validation

A total of 41 nurses and 226 patients participated in the study. Sixty-six per cent of the patients were assisted in the wards, 28% in the consulting room, and 6% elsewhere. The results obtained for each of the activities are shown in Table 1.

Nineteen of the activities proposed in the first Delphi consultation were considered to have been empirically validated, and two more were added in the second Delphi

Figure 5

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CONSEJO GENERAL

La Comisión Ejecutiva del Consejo General de Enfermería, tras estudio favorable realizado por el Instituto Superior de Investigación para la Calidad Sanitaria (ISICS), ha aprobado, en sesión celebrada el 18 de diciembre de 2014, el documento presentado por el Grupo Coloplast Ostomy Forum, denominado

Intervención enfermera - Marcaje del estoma

Y consecuentemente se expide respecto del mencionado documento, a los efectos oportunos, el presente

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EL PRESIDENTE,



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Table 1

	N (valid)	% performed
Activity 1	225	96.5%
Activity 2	225	98.7%
Activity 3	226	36.3%
Activity 4	226	100%
Activity 5	226	98.2%
Activity 6	226	58.8%
Activity 7	226	99.6%
Activity 8	226	83.2%
Activity 9	226	99.1%
Activity 10	226	99.6%
Activity 11	226	88.9%
Activity 12	226	71.7%
Activity 13	226	91.6%
Activity 14	226	93.4%
Activity 15	215	94.2%
Activity 16	215	93.4%
Activity 17	214	80.1%
Activity 18	215	60.2%
Activity 19	215	79.2%
Activity 20	215	92%
Activity 21	215	85%
Activity 22	215	81.4%
Activity 23	215	85.8%
Activity 24	210	86.7%

round, being performed in 81% and 84% of the total patients, respectively. Three of the initially proposed activities were eliminated after the empirical validation as they were performed in less than 70% of the patients. The new stoma marking nursing intervention, therefore, comprises 21 activities.

CONCLUSION

In conclusion, our research study proposes a new nursing intervention called: "Stoma marking". The intervention is defined as follows: "Preoperative localisation and marking of the abdominal zone best suited for a surgical open of a stoma in order to avoid device adaptation problems".

The activities included in the intervention are as follows:

1. Identify and introduce yourself to the patient and caregiver.
2. Inform the patient and caregiver of the technique to be carried out and its purpose.
3. Request patient authorisation to mark the stoma.
4. Request patient collaboration in performing the technique.
5. Preserve patient intimacy during the intervention.

6. Determine the cultural and religious orientation of the patient.
7. Identify special needs: clothing, prostheses, and so on.
8. Determine variations in patient body weight during the last year.
9. Identify skin allergies and/or skin disorders.
10. Identify alterations in skin integrity in the abdominal zone.
11. Reinforce the information provided with an anatomical-physiological diagram, where applicable.
12. Prepare the necessary material (permanent marker, ostomy bags, and so on).
13. Identify patient limitations: vision, manual dexterity, manageability, hearing, and so on.
14. Perform the necessary measurements on the abdomen of the patient to establish the possible stoma site, placing the patient in different positions (sitting, dorsal decubitus, standing, bending) and identifying the morphological changes that occur in those positions (Figures 6, 7 and 8).
15. Select a suitable point for the localisation of the stoma, avoiding inappropriate zones (folds, scars, bone protrusions, pendular breasts, other prostheses, and so on).
16. Adhere the ostomy bag to the selected point and check its performance, instructing the patient to adopt the different positions and movements of his or her daily life activities.
17. Reposition the bag if a new point must be selected.
18. Remove the ostomy bag and mark the definitive site of the future stoma with a permanent, waterproof marker.
19. If possible, mark the stoma in a position visible to the patient, in order to facilitate self-care.
20. Assess patient understanding and knowledge of the information received.
21. Document the activities carried out in the patient clinical history.

DISCUSSION

As recommended in other studies, the stomatherapist should be seen as playing a key role from the preoperative stage in advising the patient and selecting the stoma site, with a view to improving the patient's future quality of life¹⁶.

Many studies have found that patients with a stoma location marked by a trained clinician before the operation experience fewer complications. Correct stoma positioning can reduce complications related to device leakages, which result in patient insecurity, anxiety, social isolation and dermatitis produced by the effluent contact with the skin. Likewise, preoperative stoma marking may influence patient capacity

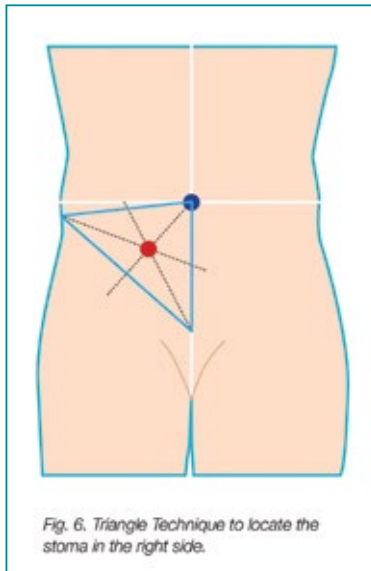


Fig. 6. Triangle Technique to locate the stoma in the right side.

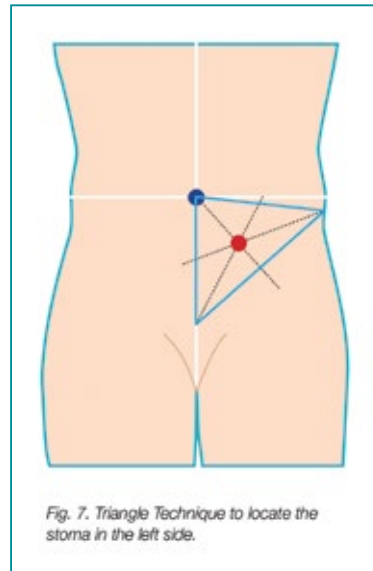


Fig. 7. Triangle Technique to locate the stoma in the left side.

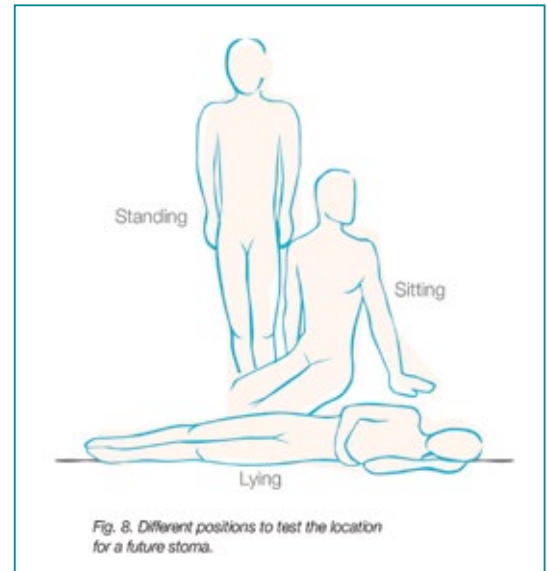


Fig. 8. Different positions to test the location for a future stoma.

to adapt to the stoma and be more independent, having an impact on health care costs¹⁷⁻²¹.

Most scientific societies, including the American Society of Colon and Rectal Surgeons (ASCRS), the Wound Ostomy and Continence Nurses Society (WOCN) and the Association of Coloproctology of Great Britain and Ireland (ACPGBI), recommend that all patients scheduled for ostomy should undergo stoma site marking before the operation, performed by a qualified and experienced professional — preferably a stomatherapist²²⁻²⁴.

The analysis and description of a new nursing intervention can contribute to generate elements allowing ordering of the nursing profession. In this regard, the Spanish General Nursing Council, as the nursing regulatory body in Spain representing 270,000 nurses currently in the country, through its Executive Commission, has favourably assessed the new “Stoma marking” intervention, which means it will form part of professional nursing practice in this country (Figure 5).

Incorporating the nursing intervention as part of Spanish professional nursing practice implies the corresponding civil liabilities. Accordingly, the derived activities are included in the civil liability policy that covers all registered nurses in Spain.

Protocolised professional practice affords professional autonomy, legal security, and conforms a crucial element of guarantee and safety for patients and professionals.

We hope that this standard of care could be raised globally so it would be applied in all countries. This way we would make sure that all ostomy patients are marked by an expert nurse before the surgery, preparing for a good adaptation to the ostomy bag and, therefore, a good quality of life. We propose that the stomatherapist would implement programs to train other nurses in their hospitals so they become confident in

performing the technique and can do it when needed, making sure that all patients are marked before entering the operating room.

AUTHORS' DECLARATIONS

The authors declare that they have no conflicts of interest.

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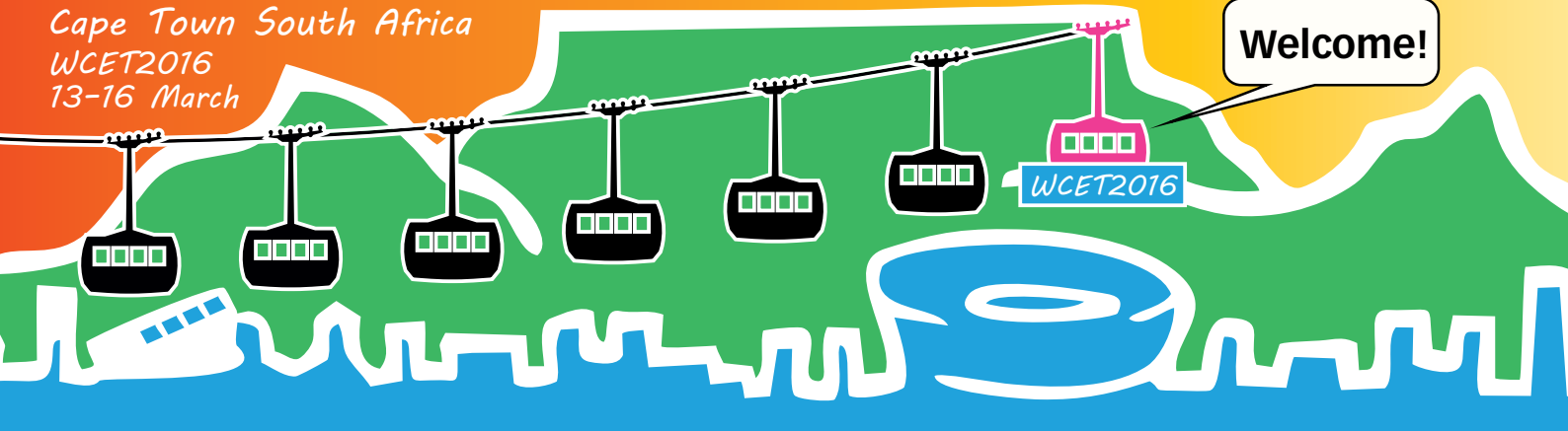
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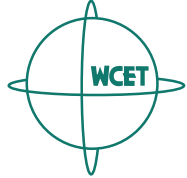


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Dear WCET colleagues and friends

Here we are! WCET 2016 Congress in Cape Town! It is unbelievable that we have reached the end of more than 2 years of hard, but wonderful work, to prepare for WCET2016. We have communicated with you through the WCET Journal and other medical journals, via e-mail, on Facebook and updated you with information on the congress as well as the city of Cape Town, our country South Africa and our people. Now we say welcome AND thank you. Please read the piece on "ubuntu" and also the reasoning behind our WCET2016 logo. This is our message to you to take further to WCET2018.

To the WCET2018 organisers: We wish you all the best. Enjoy the ride.... it has its ups and downs!

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Ubuntu- “I am what I am because of who we all are”

“Ubuntu is a philosophy that considers the success of the group above that of the individual.” Stephen Lundin- Ubuntu!

The word ‘Ubuntu’ originates from one of the Bantu dialects of Africa, and is pronounced as uu-Boon-too. It is a traditional African philosophy that offers us an understanding of ourselves in relation with the world. According to Ubuntu, there exists a common bond between us all and it is through this bond, through our interaction with our fellow human beings, that we discover our own human qualities. Or as the Zulus would say, “Umuntu Ngumuntu Ngabantu”, which means that a person is a person through other persons.

We affirm our humanity when we acknowledge that of others. The South African Nobel Laureate Archbishop Desmond Tutu describes Ubuntu as: ‘It is the essence of being human. It speaks of the fact that my humanity is caught up and is inextricably bound up in yours. I am human because I belong. It speaks about wholeness, it speaks about compassion. (reference 1)

We would like to say thank you to all nurses, doctors and therapists. We salute you for the work you do. We want to say thank you to our patients, who shares their most vulnerable moments with us.

We as the local organising committee of WCET2016 would like to thank every delegate for attending the congress. We know that you will enjoy our city and our people... and when you leave... you will leave a small piece of your heart behind.

Welcome to Cape Town, Welcome to South Africa, Welcome to WCET2016.



Embrace the circle of life

The congress logo was the departure point that was used to compile an exciting scientific, academic and social programme for WCET 2016. We embrace life, we embrace people, we embrace our profession!



The logo shows an embrace between humans, patient and nurse, as well as an abstract view of the body. The circle logo express 'the world / planet' (world council/congress) / and all nations working together to achieve optimum quality of life for our patients.

The fonts used are tubular and organic to bring home the concept of surgery, giving the impressing of human anatomy which includes tubes, bowel, wounds and organs. 'Rounded, creative mathematical precision and know-how through solid foundations showing uniqueness, yet similarities'.

The letters are round, but still shows creativity. Surgeons are creative geniuses and well-rounded people and forms part of a well-rounded enterostomal family. The ends of the letters are sharply cut (which indicates the mathematical precision with which surgeons and therapists/nurses have to work), with the necessary knowhow and solid foundations not just from learning from books but also from experts/masters in the field and from each other, yet each person brings a unique talent and quality to the enterostomal family. So too is each surgeon/patient/nurse/case unique in its own way but yet similar with a common goal and knowledge of the important work they are doing. 'Embrace the circle of life' is a call for action and participation: to be part of the 'whole', and to collaborate in bringing health and life to patients. The circle indicates a 'hole', and the 'whole', within the framework of the enterostomal family: a dedicated 'family' working together to bring health to all patients with wounds, ostomies, and continence issues.

There has been no better time in history to understand the importance of working together than the present. We hope that you all leave WCET2016 understanding your part in this collective effort to bring quality into this 'circle of life'.

*1 <https://goo.gl/C1BGZT>

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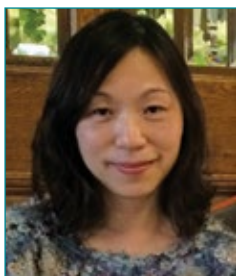
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Quality of life, anxiety and depression levels of Chinese stoma patients in Hong Kong



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INTRODUCTION

Colorectal cancer is a major health problem in most developed countries. According to the data collected by the Hong Kong Cancer Registry¹, colorectal cancer was the second most common disease (16.4% of total cancer in Hong Kong) with 14.3% mortality rate. Surgical treatment of colorectal cancer often necessitates the formation of a cutaneous enterostomy. Stoma is the terminology given to an opening of the body surface where part of the bowel is brought to the exterior². In fact, it is one of the most

distressing conditions in relation to a patient's quality of life (QoL), anxiety and depression levels. The purpose of this study is to compare QoL, anxiety and depression levels of new Chinese stoma patients in Hong Kong.

Gotay *et al.*³ defined that QoL may represent an individual's ability to carry out daily living activities, as well as satisfaction with personal performance, and maintaining the balance between disease control and any adverse effects of treatment. The formation of a stoma is one of the procedures for bowel disease^{4,5}. It affects patients' ability to manage their stomas independently, and also increases their anxiety, feeling of uselessness and may be followed by depression. The surgical creation of a stoma is a life-altering condition and source of stress, which induces both physical and psychological trauma to a person in facing physical and psychological problems, especially its induced, uncontrolled defecation and altered body image^{2,6-8}.

Compared with non-stoma patients, stoma patients were more confined and displayed a loss of interest in social activities, such as visiting friends, going to cinemas and travelling⁹⁻¹⁴. Stoma patients induced higher levels of psychological distress than non-stoma patients. They perceived a sense of uselessness and dependence. Therefore, early recognition of stoma patients' level of distress and the provision of appropriate interaction may help them regain a better QoL^{4,9,15}.

For Chinese colostomates, Zhing & Li¹⁶ found that improvements in QoL among 33 respondents with a permanent stoma were found between one month and three months post-operation. However, there was a limitation on reliability due to its small sample size (n=33) and no comparison before stoma surgery. Li, Rew and Hwang¹⁷ only found strong adjustments were reported for those Tai Wan Chinese colostomy patients with extended family relationships. In view of the overwhelming evidence in the literature that stoma patients in Western countries have a poorer QoL than non-stoma patients, the aim of this study is to evaluate the reliability of these findings in Hong Kong Chinese stoma patients.

OBJECTIVES

Kuechenhoff, Wirsching and Druner¹⁴ pointed out that stoma patients appear to suffer from depression to a higher degree than non-stoma patients. The challenge in QoL, anxiety and depression level in patients with a stoma is the major concern in various studies of Western countries, but there were no

such studies performed in the Chinese stoma patients. It is crucial to generate new information regarding the QoL, anxiety and depression levels for stoma patients in Hong Kong in order to improve the service quality of stoma care for ostomates. Therefore, the exploration of QoL, and levels of anxiety and depression of Chinese stoma patients is worthwhile with the following objectives:

1. To investigate the relationship between stoma and QoL.
2. To investigate the influence of the stoma on the levels of anxiety and depression.

METHODOLOGY

Study design

A single subject design was used to compare the outcome of QoL, anxiety, depression and stress levels of Chinese stoma patients in Hong Kong. The survey was conducted for new ostomates in two stoma clinics in the Hong Kong region during nurse-led clinic sessions. Two enterostomal therapists (ETs) performed dual roles as clinical stoma consultants and researcher. Eligible patients were invited to participate in the study and they were reassured their refusal would not jeopardise their nursing care and treatment in the hospital. The same set of questionnaires were collected from new Chinese ostomates at the designated time slots of pre-operation, one month post-operation and three months post-operation. These measured quality of life for physical and mental health status in relation to eight health concepts: physical functioning; role limitations due to physical health; bodily pain; general health perceptions; vitality; social functioning; role limitations due to emotional health; and general mental health.

Recruitment and selection of participants

Due to the limitations of survey setting and time slots, all patients scheduled for colorectal resection — for example, anterior resection, low anterior resection, abdominal perineal resection and Hartmann's operation — were included in the study in two local hospitals, Queen Mary Hospital (QMH) and Tuen Mun Hospital (TMH) in Hong Kong. The researcher clearly explained the purpose and design of the study and assured patients of confidentiality. Eligible patients were invited to participate in the study and reassured that their refusal would not jeopardise their nursing care and treatment in the hospital. In addition, patients were advised that they could withdraw from the study at any time. Informed consent was obtained for every patient who participated in the study. For patients who were illiterate, they would be interviewed and questionnaires completed by the researcher. Subsequently, informed consent was obtained for participants.

Inclusion criteria for sampling were listed as:

1. new Chinese stoma patients

2. mentally sound
3. able to communicate verbally in Chinese.

Exclusion criteria for sampling were listed as:

1. mentally disabled patients unable to communicate
2. non-communicable stoma patients
3. patients who have a stoma from previous operations
4. non-Chinese stoma patients.

Data collection

For data collection, two validated, quantitative, Chinese structured questionnaires were used for data collection and assessment of the QoL, anxiety, depression and stress levels before and after the formation of a stoma in order to eliminate the language barriers and ensure the liability of the assessment result. Two Likert scale questionnaires, the Short-Form Health Survey (SF-36) Chinese (Hong Kong) Standard Version 1.0 questionnaire and the Chinese Depression Anxiety Stress Scale (DASS) 21, were adopted for the assessment of QoL, level of anxiety, depression and stress level of Chinese stoma patients. Questionnaires were collected from respondents at a designated time slot for data analysis purposes.

Statistical analysis

Outcome variables will be analysed according to completed sets of all self-reported, quantitative questionnaires in three designated time slots: pre-operative stage, one month post-operative period and three months post-operative period. Demographic characteristics of respondents will be summarised by using descriptive statistics. The first time slot, pre-operative stage, was assigned as the baseline while both one month and three month post-operation periods were regarded as assessment of dependent variables by adapting the Statistical Software Package for Social Science (SPSS) for Windows 7.0 were used for the data analysis by descriptive statistics. For tests of dependent variables, paired t-test with $p < 0.05$ as level of significance.

Outcome measurement

Sample size

Data collection was started from 2009 to 2012 in QMH and TMH in Hong Kong. A total of 329 patients agreed to participate in the study and completed the pre-operative questionnaire. However, only 60% (n=197) of respondents with a stoma formation completed the survey finally. Table 1 shows that 89% (n=176) completed the survey and 11% of respondents (n=21) did not complete the study for various reasons: defaulted follow-up; passed away because of critical condition; unsatisfactory condition; transferred to convalescence hospital for long-term care; went back to Mainland China; and three patients refused to continue for personal reasons.



Table 1 : Samplings

	Number	%
No. of patients completing pre-operative questionnaires	329	100
No. of patients with stoma formation	197	60
No. of ostomates dropping out	21	11
No. of ostomates completing the whole set of questionnaires	176	89

Demographic data

Due to the constraints of survey design, only demographic data on gender, age and nature of stoma surgery were collected. For gender, 64% (n=112) of respondents were male and 36% (n=64) were female. For age range, respondents were aged from 28 to 96, with a mean age of 64. For surgical procedure, the surgical procedure varied from abdominal perineal resection, low anterior resection, anterior resection and Hartmann's operation. Of the respondents, 62% (n=109) had loop ileostomy, 30% (n=53) had end sigmoid colostomy and 8% (n=14) had transverse colostomy performed (Table 2).

Statistical data analysis

In the aspect of patients' QoL (Tables 3 and 4), it was found that from the pre-operative stage to three months post-operation (paired t-test pair 3), 91% (n=160) of the respondents perceived significant improvement ($p < 0.001$) in physical functioning, for example, physical exercise, stepping up and down, distance walking from short distance to long distance, as well as activities of daily living, for example, bathing and dressing. Of the respondents, 90% (n=158) perceived significant a positive improvement ($p < 0.001$) in their physical role, for example, fewer constraints and difficulties in work and domestic household tasks due to limitations of physical health related to stoma surgery. Of the respondents, 87% (n=153)

perceived a significant positive improvement ($p < 0.000$) in their mental health, for example, attained good mental health state of less tension, peaceful mind, good spirit, more happiness in emotion, and also less sense of tiredness and fatigue. Of the respondents, 82.3% (n=145) perceived significant improvement ($p < 0.000$) in bodily pain, for example, an improvement of the severity of bodily pain, and exert limited negative hindrances to their daily life and work.

In patients' psychological adjustment (Table 5), from the pre-operative stage to one month post-operation (paired t-test pair 1), the respondents perceived significant improvement in anxiety and depression level ($p < 0.01$ and $p < 0.036$) respectively. From one month post-operation to three months post-operation (paired t-test pair 2), respondents perceived significant improvement in depression and stress level ($p < 0.006$ and $p < 0.008$).

DISCUSSION

Numerous literature sources suggest that ostomates have a worse QoL than those without a stoma^{9-14,18}. In this study, we found Hong Kong Chinese new ostomates perceived significant improvement in physical health and mental health. For all three paired time slots, respondents perceived significant improvement ($p < 0.000$) in physical functioning, role (physical), bodily pain and mental health.

Table 2 : Subject characteristics

		Number	%
Hospital	Queen Mary Hospital	72	41
	Tuen Mun Hospital	104	59
Sex	Male	112	64
	Female	64	36
Mean age	64.6 (28-96) years		
Loop ileostomy		109	62
End colostomy		53	30
Transverse colostomy		14	8

Table 3 : Data findings in paired t-test – SF36 (QoL)

SF 36 Aspect	P-values*		
	t-test pair 1	t-test pair 2	t-test pair 3
Physical functioning	0.000 *	0.000 *	0.000 *
Role (physical)	0.000 *	0.000 *	0.000 *
Role (emotional)	0.000 *	0.000 *	0.057
Bodily pain	0.000 *	0.000 *	0.000 *
General health	0.000 *	0.057	0.000 *
Vitality — energy /fatigue	0.000 *	0.567	0.000 *
Social functioning	0.291	0.000 *	0.000 *
Mental health	0.000 *	0.000 *	0.000 *

Paired t-test pair 1 (2 tailed) – pre-operation to one month post-operation

Paired t-test pair 2 (2 tailed) – one month post-operation to three months post-operation

Paired t-test pair 3 (2 tailed) – pre-operation to three months post-operation

Most respondents expressed good adjustment in physical and mental status. In addition, from pre-operation stage to post-three-month stage respondents perceived significant improvement ($p < 0.000$) in social functioning, general health and vitality; for example, energy and fatigue. These indicate patients are getting less pain and have the feeling that their general health is better than pre-operative in three months' time. In a four-year follow-up study performed by Bekkers and associates in 1997¹⁹, it was found that the ostomates had no statistically psychosocial difficulties after the first post-operative year. Another study performed by Grumann *et al.*¹⁸ reviewed that stoma patients had lower distress and improved in QoL, such as physical, social function and body image from six to nine months after surgery. In comparison with these previous studies, Hong Kong ostomates had a more favourable outcome.

In view of psychological adjustment for patients in depression, anxiety and stress levels, the psychological adjustment showed improvement in the one-month period post-surgery ($p < 0.001$ and $p = 0.04$). The outcome reflected the respondents did not perceive significant improvement

in psychological adjustment and acceptance to the status of stomas psychologically due to the short period of surgery. However, 62% (n=109) of the respondents were ileostomates. It is well understood that large amount of watery faecal output will be discharged from ileostomies²⁰. This may increase the patients' anxiety and stress levels because of the threat of stomal bag leakage. Frequent leakage may cause embarrassment and depression as well. Therefore, further study in this area may be necessary.

LIMITATIONS

The study was limited to investigate the QoL of stoma patients pre-operatively and post-operatively at one month and three months. A longitudinal study will be preferred to see the long-term adjustment. In addition, the sample size of this study is less than 200 and confined to two centres in Hong Kong; therefore, the result may not be generalisable to all Chinese populations. Besides, due to the advanced age of the population, some of the clients are illiterate. The researchers were required to conduct the interview and fill in the questionnaire for them. Consequently, potential

Table 4 : Data findings in % – SF36 (QoL)

Aspect	% (Numbers)	P-values
Physical functioning	91% (n=160)	$p < 0.001$
Physical role	90% (n=158)	$p < 0.001$
Mental health	87% (n=153)	$p < 0.000$
Bodily pain	82.3% (n=145)	$p < 0.000$

From the pre-operative stage to three months post-operation (paired t-test pair 3)



Table 5 : Data findings in paired t-test – DASS

Aspect	DASS		P-values*	
	t-test pair 1	t-test pair 2	t-test pair 2	t-test pair 3
Anxiety	0.01*	0.12		0.297
Depression	0.036*	0.006*		0.432
Stress	0.081	0.008*		0.308

Paired t-test pair 1 (2 tailed) – pre-operation to post one-month operation

Paired t-test pair 2 (2 tailed) – post one-month operation to post three-month operation

Paired t-test pair 3 (2 tailed) – pre-operation to post three-month operation

bias or misunderstanding may result. Lastly, as mentioned before, 62% (n=109) of the respondents are ileostomates and the high-output stoma is more difficult and complicated to manage. This potentially affects the results of this study. Therefore, further research into QoL, depression, anxiety and stress levels of various types of ostomates may reflect the actual situation.

CONCLUSION

Quality of life is an important issue for the ostomates since stoma formation and carrying a bag for feces is a disaster for them. There are vast research studies concerning this issue. However, the majority of them are western studies conducted over 10 years and there are few local Chinese studies. In this study, the findings are compatible with previous western studies. The major QoL determinants are probably universal across different societies and cultures. It is also noted that despite advances in medical, surgical, and nursing care in stomal surgery and quality of bags, quality of life has not made much improvement in comparison with before. However, this study reflects that stoma nurse clinic is effective to enhance the adjustment of Hong Kong Chinese new ostomates in the improvement of physical health, mental health and social functioning through patient education of self-efficacy of new stomas. Besides, the counselling and tender loving care of stoma nurses can release part of the anxiety and depression of new Chinese ostomates as well.

This survey is the first attempt to investigate the QoL and psychological adjustment for new Chinese ostomates living in Hong Kong, it had also proven the effective intervention of stoma nurse in the QoL of new ostomates.

CONFLICT OF INTEREST

None disclosed.

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Effect of sea cucumber extract on diabetic foot ulcers



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BACKGROUND

Diabetic foot ulcers (DFUs) are defined by the presence of abnormal neurological injury, infection or vascular blood vessel damage¹. A DFU is the main complication of diabetes mellitus², which is linked to the presence of neuropathy, angiopathy and foot deformity, including pain and vascular disorders³. As a result, DFUs may become necrotic, requiring the patient to have a foot or leg amputation. The prevalence of persons with a DFU that have an amputation is as high as 85%^{1-2,4}.

The cost of treatment for patients with DFUs is very expensive⁵, the periods of hospitalisation are longer and often ends with amputation⁶⁻⁷. This condition requires appropriate wound management to prevent infection, reduce necrotic tissue, and improve the wound healing process.

Modern dressing materials such as film, foam, non-adherent, hydrogel, hydrocolloid and alginate⁸ are currently being used. Unfortunately, the price is relatively expensive⁹, so an alternative dressing which is safe and cost-effective is needed.

Natural material is an alternative that can be used as a wound care dressing. Natural alternatives can include: honey, aloe vera, black seed, and sea cucumber extract. These natural materials are less expensive and easier to obtain in many areas in Indonesia¹⁰.

Sea cucumber is a natural material that is commonly known as trepang, beche-de-mer, or gamat. It has long been utilised in the food and folk medicine systems of Asia and Middle East communities¹¹. It is abundant in regions of both Indonesia and Malaysia. Both *in vitro* and *in vivo* studies have shown sea cucumber has several therapeutic properties including anti-inflammatory^{12,13}, antibacterial and antimicrobial¹³⁻¹⁵, antioxidant^{16,17}, and wound healing^{18,19}. Nutritionally, sea cucumbers have valuable nutrients such as Vitamin A, Vitamin B1 (thiamine), Vitamin B2 (riboflavin), Vitamin B3 (niacin), and minerals, such as calcium, magnesium, iron and zinc, and are high in protein^{20,21}. Moreover, sea cucumbers have bioactive compounds that may have therapeutic effects such as triterpene glycoside, enzyme, amyloses, fatty acid, and cytotoxin²², glycine, glutamic acid, arginine²², saponin²³, and glycosaminoglycans²⁴.

Examination of the properties suggests that sea cucumber can help with wound healing. In addition, there was no known study using sea cucumber on DFUs in a clinical setting. The purpose of this study is to determine the effect of sea cucumber extract on wound healing for DFUs.

METHODS

This was a quasi-experimental study with one group pre and post design. The study population consisted of 14 type II diabetic patients, male and female. They were consecutive patients at the outpatient wound clinic at Doctor Soedarso, Pontianak, a general hospital in Indonesia. This study was conducted from 26 March to 2 June 2014. Inclusion criteria were Ankle Brachial Index 0.9 to 1.2, blood sugar level 70–250 mg/dl, albumin level >3, DFU scale 2–4 (Wagner scale).

Patients with infection and using corticosteroids were not included. Patients who did not complete their treatment and with severe complaints during the wound care trial were eliminated from the study. The consent form was explained in detail and so were the objectives of the study. The data collection procedure and the results of this study were reported in a manner that does not identify any individual.

Table 1: Characteristics of participants (n=14)

Characteristics	Categories	F
Age (years)		49 (37–64) ^b
Gender	Men	3 (21.4%)
	Women	11 (78.6%)
Wound grade (Wagner scales)	Stadium 2	5 (35.7%)
	Stadium 3	5 (35.7%)
	Stadium 4	4 (28.6%)
ABI		0.95 (0.9–1.1) ^b
Blood sugar level		179.57±17.314
Albumin level		3.250±0.95*

Values are categories data (%), Mean ±SD* or Median (min-max)** where specified

In this study, we used sea cucumber (*Stichopus hermannii*), obtained from Sukadana region, West Borneo. Acetate acid was used to make an extract. Sea cucumber extract was added into hydrogel preparations with a ratio of 250 mg: 1 ml.

Examination of blood sugar and albumin levels, and ABI was carried out before and after the application of sea cucumber extract. The Leg Ulcer Measurement Tool (LUMT) was used for wound assessment to assess wound status on the foot²⁵. The LUMT has two parts but only part A, which has 14 items evaluated by the researcher, was used for this study. Every item has five wound assessments at two weeks that were done by the researcher. This tool has shown 0.82 validity and intrarater and interrater reliability of >0.75 and high sensitivity^{25,26}. For documentation, every wound was measured and photographed using a digital camera. Dressing changes depended on the amount of exudate and wound condition. The follow-up period of treatment was two weeks.

This research was approved by the Ethics Committee of the Faculty of Nursing, University of Padjajaran, Bandung and General Hospital, Doctor Soedarso, Pontianak.

RESULTS

Fourteen patients were included in the study; 3 male (21.4%) and 11 female (78.6%), with ages ranging from 37 to 64 years. Wagner's grade II, III and IV ulcers were 35.7%, 35.7%, and 28.6% patients respectively. Mean ABI value was 0.95,

ranging from 0.9 to 1.1. Mean blood glucose level was 179.57±17.31 and mean serum albumin level was 3.250±0.95 (Table 1).

The total score of the LUMT wound assessment before application of sea cucumber was 37.000 and after was 21.214 (Table 2). There was significantly difference wound healing before and after sea cucumber application after 2 weeks (p=0.001).

Of the 14 LUMT items, there were two items that showed no effect such as wound area and undermining. However, for the other items there were significantly differences (Table 3). This included exudate type and amount, wound depth, presence of necrotic tissue type and amount, presence of granulation tissue, wound edge and viability, oedema type and location, and presence of infection.

During treatment there were no reported amputations or wound dressing irritation, and allergy. Before and after wound examples are shown in Figures 1 and 2.

DISCUSSION

In this study, we investigated the effect of sea cucumber extract on wound healing on DFUs. This study was the first on DFUs, so comparison with previous results was not possible.

Previous research using sea cucumber found a higher percentage of wound contraction compared to the control^{27,28},

Table 2: Pre and post treatment using sea cucumber extract on diabetic foot ulcers (n=14)

	Median (min-max)	Z	p
Pre treatment	37.000 (19.00–51.00)	-3.299	0.001*
Post treatment	24.500 (00.00–39.00)		

*p <0.005 (Wilcoxon test)



Table 3: Comparing between before and after applied sea cucumber extract based on LUMT (n=14)

No.	Items	Before	After	Z	p
1	Exudate type	3.00 (2.00–4.00)	2.00 (0.00–3.00)	-3.442	0.001*
2.	Amount	3.00 (2.00–4.00)	2.50 (0.00–3.00)	-3.207	0.001*
3.	Wound area	4.00 (2.00–4.00)	4.00 (0.00–4.00)	-1.841	0.66
4.	Depth	3.00 (2.00–4.00)	2.00 (0.00–4.00)	-2.714	0.007*
5.	Undermining	2.00 (0.00–4.00)	1.00 (0.00–4.00)	-1.890	0.059
6.	Necrotic type	2.00 (0.00–4.00)	1.00 (0.00–2.00)	-3.017	0.003*
7.	Necrotic type amount	2.50 (0.00–4.00)	0.50 (0.00–3.00)	-3.108	0.002*
8.	Granulation tissue type	3.00 (2.00–4.00)	1.00 (0.00–3.00)	-3.384	0.001*
9	Amount granulation tissue	3.00 (1.00–4.00)	1.00 (0.00–3.00)	-3.270	0.001*
10.	Wound edge	3.00 (1.00–4.00)	1.50 (0.00–3.00)	-3.384	0.001*
11.	Wound edge viability	3.00 (1.00–3.00)	1.00 (0.00–2.00)	-3.286	0.001*
12.	Oedema type	2.00 (1.00–3.00)	1.00 (0.00–2.00)	-3.071	0.002*
13.	Oedema location	2.00 (1.00–3.00)	1.00 (0.00–2.00)	-2.714	0.007*
14.	Wound infection	3.00 (1.00–4.00)	1.00 (0.00–2.00)	-3.126	0.002*

Value are median (min-max) *p <0.05 (Wilcoxon test)

enhanced wound contraction, stimulation of tissue regeneration, and regulation of pro-inflammatory cytokines in burns²⁹. However, animal models were used.

Other research examined the effect of sea cucumber extract collagen as a bone substitute material for cytotoxicity, in cultured fibroblast cells³⁰. This study found that the sea cucumber extract collagen had no cytotoxic effect on fibroblast cell cultures. This agreed with work by Popov³¹, which found that collagen peptide had no toxic effect. In addition, it was rapidly absorbed into the skin, and safe when was administered in the long term, so it can be used for wound healing.

In our study, there were differences between LUMT assessment scores at baseline and at two weeks. Overall,

in this study, sea cucumber extract had a positive effect on wound healing, particularly DFUs. However, this study had some limitations such as: there was no control group; the follow-up period was only two weeks; and it was a small sample size.

CONCLUSION

In conclusion, the result of this study shown that sea cucumber extract could be used as an alternative dressing. No toxic effects were reported in this study. Furthermore, our study showed that using sea cucumber significantly reduced amputation and wound dressing irritation. However, further research is needed using larger samples, a control group and a randomisation design in the clinical setting.



Figure 1: Wound before treatment with sea cucumber extract



Figure 2: Wound after treatment with sea cucumber extract

Pengaruh perawatan luka menggunakan ekstrak teripang terhadap penyembuhan ulkus kaki diabetik

Luka kaki diabetik didefinisikan luka dengan adanya ketidaknormalan neurologik, infeksi ataupun kerusakan pembuluh darah vaskuler¹ Luka ini disebabkan karena komplikasi yang dari diabetes² yang dihubungkan dengan adanya neuropati, angiopati serta kelainan bentuk kaki termasuk nyeri dan gangguan pembuluh darah³ Akibat dari luka kaki diabetik akan terjadi nekrosis dan 85% pasien dengan luka kaki diabetik akan mengalami amputasi^{1-2,4}.

Pasien dengan luka kaki diabetik juga membutuhkan biaya yang mahal⁵, masa rawat di rumah sakit yang lama bahkan seringkali diakhiri dengan amputasi^{6,7}. Kondisi ini membutuhkan manajemen perawatan luka yang tepat untuk mencegah infeksi, mengurangi jaringan nekrosis, dan meningkatkan proses penyembuhan luka.

Bahan balutan moderen seperti *film dressing*, *foam dressing*, *non adherent dressing*, *hydrogels*, *hydrocolloid* dan *alginate* saat ini telah banyak digunakan⁸. Sayangnya, harga produk *advance/moderns dressing* relatif mahal⁹, sehingga balutan alternatif yang efektif, aman, serta murah sangat dibutuhkan. Bahan balutan (*dressing*) alami sebagai alternatif dapat digunakan seperti madu, lidah buaya, jintan dan ekstrak gamat (teripang). Bahan alami tidak mahal dan lebih mudah didapat di berbagai wilayah Indonesia¹⁰.

Teripang adalah bahan alami yang sering disebut gamat atau timun laut. Teripang telah dikonsumsi sebagai makanan dan digunakan untuk pengobatan di Asia dan Timur Tengah¹¹.

Teripang banyak terdapat di Indonesia dan Malaysia. Hasil penelitian baik *in vitro* maupun *in vivo* telah menunjukkan bahwa teripang mempunyai beberapa sifat terapeutik meliputi anti-inflamasi^{12,13}, anti-bakteri and anti-mikroba¹³⁻¹⁵, anti-oksidan^{16,17}, dan penyembuhan luka^{18,19}. Berdasarkan kandungan nutrisi, teripang mempunyai nilai nutrisi seperti Vitamin A, Vitamin B1 (thiamine), Vitamin B2 (riboflavin), Vitamin B3 (niacin), dan mineral-mineral meliputi kalsium, magnesium, zat besi dan seng serta banyak mengandung protein^{20,21}. Selain itu, teripang memiliki kandungan bioaktif yang mempunyai efek terapeutik yaitu *triterpene glycoside*, enzim, amilose, asam lemak dan sitoksin²², glisin, asam glutamat, arginin²², saponin²³, and *glycosaminoglycans*²⁴.

Hasil penelitian terhadap kandungan teripang menunjukkan bahwa teripang dapat membantu penyembuhan luka. Selain itu, tidak ada penelitian penggunaan teripang pada luka kaki diabetik di tatanan klinik. Tujuan dari penelitian ini adalah untuk menentukan efek teripang pada penyembuhan luka kaki diabetik.

METODOLOGI

Metodologi penelitian ini adalah dengan rancangan quasi eksperimen dengan *one group pre and post design*. Jumlah sampel 14 responden dengan DM tipe II. Responden adalah pasien yang datang ke Poli luka RSUD Dr. Soedarso Pontianak. Penelitian ini dilaksanakan mulai 26 Maret sampai dengan 2 Juni 2014. Adapun yang menjadi kriteria inklusi sampel dalam penelitian ini adalah *Ankle Brachial Index* normal (0,9–1,2), Gula darah terkontrol 70–250 mg/dl, Albumin >3, Derajat luka kaki diabetik 2–4 menurut klasifikasi Wagner. Pasien mengalami infeksi dan mendapat obat kortikosteroid tidak dilibatkan dalam penelitian. Pasien yang tidak tuntas dalam pengobatan dan memiliki keluhan serius selama penelitian akan di eliminasi dari penelitian. Pernyataan kesediaan dan tujuan dari penelitian dijelaskan secara mendetail. Prosedur pengumpulan data dan hasil dari penelitian akan dilaporkan dengan menjaga kerahasiaan pasien.

BAHAN DAN ALAT

Pada penelitian ini, kami menggunakan

Teripang *Stichopus hermannii* yang diperoleh dari alam sukadana yang telah dikeringkan. Bahan kimia yang digunakan untuk melakukan ekstrak adalah Asam asetat. Ekstrak teripang ditambahkan dengan sediaan hidro gel dengan perbandingan 1 ml sediaan dilarutkan 250 mg ekstrak teripang. Alat yang digunakan adalah Instrumen *Leg Ulcer Measurement Tool* (LUMT) untuk memprediksi penyembuhan luka. Instrumen ini menggambarkan perubahan status luka pada kaki (14). Pada penelitian ini hanya menggunakan bagian A saja untuk pemeriksa/peneliti sedangkan pada bagian B (subjektifitas pasien) tidak digunakan. Validitas dari LUMT adalah 0,82 dan reabilitas *intrarater* serta *interrater* >0,75 serta sensitivitas yang tinggi^{25,26}. Pendokumentasian, setiap luka diukur dan diambil foto dengan menggunakan kamera digital. Penggantian balutan tergantung pada jumlah eksudat dan kondisi luka. Periode perawatan dilakukan selama 2 minggu pada tiap responden.

Penelitian ini disetujui oleh Komite Etik Fakultas Keperawatan Universitas Pajajaran, Bandung dan RSUD Dr Soedarso Pontianak.

HASIL

Total 14 responden di inklusi pada penelitian; 3 pria (21.4%) dan 11 wanita (78.6%) dengan rentang usia dari 37-64 tahun.



Derajat ulkus II, III dan IV menurut Wagner adalah masing-masing 35.7%, 35.7% dan 28.6%. Nilai rata-rata ABI adalah 0.95 dengan rentang dari 0.9-1.1. Nilai rata-rata gula darah adalah 179.57 ± 17.31 dan nilai rata-rata sertum albumin adalah 3.250 ± 0.95 (Table 1).

Total skor pengkajian luka sebelum aplikasi teripang adalah 37.000 dan setelah aplikasi 21.214 (Table 1). Ada perbedaan secara signifikan penyembuhan luka sebelum dan sesudah aplikasi menggunakan teripang setelah 2 minggu ($p=0.001$). Dari 14 item LUMT, ada 2 item yang tidak mempunyai pengaruh meliputi area luka dan *undermining*. Namun, item yang lain memiliki perbedanan secara signifikan (Table 3) meliputi tipe dan jumlah eksudat, kedalaman luka, adanya tipe dan jumlah jaringan nekrosis, granulasi, tepi luka, tipe dan lokasi edema dan adanya infeksi. Selama perawatan tidak dilaporkan adanya amputasi atau iritasi dan alergi. Sebelum dan sesudah perawatan terdapat pada gambar 1 dan 2.

PEMBAHASAN

Pada penelitian ini, kami meneliti efek ekstrak teripang pada penyembuhan luka ulku kaki diabetik. Penelitian ini, merupakan penelitian yang pertama pada ulkus kaki diabetik sehingga tidak mungkin dibandingkan dengan penelitian sebelumnya. Pada hasil penelitian sebelumnya, teripang ditemukan memiliki presentase kontraksi yang lebih tinggi dibanding dengan kontrol^{27,28}, pebebaran kontraksi luka, merangsang pertumbuhan jaringan dan pengaturan pro-inflamator sitokin pada luka bakar²⁹, namun penelitian ini dilakukan pada hewan percobaan.

Penelitian berbeda, menguji efek ekstrak kolagen teripang yang dikultur pada sel fibroblas³⁰. Hasilnya, ditemukan bahwa ekstrak kolagen teripang tidak memiliki efek sitotoksik pada sel fibroblas. Hasilnya sejalan dengan penelitian dengan Popov yang menemukan bahwa kolagen peptida tidak memiliki efek toksik³¹. Selain itu, teripang lebih cepat terabsorpsi pada kulit, dan aman bila diberikan dalam jangka panjang, sehingga dapat digunakan pada penyembuhan luka.

Hasil penelitian kami, ada perbedaan antara baseline dan setelah 2 minggu pengkajian LUMT. Secara keseluruhan pada penelitian ini, teripang mempunyai efek positif pada penyembuhan luka khususnya ulkus kaki diabetik. Namun, memiliki beberapa keterbatasan seperti tidak menggunakan kelompok kontrol, follow up hanya 2 minggu dan jumlah sampel yang kecil.

SIMPULAN

Kesimpulan dari penelitian bahwa teripang dapat digunakan sebagai balutan alternatif. Tidak memiliki efek toksik. Selain itu, hasil penelitian kami menunjukkan bahwa penggunaan teripang secara signifikan mengurangi amputasi dan iritasi. Namun diperlukan penelitian lebih lanjut dengan jumlah

sampel yang lebih besar, menggunakan kelompok kontrol dan rancangan randomisasi pada tatanan klinik.

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Reflections on the early history of the WCET – a South African perspective



Marylyn McManus

ET
WCET Life Member/South Africa

In 1976 Norma Gill called upon any interested international nurses to join her at St Mary's Hospital, London, to discuss the founding of an international association of enterostomal therapy nurses. Twelve ET nurses representing Australia, Canada, England, Ireland, Israel, South Africa, USA, Mexico and Sweden were present. According to Prilli Stevens, "For the twelve of us who attended the pilot meeting, life was never to be the same again!" It was decided to 'piggy back' onto the International Ostomy Association meeting to be held in Milan, Italy in 1978.

On 15 May 1978, 36 stomal therapy nurses from 16 countries gathered to formally constitute the WCET. Patricia Zollars (USA) chaired the meeting. The first officers to serve on the Executive for a two-year term were President Norma N Gill (USA); Vice-President Miriam Dolphin (England); Treasurer Barbara Foulkes (England); Recording Secretary Marilyn Spencer (USA) Corresponding Secretary: Lorraine Acworth (Australia). A decision was taken to hold a second meeting in Dusseldorf in 1979 as stomal therapists from various countries were expressing interest in the newly formed association.

By 1979 the membership had grown and there was a good attendance at the Congress. Prilli Stevens chaired the meeting but the vice-president, Miriam Dolphin, never took office and no explanation was ever forthcoming. Norma outlined her ideas at a luncheon and, with the assistance of industry, the groundwork was prepared and the future of the newly formed WCET was assured. The journal would be circulated to encourage new members to join.

South Africa had two representatives on the Board in 1980 - Prilli Stevens (president) and Marylyn McManus (treasurer and membership secretary). The vice-president was Marie Burroughs (Canada); corresponding secretary was Lorraine Acworth (Australia) and recording secretary was Marilyn Spencer (USA). It was decided to honour Norma by establishing a Foundation in her name, which would become a source of funding for nurses wishing to train in the field or to attend Congresses. Prilli Stevens headed the Education Committee and I the Norma N Gill Foundation — positions

we held from 1984 to 1990. A \$50,000 donation in 1986 from a South African patient of mine was a financial boon to the Foundation at that time.

In 1982, England had accepted to host the fourth WCET Congress but cancelled four months before it was due to take place. Apparently the UK Nursing Council felt that, as only 61 members had registered, the numbers were inadequate for a Congress. Prilli Stevens knew that the progress being made to grow the membership would grind to a halt if an alternative venue was not found. So she and I got busy.

Without fax machines or computers, and many telephone calls later, arrangements were made to take the congress to Munich. The Cancer Association, my employer, agreed to print agendas, minutes and even meal tickets. South African Airways were persuaded by Prilli to waive excess baggage charges and so we arrived in Munich. The railway station was nearby and a porter was co-opted to push our 'cargo' to the nearby hotel, the very cheap Drie Loewen. It was not until later that evening that we realised our cheap hotel was in the middle of the 'Red Light District'! Margaret Coyle was wheelchair-bound, but that did not stop us from pushing her around while we endeavoured to find a venue for the meeting. 'Blue movies' were banned in South Africa so we were curious. The cinema showing a porn movie was up a flight of stairs however Prilli and an usher somehow managed to push Margaret, seated in her wheelchair, into the cinema. Ten minutes later we had seen enough. It was a hair-raising spectacle to watch Margaret's descent — once again aided by Prilli and the usher!

None of the hotels in Munich would give us a room for the business meeting. As a last resort, the manager of a *hofbräuhaus* (beer hall) was approached. He agreed to the meeting being held from 2.00pm to 5.30pm and no later as the locals would be arriving for 'sundowners'. 73 members registered and what a successful meeting it was. Mary Jo Kroeber was elected president and the minutes recorded by Secretary Joan van Niel cover seven pages. The growth of the WCET was assured.

There was more drama as we were about to leave. Margaret Konschel (Zimbabwe) developed gallstones and required hospitalisation. Communication with the medical staff was problematic as none of them spoke English and we could not speak German. Margaret did not have travel insurance so Peter Salt stayed in Munich until Margaret's discharge from hospital and paid her hospital account. A lesson in caring so appreciated by the South African stomal therapists and, of course, Maggie (who, unfortunately is no longer with us as she died several years ago).

1988 saw the Congress held in Göteborg, Sweden. Prilli Stevens still chaired the Education Committee and I still chaired the NNGF Committee. Judy Truscott (Chamberlain) was the South African ID.

The pre-Congress meeting was held on an island and Marilyn Spencer, as WCET President, reiterated that South Africans would not be allowed to attend the Congress because of the country's political isolation at that time. It would be disrupted by an ANC demonstration if we tried to access the venue but we could attend the business meeting on the final day. To add insult to injury, a Russian submarine had entered Swedish waters with several Russian surgeons aboard. It was the time of the Cold War and Russia was perceived as 'an enemy of the West'. Prilli was so upset by the suggestion that the Russian surgeons should be invited to the Congress, while we, founder members, were banned that she threatened to leave!

Professor Leif Hulten visited the island and informed us that the empty cool drink cans could be exchanged for cash. The cans were bagged and taken with our luggage to our hotel. Hollister gave us 'sightseeing vouchers'. Daily we joined the queue with the poor as 'Bag Ladies' and fed the tins into the wall. The cash received paid for our drinks and lunches while we wandered around Göteborg 'sightseeing!' Meetings with our committee members took place at midnight when they returned from the evening events as our hotel faced the Congress hotel. When lights were switched on, Prilli and I

telephoned our respective committee members for committee meetings!

A tearful Mariann Bruce (Norway) escorted us into the business meeting on the last day of the Congress. Judy Truscott (Chamberlain), the South African ID, made a compelling speech about banning members on political grounds. The vote favoured South Africa's continued membership and an unanimous decision was made that, in future, no stomal therapist would be banned from attending a Congress on political grounds.

It did not end there as Gun Nordstom (Sweden) was the president-elect. When the Swedish Nursing Council heard that South Africa had retained its membership, they forced Gun to step down. Gun served as corresponding secretary from 1990 to 1994.

ADDENDUM

Marilyn Spencer and Pat Blackley visited South Africa a year later, in 1989. Whilst on a ward round at Baragwanath Hospital, Johannesburg Marilyn Spencer was summoned to take a telephone call in the matron's office. A smiling Marilyn returned and announced, "South Africa your problems are over. The person responsible for preventing your attendance at the Gotenborg Congress has died!"

Three South Africans have been awarded WCET Life Memberships - Marylyn McManus, 1992, Prilli Stevens, 2000 and Judy Chamberlain, 2012



Norma N Gill Foundation

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The following companies have generously given donations towards the NNGF scholarships



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Pat Sinasac — Australia
Sue Delanty — Australia
Ann Williams — USA
Rose Murphee — USA

Other member donations:

Patricia Sinasac — Australia
Sue Delanty — Australia
Julie Elizabeth Connolly — Australia
Ann Bew — Australia
Carol Katte — UK
Ann Williams — USA
Rose Murphee — USA
Sharon Baranoski — USA
Elizabeth Murray — Saudi
I Made Sukma Wijaya — Indonesia
Aihua Chen — China

Margot Hickman — Australia
Arum Pratiwi — Indonesia
Erica Taylor — Australia
Anon — China
Aleza Corpuz — Canada
Ednalda Franck — Brazil
Josie King — Australia
Geraldine O'Brien — Australia
Debbie Dafilia — Indonesia
Desiree Davies — Australia
Grethe Folstad Lund — Norway
Kathleen Francis — USA



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