

TRANSCULTURAL ADAPTATION OF BEST PRACTICE GUIDELINES FOR OSTOMY CARE: POINTERS & PITFALLS

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Abstract

Objective: No standardized guidelines for ostomy care exist in the Middle East to support best practice. This contrasts with North America where ostomy guidelines are widely used in health service organizations. It is unknown whether guidelines developed in one country are relevant to other parts of the world. This project sought to assess the relevance of North American ostomy guidelines to a different health system and cultural context in the Middle East. The overall aim was to reach consensus to adopt, adapt or reject.

Methods: A graduate student, enrolled in a Masters of Nursing (MN) program in the Gulf Cooperation Council (GCC) state of Qatar, critiqued two North American guidelines using standardized tools. The process engaged local stakeholders and opinion leaders in the colorectal cancer field, as well as international ostomy care and practice guideline experts.

Results: Results of this critique, combined with input from internal and external stakeholders, resulted in a hybrid guideline that has been used in a Muslim society with different demographic, health system and cultural contexts.

Conclusions: Appraising the quality, content and relevance of international ostomy guidelines to different jurisdictions provided the opportunity for local practitioners to define and shape best practice. The adapted guideline is expected to promote consistent standards of care and optimal health outcomes for persons with ostomy in a region where cultural and religious values are intricately linked to health beliefs and practices.

Key words: Practice Guidelines; Adaptation; North America; Middle East; Ostomy Care.

1. Introduction

International data indicate that colorectal cancer is the third most common malignancy in the world, with 1.4 million new cases diagnosed in 2012 [1]. In the Middle East, the incidence of colorectal cancer is < 10 per 100,000 population; this is substantially lower than North America, Australia and New Zealand [2]. However, higher rates have recently been reported in Israel and Qatar, where age standardized rates range from 30-40 per 100,000 population [1,2]. This is consistent with findings of a study conducted in Qatar at the turn of the century identifying that colorectal cancer rates in this small Arabian Gulf country were higher than other Gulf Cooperation Council (GCC) states, with the most common sites being the sigmoid and descending colon [3]. Despite advancements in oncology surgery in the past decade, ostomy formation remains one of the major treatments for colorectal cancer [4]. As such, stoma formation surgeries are on the rise around the world concurrent with the increase in colorectal cancer.

An ostomy is an opening (stoma) from inside the small or large bowel to the outside [5]. Ostomy can be permanent, when an organ (the small intestine, colon, rectum, or bladder) must be removed. It can be temporary, when the organ needs time to recover. The most common ostomies are a colostomy, ileostomy and a urostomy.

Patients with ostomy have physical, nutritional, spiritual, health education and psychological support needs. It is important for nurses, physicians and other health care providers to understand the comprehensive needs of patients who have undergone ostomy so they can provide responsive care. The goal of health care providers is to assist patients with ostomies to achieve optimal independence, self-care abilities, nutritional health and bio-psycho-social-spiritual well-being. There is a trend to standardize care and management approaches around

the world using clinical guidelines. The goal is to promote optimal outcomes and reduce practice variation [6].

Clinical guidelines are systematically developed recommendations to support provider and patient decisions about health practices to achieve high quality care [6]. A facility and literature review undertaken by a graduate nursing student in the GCC state of Qatar revealed that no practice guidelines relevant to ostomy care were in use in the Middle East. Furthermore, no studies could be found that evaluated ostomy care of patients with stomas in this part of the world.

Guideline adaptation is the systematic approach used to customize an existing guideline to suit the local context; it is an alternative to guideline development [7]. Decisions affecting the adaptation, adoption or rejection of guidelines are influenced by several variables. These include the quality of the guideline, the scientific evidence supporting the guideline, clinical expertise, patient preferences, policies, culture and budget [8]. Authors of the Abu Dhabi Declaration cite four reasons that practice guidelines developed in one part of the world cannot simply be adopted in other regions. They include: (1) differences in culture, genetics, and environmental factors; (2) variations in patients' presenting features and stage of disease; (3) differences in health service access such as technology or drugs; (4) evidence supporting the guidelines may be generated from populations or contexts with limited relevance to other jurisdictions [9]. A notable advantage of adapting existing guidelines is to reduce duplication of effort, while allowing health providers to integrate local perspectives into the guideline content [10].

2. Methods

2.1 Purpose

Critiquing North American ostomy guidelines and assessing their relevance to a different geographic and cultural context was the focus of this student-led graduate project. The process engaged local stakeholders and opinion leaders in the colorectal cancer field, as well as international ostomy care and practice guideline experts. The aim was to appraise the potential use of guidelines developed in North America in the local context and to reach consensus to adopt, adapt or reject. Engaging Middle East health professionals in guideline appraisal enabled clinical leaders to assert their critical thinking skills and give input regarding the "fit" with the local health system and the cultural-spiritual beliefs and values of the population.

The following questions served as the focus of inquiry:

1. What practice guidelines currently exist in ostomy care and management to support best practice of nurses and other health care professionals?
2. What are the strengths and weaknesses of existing ostomy care guidelines?

3. What is the relevance of the ostomy care guidelines to the Qatar health care system and population?

2.2 Philosophical Underpinnings

This work was philosophically grounded in the principles of evidence-based practice (EBP) which involves the explicit use of the current best evidence to make decisions about patient care [11]. It involves augmenting health care providers' clinical expertise with quality research data. Evidence-based nursing (EBN), a subset of EBP, is the application of relevant, valid evidence to inform clinical decisions, with consideration of clinical expertise, patient preferences and conditions, available resources, as well as the judgment and qualifications of the nurse [12]. Besides the widely held view that EBP leads to high quality care and the best patient outcomes [9], experts assert that EBP also reduces practice variations, promotes consistency of care, enhances patient safety, increases self-care capacity and improves provider satisfaction [13,14]. At a system and organizational level, EBP has been shown to improve cost-effectiveness [15].

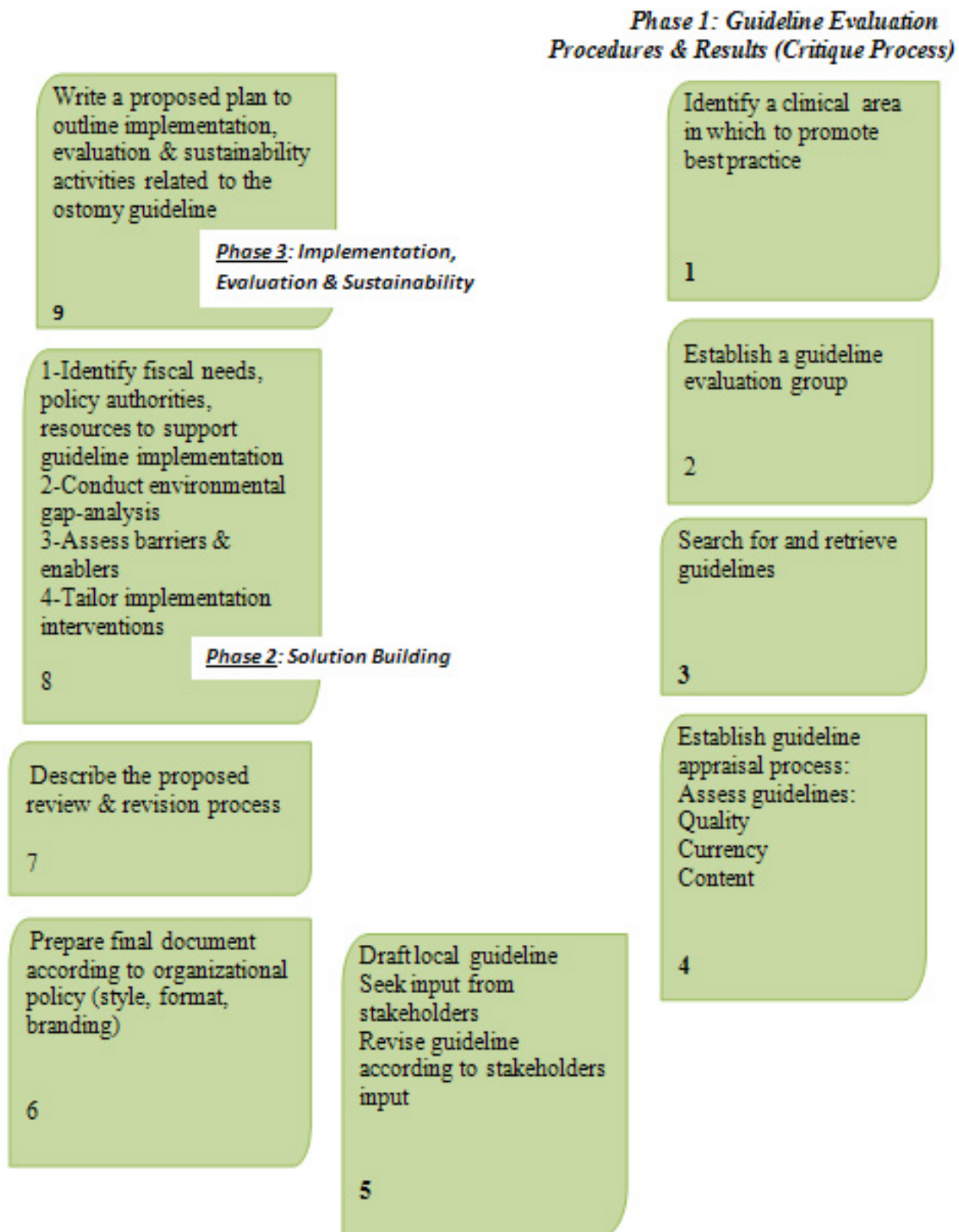
2.3 Methodological Framework

The CAN-Implement adaptation and implementation planning resource version-3 was the overarching framework used to critique and assess the relevance of the two North American ostomy guidelines, to the Middle East [7]. This comprehensive framework comprises 3 phases: (1) problem identification; (2) solution building and (3) implementation, evaluation & sustainability. It is structured around 9 sequential steps, each designed to assist users to evaluate, adapt and implement guidelines at the point-of-care. Each step consists of specific activities associated with the evaluation of existing practice guidelines and includes strategies for making decisions about their relevance to local contexts (Figure 1 - top of next page).

2.3.1 Critiquing Process -- CAN-Implement Phase 1

Phase 1 of the CAN-Implement framework consists of 7 steps. The initial four steps involve the following activities: (1) identifying a clinical best practice target; (2) establishing an interprofessional team who will participate in the evaluation; (3) describing the strategies to locate existing guidelines; and (4) clarifying the processes, as well as criteria for appraising the guidelines. Activities of steps 5-7 entail seeking input from stakeholders and/or opinion leaders, drafting a document to reflect the consensus of evaluation team members and outlining the plan for on-going reviews and revision processes. These final 2 steps focus on: (1) identifying policies, stakeholders, resources and an implementation plan and (2) assessing the clinical environment for barriers and facilitators that may influence guideline use, specifying implementation interventions, as well as evaluation and sustainability strategies.

Figure 1: CAN-Implement Guideline Adaptation and Implementation Planning Resource



Adapted from Harrison, M. & van den Hoek, J. (2012). Canadian Guideline Adaptation Study Group. CAN-IMPLEMENT: A Guideline Adaptation and Implementation Planning Resource. Queen's University School of Nursing and Canadian Partnership Against Cancer, Kingston, Ontario, Canada.

3. Results of Phase 1 Critique

3.1 Practice Guideline Target

As noted in the introduction, no practice guidelines for ostomy care are currently in use in the Arabian Gulf region. To reduce practice variation and to ensure optimal standards of care and patient outcomes, a practice guideline was deemed necessary. The largest health care corporation serving the major population of Qatar was the target site for this project. In 2013, over 50 new stoma surgeries were performed at this large tertiary care center.

3.2 Guideline Evaluation Group Formed

Led by the graduate nursing student, a guideline evaluation group was formed. The team consisted of the student's academic supervisor as well as clinical experts, including the physician lead for colorectal cancer services and two advanced clinical nurse specialists (ACNSs) in the GI program.

3.3 International Ostomy Care Guidelines Located

A literature search uncovered a Canadian ostomy care and management guideline published by the Registered Nurses Association of Ontario (RNAO) [16] and an American practice guideline for fecal ostomy developed by the Wound, Ostomy and Continence Nurses Society (WOCN) [17]. From the Association of coloproctology of Great Britain and Ireland (ACPGBI) and the Scottish Intercollegiate Guidelines Network (SIGN), sixteen colorectal guidelines were found; however, none were relevant to stoma care or management. Scrutiny of other data bases, including the World Health Organization (WHO) Guidelines, National Institute for Clinical Excellence (NICE) Clinical Guidelines, National Cancer Care Network (NCCN), Royal College of Nursing, Cumulative Index to Nursing & Allied Health (CINAHL), Pub Med and Google Scholar, resulted in no guidelines related to ostomy care. The two guidelines from RNAO and WOCN were the focus of critique in this project.

3.4 Guideline Appraisal Process Established

3.4.1 Instruments

Literature indicates the Appraisal of Guidelines for Research and Evaluation (AGREE II) instrument is the universally recognized gold standard for evaluating practice guidelines [18]. The AGREE II tool has been translated into 32 languages and is employed widely to assess the quality of guidelines. The World Health Organization, the Council of Europe and the Guidelines International Network recommend this tool for guideline appraisal.

The AGREE II instrument consists of 23 Likert scale items grouped into six domains. These include: scope and purpose, stakeholder involvement, rigor of development, clarity and presentation, applicability, and editorial independence [19]. Domain scores are influenced by the

degree to which the guideline development processes are described and the strategies used to reach agreement about recommendations for practice [20]. Besides generating separate quality scores in each domain, the AGREE II instrument enables the appraiser to assign an overall quality rating of the guideline. This global score indicates whether the guideline is accepted for use in practice (e.g. adopted without modification, adopted with alteration(s) or not adopted). Field testing of the AGREE instrument has shown acceptable internal consistency (Cronbach's alpha .64 to .88) [19].

An additional tool, the Rapid Critical Appraisal (RCA) Checklist for Evidence-Based Clinical Practice Guidelines [21] was also used in the guideline review process. Scoring criteria for this 17-item checklist are grouped into three quality domains: credibility, applicability and generalizability. Two items unique to this brief checklist addressed practice relevance which had not been covered in the AGREE II instrument. As such it offered an enhancement to the AGREE II tool. No publications reporting validity/reliability testing of the RCA tool could be found.

Consultation with the primary author at Ohio State University in USA confirmed the tool has not undergone psychometric testing (email communication B. Melynk, Dec. 13, 2014).

3.4.2 First Level Critique

An independent appraisal of each guideline using the two standardized tools was completed by the graduate nursing student. This was followed by an inter-rater reliability check by the academic supervisor. Revisions were made and results of this first-level analysis were then shared with the two ACNSs on the evaluation team. Rather than completing a comprehensive independent critique, ACNSs reviewed the initial critique, offered recommendations about the guideline quality, relevance and content and gave input about resources and ostomy care issues specific to Qatar.

3.4.3 Second Level Critique

In the ensuing 2nd level analysis, data from the individual critique of RNAO and WOCN guidelines were synthesized by the graduate nursing student and used to inform the recommendation to adopt or adapt elements of one or both guidelines. Strengths and weaknesses of each guideline were appraised specific to content, relevance and quality. A composite summary was created structured around the domains of AGREE II tool [18].

3.5 Recommendation to Adapt Guideline

Adopting a guideline means accepting all of its content, including recommendations [22]. However, if all of the content or recommendations in the guideline are not considered relevant to local contexts, the evaluation team selects information considered applicable and reformats

it into a new guideline. This is the process of adapting guidelines [22]. Following review and appraisal of both RNAO and WOCN guidelines, a recommendation was made to adopt with revision (adapt), the RNAO best practice guideline (BPG) on ostomy care and management and to adopt select parts of the WOCN guideline.

3.6 Local Guideline Drafted

Following the comprehensive review and critique of the Canadian and American guidelines [16, 17], the graduate student, acting as project lead, recommended adaptation of the RNAO guideline with additions from the WOCN guideline for use in Qatar. The revised guideline included 19 of 26 recommendations from the RNAO guideline and the pre-operative ostomy education component from the WOCN.

3.7 Input from Internal Stakeholders Obtained

As recommended by the CAN-implement authors [7], the adapted BPG was presented to internal stakeholders on the guideline evaluation team for their input and approval. Besides obtaining the perspective of the two ACNSs and senior colorectal-oncology surgeon, advice from clinical pharmacologists was sought. Pharmacists suggested including the generic name, along with the medication category, in the medication flow sheet to ensure patient understanding. Other suggestions included: (1) eliminating sensitive information from the sexual information sheet to avoid cultural inappropriateness; (2) presenting nutritional management tips in user-friendly language to ensure information is understandable to users; and (3) translating the patient information sheets to local languages to be useful to consumers.

3.8 Guideline Revised According to Stakeholder Input

Feedback from internal stakeholders was incorporated into the final guideline adaptation. Final approval to proceed with the implementation of the proposed guideline into local practice was received from the clinical lead of colorectal services and ACNSs.

3.9 Final Document Prepared According to Policy

Preparing the final document for internal use in local contexts required consideration of style, format and branding issues to ensure a standardized appearance with other practice guidelines (BPGs) in the organization.

3.10 Review and Revision Process of Local Guideline Specified

Organizational policy and procedure specific to each health care centre will inform decisions about revision processes. For instance, the organization targeted for ostomy BPG implementation requires that guidelines be reviewed every three years or earlier if new evidence is published, a problem is identified or there is a change

in operational, administrative or clinical practice. The graduate student (now employed as an ACNS in the organization), will regularly monitor internal, local, regional and international practices. She will also be on the lookout for new clinical practice guidelines, systematic reviews and randomized controlled trials pertaining to ostomy care and management. Continuing consultation with internal and external experts in ostomy and colorectal cancer care will be essential to ensure the most current evidence from new studies, grey literature and/or unpublished trials is considered in guideline revisions [10].

4. Discussion

4.1 Ostomy Guideline Implementation in the GCC Health System Context

Having completed the phase 1 critique of two international guidelines, the next steps in the CAN-Implement model, namely, phase 2 solution building and phase 3 implementation, evaluation and sustainability, require attention to local contextual variables that influence use of the adapted guideline. Priority activities focus on assessing the organizational and cultural context into which the guideline will be introduced.

4.1.1 Organizational Challenges and Opportunities

Careful analysis of organizational policies, stakeholder involvement and resource implications need to be considered before guideline implementation and evaluation can proceed. At the health care corporation in Qatar targeted for guideline implementation, policy approval must be obtained from the quality management department and corporate policy chapter committees (CPCCs). Final decision-making authority regarding the introduction of any proposed guideline (whether new or revised) resides with these bodies. Following signed approval of the CPCC lead officer, the proposed guideline is then submitted to the regulatory, accreditation and compliance services (RACS). At this level, a corporate memo is generated confirming the guideline meets standardized criteria. It is then forwarded to the Chief Executive Officer of the organization where final sanction is obtained before posting on the hospital intranet. These policies are intended to ensure consistent practice regarding guideline approval processes in the organization.

The involvement of clinical experts, opinion leaders and relevant internal stakeholders is critical in all phases of the guideline implementation and evaluation process. Input and expert knowledge of two clinical nurse specialists, two clinical pharmacists and a surgeon from the colorectal team helped to ensure guideline content and implementation - evaluation plans were realistic and practical. External personnel with expert knowledge of ostomy care and implementation science were identified who could provide problem-solving assistance or consultative guidance as required. Throughout this initiative, liaison occurred between the graduate nursing student and international

experts whose resource materials had guided each stage of the project [7, 16, 17].

A budgetary plan specifying implementation and evaluation expenses is integral to any guideline project. This will require consideration of production, distribution, marketing, education and evaluation costs. To promote fiscal responsibility, existing human resources in the organization were identified to support the implementation and evaluation of the adapted ostomy guideline. For instance, nurse educators will be involved in teaching staff on the two surgical floors, surgical intensive care unit (SICU) and operating theatre where most of the ostomy care is provided. The initial training will be delivered in a four-hour intensive workshop. Staffing needs in these units may need to be temporarily increased until the education of all nurses is complete. An evidence-based practice champion (EBPC) on each unit will be identified, who possesses excellent interpersonal skills and knowledge competencies specific to ostomy care. EBPCs will attend a one-day intensive workshop to prepare them to act as unit-based resources. This "train-the-trainer" approach [23] is intended to promote effective resource utilization, as well as staff engagement in the change process. The graduate student (now ACNS) will act as resource to EBPCs who are assuming a leadership and mentoring role in supporting the implementation of the ostomy guideline at the unit level. Recognition and feedback to EBPCs is deemed important at this early stage of guideline implementation as it represents the movement towards a culture of evidence-based practice.

4.1.2 Gap Analysis

After policy, stakeholder and resource issues have been considered, experts suggest an internal gap analysis be conducted to clarify what and how much needs to be changed in existing practices and systems to support effective guideline implementation [7]. A gap analysis involves assessing the degree of congruence between current ostomy care practices and guideline recommendations. Practice variations related to ostomy care uncovered in the analysis will inform planning decisions regarding practice change, educational content, implementation strategies and timelines. On the other hand, current ostomy practices that are consistent with the guideline will be the focus of positive feedback.

In the preliminary gap analysis, the project lead noted that nurses working in the four units treating patients with stoma do not all have knowledge of ostomy risk factors and peristomal complications. This will become part of the educational content during the guideline training. The gap analysis also uncovered variance between current professional practice and recommendations related to colostomy irrigation and use of suppositories. This content will also be incorporated into the guideline training.

Besides identifying professional practice variance, an organizational gap analysis may also uncover deficiencies

related to resources and/or health system capacity. For example, a resource issue apparent in this project was related to the heavy workload of the two ACNSs in the GI and colorectal cancer program. Both provide the ostomy care support in the organization and both have similar roles to that of Enterostomal Therapy Nurses (ETNs). Their role begins pre-operatively and continues throughout the post-operative and follow-up phase of the patient's care trajectory. A future consideration may be to delegate ostomy care to the wound care team or to hire certified ETNs. Whoever performs the role of ostomy specialist assumes responsibility for ensuring high standards of ostomy care through consultation, education, collaboration and team coordination in order to promote consistency and continuity of care amongst all multidiscipline staff.

With respect to health system capacity, limited information is available about the role of home care services in Qatar related to the post-discharge needs of new ostomy patients. This gap, related to care continuity following hospitalization, represents an important area for further exploration and improvement.

As the change process evolves, it will be important to identify facilitators and enablers likely to foster implementation success. Understanding barriers will enable the team to plan effective strategies to address obstacles that might interfere with effective implementation. Recognizing facilitators will provide insight about the forces likely to result in successful implementation [7]. The implementation strategy for the ostomy care and management guideline for local use will be informed by data obtained from the steps previously described. That is, input from project advisors, budgetary planning, resource availability and unit-based gap analysis, as well as barriers and enablers will shape implementation decisions.

4.1.3 Evaluation/Monitoring

Evaluating the effective use of new guidelines requires consideration of organizational capacity, resource needs and monitoring strategies. To assess the outcomes of the ostomy guideline implementation in the Qatar health care corporation, clinical observations and monitoring activities will be used to evaluate nurses' compliance with the guideline and skill competencies related to stoma care. Patient outcomes, as assessed by indicators such as stoma complications, infection and readmission rates, will also be monitored, even though it is acknowledged that direct cause-effect inferences cannot be confirmed between nurses' compliance with the guideline and these outcome indicators.

Process variables associated with the evaluation of the education phase of the guideline implementation may include: (1) number of staff who attended the training sessions; (2) number of units involved in the training; (3) hours spent in training sessions; and (4) resources used in the training process.

Outcome variables that will be assessed related to the education include: (1) staff knowledge and skill related to the guideline content; (2) guideline utilization and provider compliance with the standard of care, (3) staff satisfaction with the teaching/learning process, (4) staff satisfaction with access to resources during regular hours and after hours.

Other potential evaluation methods could include chart audits, informal interviews with staff and patients, as well as anecdotal comments collected in unit log books. These data will provide baseline information that can be used for comparison over time. A mechanism will be established to ensure the tracking, reporting and resolution of problems encountered by staff and to record gaps in guideline content.

4.1.4 Sustainability

Sustainability of the ostomy practice guideline is at risk if knowledge contained within it becomes outdated or irrelevant to current practice and if point-of-care practitioners do not see the value of integrating best practice principles into their daily care giving activities. Sustainable change will be easier to maintain if guidelines are embedded into electronic documentation and decision supports within the organization [24]. The project lead (entry level ACNS) will explore how the ostomy guideline can be linked with the clinical information system currently being implemented in the corporation.

4.2 Ostomy Guideline Implementation in the GCC Cultural Context

As noted previously, rates of colorectal cancer are increasing in Qatar [25, 26] and clinician interest in standardizing treatment practices has become a national priority [2, 9, 27]. Besides considering the health system context, guideline implementation must consider the demographic, cultural and religious context into which the guideline is introduced.

4.2.1 Cultural Challenges and Opportunities

The total population in Qatar is just under 2.5 million [28]. About 80% live in the capital city of Doha and another 10% live in other urban areas of the country [29]. Population demographics reflect a diverse cultural mix. Arab nationals (approximately 0.3 million) comprise less than 15% of the population. The vast majority of the population consists of expatriates from multiple countries. Indians and Nepalese represent the largest groups (1 million combined) and Filipinos and Egyptians (0.4 million combined) are the other most prevalent cultural groups.

Over 75% of people living in Qatar practice the Islamic faith; there is a mix of Arab and non-Arab Muslims. Christians (8.5 - 10%) and other religions, such as Hinduism and Buddhism make up the remaining population. Similar to neighboring GCC countries, Qatar has a high proportion of young male construction workers from low income

countries in the Eastern Mediterranean, South-East Asia, Western Pacific and African regions. As a result, there is a disproportionate male:female ratio (75:25) [28].

As Islam is the dominant religion in this culturally diverse country, a challenge for health professionals is to understand how culture and religion influence health, self-concept and response to illness. Authors note that spiritual affiliation and strength of faith are basic elements of one's cultural identity [30]. Though there is abundant research describing the cultural and religious aspects of caring for Muslim patients [31, 32, 33, 34, 35], there is scarce evidence describing Muslim patients' stressors and responses to stoma surgery.

In multicultural, Muslim societies such as Qatar, the provision of culturally competent care requires that health professionals provide individualized, holistic care that attends to the spiritual, cultural, psychosocial, interpersonal and clinical needs of all persons [35]. Cultural competence involves integrating cognitive and affective components essential for establishing culturally-relevant relationships between patients and providers [36].

The preliminary gap analysis completed for this local guideline adaptation project, revealed that health care providers, including staff nurses and physicians, do not consistently perform comprehensive patient/family assessments on persons with ostomy. The focus of assessment tends to be on physical aspects of care (e.g. stoma site, signs and symptoms). Less attention is directed to psychosocial, sexual, cultural, spiritual, and religious assessment. Dieticians, pharmacists, physiotherapists and social workers are not regularly involved in patient consultation. Project team members recognized that these disciplines should become part of the colorectal team.

Gap analysis also revealed that all patients may not receive similar information in the pre-operative phase of care. For instance, those who do not speak one of the dominant languages (Arabic or English) may miss formal pre-op education. Self-care practices related to ostomy management may vary within and between cultural groups or religions. Evaluation measures have not been formalized to assess patient/family understanding of self care practices that ensure safe, proficient use of ostomy products and appliances. These issues represent targets for improvement.

Beyond cultural and spiritual factors, other demographic variables challenge the provision of culturally competent care. For instance, language, income and education level are crucial issues to assess in Qatar since a large proportion of the population are migrant workers who do not speak Arabic or English. This may impede the ability of professionals to communicate and deliver consistent information to all patients. Culturally appropriate services (education, counselling, resources, supports) that

consider language and literacy levels must be thoughtfully planned and customized for patients and families. Studies of expatriate workers in Kuwait with cancer revealed that language negatively impacted the adequacy of oncology care for both Arab-speaking and non-Arab speaking patients. This relates to the fact that, similar to Qatar and other GCC countries, many expatriate health care professionals do not speak Arabic or other languages of patients [37, 38].

Literature indicates the main challenges specific to ostomy care and religious beliefs of Muslims evolve around hygiene and prayer, gender and modesty, as well as sexuality and body image. Following stoma surgery, the individual's body image and/or self esteem may be altered; perceptions of attractiveness may have changed and feelings about sexuality may be negatively impacted [16,39]. These issues may be particularly relevant for women, owing to the ideals that society places on them to reflect a positive sexuality and attractive body image [40]. A Jordan study of Muslim women experiencing bodily changes during critical illness distinguished three areas of patient concern: the physical body, the social body and the cultural body [41]. Jordanian women's dependence on health professionals for physical care was perceived as reduced performance and bodily strength which triggered feelings of shame, burden and helplessness. An altered physical condition was seen by the women as an inability to contribute normally to family role functions which induced feelings of social inadequacy. Female Muslim participants also viewed physical illness as a threat to their cultural identity due to Islamic beliefs, customs and expectations regarding women's role in the family and community.

Having an ostomy forces an individual of the Islamic faith to confront and adapt to issues pertaining to religious customs. For Muslims, stoma formation may interfere with their daily prayer rituals. They must ensure the cleanliness of their clothes, physical body and place of prayer (5 times / day); the practice of washing [ablution] prior to prayer, after sexual intercourse, urination and defecation is rooted in Islamic ideology [42]. Muslim patients with ostomy may experience spiritual conflict, not only by the sight of bodily fluids, but by the perception that they are "unclean".

Research has documented that Muslim patients with stoma report a more negative quality of life than non-Muslim patients. This has been attributed to their cessation of daily washing rituals, mosque visits and prayers. Study participants conveyed that physiologic factors, such as uncontrolled flatus and visible faeces, resulted in their inability and/or unwillingness to observe normal religious customs specific to prayer. As a result, they experienced social isolation and decreased quality of life [42]. This reinforces that Muslim patients with ostomy face unique cultural and religious challenges that may induce intense conflict and stress. Guideline content must include comprehensive assessment, as well as resources and services to address the unique psychosocial and spiritual support needs of patients.

Privacy, modesty and dignity issues, important to all people regardless of culture or religion, may have special significance to Muslim patients with ostomy. Muslim custom related to modesty requires that clothing cover the entire body, neck and head and must not be tight, sheer or unduly conspicuous. Muslim apparel and adherence to modest dress standards may be a source of comfort to a person with ostomy, serving to limit public scrutiny or perceived exposure of his/her altered physical body. Islamic modesty rules also place restrictions on privacy, the mention of bodily functions and gender relationships [43]. For example, direct eye contact with the opposite sex outside the family is forbidden for some Muslims and same-sex medical care providers are generally preferred.

Islamic tradition posits that one's privacy is integral to his/her dignity [44]. Evidence indicates that "Muslim women specifically and Arab women in general do not tolerate unnecessary exposure of their bodies" [45]. Externalizing the bowel may have a devastating impact on a Muslim woman's self-image and personal sense of dignity. Because it is not customary for people of the Muslim faith to discuss sensitive issues related to bodily functions [43, 46], psychological, social, and religious supports should be available to assist individuals to disclose feelings about altered body image following stoma surgery [39]. On the other hand, research has shown that strong religious affiliation can have a positive effect on body image, possibly by redirecting judgments about self-worth away from appearance and towards moral and ritualistic pursuits relevant to an individuals' faith [47]. The 21 countries in the Eastern Mediterranean Health Region [48] are Muslim-dominant societies. However, varied geo-political, economic and social factors, coupled with demographic diversity, make it impossible to predict with certainty whether an ostomy guideline adapted in Qatar will be relevant to the entire Middle East region. To assess the relevance of the Qatar ostomy guideline to other areas of the Middle East, clinical stakeholders in those countries should engage in a collaborative interdisciplinary appraisal process similar to that described in this paper. Because Qatar is the first GCC state to take lead in developing and implementing guidelines for ostomy care, this small Arabian Gulf country may become a centre of excellence for best practice in this field, possibly attracting the attention of neighboring countries. We envision that the introduction of an ostomy care and management guideline in Qatar for use by nursing and allied health professionals will be complementary to the medical guideline for colorectal cancer available through the National Institute for Health and Care Excellence (NICE) that serves as a practice standard for GCC and Middle East colorectal surgeons [49]. Integration of both guidelines is expected to be the beginning of a new era of best practice for colorectal cancer and ostomy care consistent with the national vision to create a world class health system [27].

5. Conclusion

Experts all agree that clinical practice guidelines developed in one part of the world may be difficult to implement in another geographic region. This paper has summarized the systematic steps involved in appraising the quality, content and relevance of two different ostomy guidelines developed in North America to the Middle East context. The goal was to produce a guideline for use by health care professionals employed in one major health corporation in the GCC state of Qatar. The process involved systematic procedures, standardized critiquing instruments and input from interprofessional team members. The initiative enabled a graduate nursing student to assert her leadership by actively liaising with international experts in EBP, BPGs and ostomy care. It also provided an opportunity for her to engage locally with interprofessional colleagues and to involve them in decision-making to define and shape best practice. The ultimate goal was to ensure a practice guideline exists to foster the delivery of quality care to patients with ostomy. The resultant guideline adaptation is expected to support optimal health outcomes, healthy adjustment, effective self-care abilities, bio-psycho-social-spiritual well-being and a positive quality of life, thereby helping patients face the challenges of living with ostomy with confidence and independence. The adapted ostomy care and management guideline is intended for use by staff involved in care of patients in the preoperative, postoperative and rehabilitation period. Completing implementation and evaluation of this guideline in the local context is the next immediate step. A future priority will be to assess the need for patient-specific ostomy guidelines.

Acknowledgement

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