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WOUND, OSTOMY AND CONTINENCE
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INFIRMIÈRES SPÉCIALISÉES EN
PLAIES, STOMIES ET CONTINENCE
CANADA

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FEATURED ARTICLES

In-Home Management of Skin Tears by Community Paramedics: A Case Series
Report From a Novel Pilot Intervention

Ostomy Assessment Systematic Integration of Studies (OASIS): Maternal,
Child, and Youth Assessment Scoping Review

Ostomy Assessment Systematic Integration of Studies (OASIS): Physical Assessment
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Prise en charge à domicile des déchirures cutanées par des paramédics
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Intégration systématique des études sur l'évaluation des stomies (OASIS) :
examen de la portée de l'évaluation auprès des mères, des enfants et des jeunes

Intégration systématique des études sur l'évaluation des stomies (OASIS) :
examen de la portée de l'évaluation physique

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Le Journal canadien en plaies, stomies et continence (JCPSC) est la publication officielle des Infirmières spécialisées en plaies, stomies et continence Canada (ISPSCC). Il est publié trois fois par année. Nous acceptons des contributions sous forme de nouvelles professionnelles, de revues de la littérature, projets de recherche, d'articles cliniques, d'études de cas, de rapports, de revues d'articles, de questions pour la section clinique et de lettres à l'éditeur. Les articles de fond et les études de cas sont évalués par des pairs et doivent être soumis sur www.cjwoc.ca.

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3 Cutting K. Made Easy - Cutimed Sorbion Sachet. Wounds International. 2016.
4 Cutting KF. Managing wound exudate using a super-absorbent polymer dressing: a 53-patient clinical evaluation. J Wound Care 2009;18(5):200-205.

Message from the Editor-in-Chief • Message de la rédactrice en chef



Lina Martins, MScN, BScN, RN, NSWOC, WOCC(C), FNSWOC
Editor-in-Chief,
Canadian Journal of Wound,
Ostomy and Continence

Back-to-School Message and Invitation to Become a Peer Reviewer

With the end of summer comes the start of a new academic and professional year. Welcome to our new students, the next generation of wound, ostomy, and continence care professionals and skin wellness leaders, and welcome back to all NSWOCs and SWANs!

This issue of the CJWOC offers an excellent opportunity to continue our professional development. It includes a scoping review, by Heerschap et al., of the evidence related to ostomy assessment in pregnant women, as well as in paediatric and adolescent populations. This review is part of the OASIS study (Ostomy Assessment Systematic Integration of Studies). Several topics of interest are explored, including pregnancy with an ostomy, the needs of families and caregivers, challenges experienced by young people living with an ostomy, and the management of ostomies and their complications in paediatric populations.

A second article, by Boehringer, Summers, Leyenaar, Verstreken, describes a pilot project conducted in a rural setting, in which community paramedics provided at-home care for skin tears in older adults. The results of this project were positive and promising.

The evaluation of the information and updates presented in the CJWOC would not be possible without the involvement of peer reviewers. These individuals volunteer their time to review manuscripts submitted to the journal, helping to ensure and enhance their quality. We are always looking for colleagues who are interested in becoming peer reviewers and contributing to the review of manuscripts submitted to the journal. If you are interested in getting involved, please do not hesitate to contact us. We would be delighted to guide you through the peer review process.

Wishing everyone a wonderful start to the new academic and professional year! •



Louise Forest-Lalande, inf., M.Ed., NSWOC, FNSWOC
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Journal canadien en plaies,
stomies et continence

Message de la rentrée et invitation à devenir évaluateur par les pairs.

Avec la fin de l'été vient le temps de la rentrée, tant sur le plan académique que professionnel. Bienvenue aux étudiants inscrits au programme d'infirmier(e)s spécialisées en soins de plaies, de stomies et de continence (ISPSC) ainsi qu'à la formation de leaders en soins de la peau (SWAN), notre relève, et bon retour à toutes les ISPSCs et leaders en soins de la peau (SWANs)!

Cette publication du JCPSC nous offre une belle occasion de poursuivre notre développement professionnel. Vous y trouverez une revue de portée par Heerschap et coll. sur les données probantes relatives à l'évaluation des stomies chez la femme enceinte ainsi que chez les populations pédiatrique et adolescente. Cette revue s'inscrit dans le cadre de l'étude OASIS (Ostomy Assessment Systematic Integration of Studies). Plusieurs thèmes d'intérêt y sont abordés, notamment la grossesse avec une stomie, les besoins des familles et des soignants, les enjeux vécus par les jeunes personnes stomisées, ainsi que la prise en charge des stomies et de leurs complications chez la clientèle pédiatrique.

Un second article de Boehringer, Summers, Leyenaar et Verstreken décrit un projet pilote mené en milieu rural, dans lequel des ambulanciers communautaires ont pris en charge à domicile des déchirures cutanées chez des personnes âgées. Ce projet s'est révélé positif et prometteur.

L'évaluation des informations et des mises à jour présentées dans la revue JCPSC seraient impossible sans l'implication de pairs. Ces personnes s'impliquent bénévolement en révisant les manuscrits soumis au journal de façon à **en assurer** et améliorer la qualité. Nous sommes toujours à la recherche de collègues intéressés à agir comme évaluateurs pour réviser les manuscrits qui nous sont soumis. Si cette collaboration vous intéresse, n'hésitez pas à communiquer avec nous, c'est avec plaisir que nous vous guiderons dans ce processus d'évaluation par les pairs.

Bonne rentrée à tous! •

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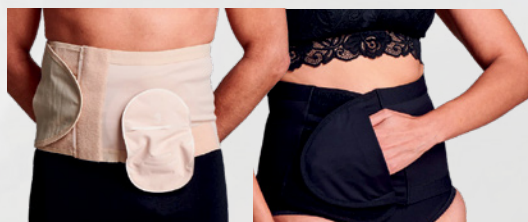
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Message from the NSWOCC President • Message de la présidente de l'ISPSCC



Bev Smith, RN, BScN, NSWOCC
President, Nurses Specialized in
Wound, Ostomy and Continence
Canada (NSWOCC)

Présidente de l'association des
Infirmières spécialisées en plaies,
stomies et continence Canada (ISPSCC)

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Dear NSWOCC Members,

As I begin my term as President of Nurses Specialized in Wound, Ostomy and Continence Canada (NSWOCC), I feel tremendous pride, gratitude, and renewed energy. This year marks an important milestone for our association—one shaped by transition, strategic renewal, and a shared commitment to advancing specialized nursing across Canada.

I want to express my sincere appreciation to our outgoing President, Corey Heerschap. Corey has been a pillar of our NSWOC community for many years, contributing his expertise, leadership, and passion through key roles on the Board of Directors and within the Wound, Ostomy and Continence Institute. His exceptional two-year term as President strengthened our association and championed innovation in clinical practice. I am deeply grateful for his mentorship and support as I step into this role.

This year also marks a significant moment in our executive leadership. After 22 years of dedicated service, Catherine Harley retired as Chief Executive Officer in May 2026. Cathy's visionary leadership, strong advocacy, and operational excellence helped shape NSWOCC's evolution—from major organizational milestones to the strengthening of our national profile. Her impact on our profession is profound, and we wish her a joyful and well-deserved retirement. With this transition complete, I look forward to working collaboratively with our new CEO as we continue advancing the next phase of NSWOCC's growth.

Our Board of Directors brings remarkable expertise and dedication to their roles. Their leadership will support our rapidly expanding membership, which now exceeds 1,600 members—including more than six hundred Nurses Specialized in Wound, Ostomy and Continence and a vibrant, growing network of Skin Wellness Associate Nurses. Together, we remain committed to strengthening our trispecialty, supporting your clinical practice, and fostering an inclusive and collaborative community.

Education continues to be a cornerstone of our mission. This year, members can look forward to a dynamic and interactive educational calendar, including a diverse series of webinars designed to deliver innovative clinical knowledge, emerging research, and practical troubleshooting. These sessions are developed in close partnership with our industry colleagues, whose support enables us to provide accessible, high-quality learning opportunities.

Looking ahead, planning is underway for the NSWOCC 46th National Conference, taking place in Halifax, Nova Scotia from May 12–16, 2027. As my home province, Nova Scotia holds a special place in my heart, and I am thrilled to welcome our national community to this world-class coastal city.

To our Board, faculty, operational staff, and most importantly, to you—our members—thank you. Your dedication to improving the lives of individuals living with complex wound, ostomy, and continence needs is the driving force behind NSWOCC's impact. I'm honoured to serve as your President and look forward to all we will achieve together. •

Message from the NSWOCC President • Message de la présidente de l'ISPSCC

Chers membres de l'ISPSCC,

Alors que j'entame mon mandat à titre de présidente d'Infirmières spécialisées en plaies, stomies et continence Canada (ISPSCC), je ressens une immense fierté, une profonde gratitude et un regain d'énergie. Cette année marque une étape importante pour notre association, caractérisée par une période de transition, un renouvellement stratégique et un engagement commun à faire progresser les soins infirmiers spécialisés partout au Canada.

Je tiens à exprimer ma sincère reconnaissance à notre président sortant, Corey Heerschap. Depuis de nombreuses années, Corey est un pilier de notre communauté d'ISPSC, mettant son expertise, son leadership et sa passion au service de notre organisation dans le cadre de fonctions clés au sein du conseil d'administration et de l'Institut des plaies, stomies et continence. Son remarquable mandat de deux ans à titre de président a renforcé notre association et favorisé l'innovation dans la pratique clinique. Je lui suis profondément reconnaissante pour son mentorat et son soutien alors que j'assume ces nouvelles fonctions.

Cette année marque également un moment important pour notre direction générale. Après 22 années de service dévoué, Catherine Harley a pris sa retraite de son poste de directrice générale en mai 2026. Le leadership visionnaire de Cathy, son engagement soutenu en matière de défense des intérêts et son excellence opérationnelle ont contribué à façonner l'évolution de l'ISPSCC, qu'il s'agisse de grandes étapes organisationnelles ou du renforcement de notre présence à l'échelle nationale. Son influence sur notre profession est considérable, et nous lui souhaitons une retraite heureuse et pleinement méritée. Cette transition étant maintenant achevée, je me réjouis à l'idée de travailler en étroite collaboration avec notre nouvelle directrice générale afin de poursuivre la prochaine phase de croissance de l'ISPSCC.

Notre conseil d'administration réunit des personnes qui apportent à leurs fonctions une expertise et un dévouement remarquables. Leur leadership contribuera à soutenir notre nombre de membres en pleine croissance, qui dépasse maintenant 1 600 personnes, dont plus de 600 infirmières spécialisées en plaies, stomies et continence, ainsi qu'un réseau dynamique et grandissant d'infirmières associées en soins de la peau. Ensemble, nous demeurons déterminés à renforcer notre expertise dans nos trois spécialités, à soutenir votre pratique clinique et à favoriser une communauté inclusive et collaborative.

L'éducation demeure une pierre angulaire de notre mission. Cette année, les membres pourront profiter d'un calendrier éducatif dynamique et interactif, comprenant une série diversifiée de webinaires conçus pour présenter des connaissances cliniques novatrices, les plus récentes recherches ainsi que des solutions pratiques aux problèmes rencontrés dans la pratique. Ces séances sont élaborées en étroite collaboration avec nos partenaires de l'industrie, dont le soutien nous permet d'offrir des possibilités d'apprentissage accessibles et de grande qualité.

En prévision de l'avenir, la planification du 46e Congrès national de l'ISPSCC, qui aura lieu à Halifax, en Nouvelle-Écosse, du 12 au 16 mai 2027, est déjà en cours. Puisque la Nouvelle-Écosse est ma province natale, elle occupe une place toute particulière dans mon cœur, et je suis ravie d'accueillir notre communauté nationale dans cette ville côtière de calibre mondial.

À notre conseil d'administration, à notre corps professoral, à notre personnel des opérations et, surtout, à vous, nos membres, merci. Votre dévouement à améliorer la vie des personnes ayant des besoins complexes en matière de plaies, de stomies et de continence est la force motrice derrière l'impact de l'ISPSCC. C'est un honneur pour moi d'être votre présidente, et je me réjouis de tout ce que nous accomplirons ensemble. •

Message from the NSWOCC National Office • Message du Bureau national de l'ISPSCC



Troy Curtis, BHum (Hons)

Chief Operating Officer,
Nurses Specialized in Wound,
Ostomy and Continence Canada
(NSWOCC)

Directeur des opérations,
Infirmières spécialisées en plaies,
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The past six months have been an extraordinary period of celebration, transition, and reflection for NSWOCC®, beginning with the WCET®-NSWOCC® Joint Congress in Vancouver. We were privileged to welcome colleagues from across Canada and around the world to learn, exchange ideas, showcase research and innovation, and celebrate our tri-specialty. Among the many highlights was the induction of our 2026 NSWOCC Fellows: Britney Butt, Karen E. Campbell, Shannon Handfield, Debra Johnston, and Anna Tumchewics. NSWOCC also presented an Honorary NSWOCC Fellowship to Cathy Harley, a fitting recognition as she prepared to retire on May 1 following 22 years of leadership and service to NSWOCC. Cathy played an extraordinary role in building the organization we know today, and we remain deeply grateful for her contributions.

Congress also marked a new chapter in our leadership. At the Annual Members Meeting on April 25, we welcomed Bev Smith as President, Joshua Moralejo as President-Elect, and our newly elected and returning Board Directors. We thank our outgoing and continuing leaders for volunteering their time in service to our members and profession.

Since Vancouver, our work has continued. NSWOCC and the International Skin Tear Advisory Panel (ISTAP™), with support from Indigenous Services Canada, launched the Evidence-Based Skin Tear Assessment and Classification Toolkit for Indigenous Skin Tones. We sincerely thank expert panel members, along with validation participants and everyone who contributed their knowledge and lived experiences. A webinar series is now sharing these resources and their development with healthcare professionals. This work comes as we also proudly celebrate 10 years of partnership between NSWOCC and ISTAP.

This September, we also celebrated SWAN® Week 2026 under the theme “Quality Improvement SOARS with SWANs!” With more than 500 active SWANs and SWAN students, we are proud to recognize their integral role in advancing quality improvement in wound, ostomy and continence care.

As an NSWOCC family, however, we share not only our accomplishments but also our losses. In August, we were deeply saddened by the passing of Norena Gonzales, RN, BScN, NSWOC, WOCC(C). Norena demonstrated extraordinary perseverance in becoming an NSWOC while undergoing treatment for advanced cancer and continued supporting people living with an ostomy even when her health no longer allowed her to work. Norena worked extraordinarily hard to become an NSWOC, but more importantly, she showed us what it meant to be one.

Through celebration, transition, innovation, and loss, these past months have reinforced that the strength of NSWOCC comes from its people. As we look toward the future, we are excited to bring our community together again for the NSWOCC 46th National Conference, May 12–16, 2027, in Halifax, Nova Scotia, under the theme “Catch the Wave in Halifax! Navigating the Future of Wound, Ostomy and Continence Care.”

Thank you to our members, volunteers, Board, WOC Institute faculty and students, partners, and friends for everything you contribute to our community. After an extraordinary six months, we look forward to continuing this journey together and to seeing many of you in Halifax. •

Message from the NSWOCC National Office • Message du Bureau national de l'ISPSCC

Les six derniers mois ont constitué une période exceptionnelle de célébration, de transition et de réflexion pour l'ISPSCC®, à commencer par le Congrès conjoint WCET®-ISPSCC® à Vancouver. Nous avons eu le privilège d'accueillir des collègues de partout au Canada et du monde entier afin d'apprendre, d'échanger des idées, de présenter des recherches et des innovations, et de célébrer nos trois spécialités. Parmi les nombreux moments marquants figurait l'intronisation de nos fellows de l'ISPSCC 2026 : Britney Butt, Karen E. Campbell, Shannon Handfield, Debra Johnston et Anna Tumchewics. L'ISPSCC a également décerné à Cathy Harley le titre de fellow honoraire de l'ISPSCC, une reconnaissance tout indiquée alors qu'elle se préparait à prendre sa retraite le 1er mai, après 22 années de leadership et de service auprès de l'ISPSCC. Cathy a joué un rôle extraordinaire dans la création et le développement de l'organisation que nous connaissons aujourd'hui, et nous lui sommes profondément reconnaissants pour ses nombreuses contributions.

Le Congrès a également marqué le début d'un nouveau chapitre pour notre leadership. Lors de l'Assemblée annuelle des membres, le 25 avril, nous avons accueilli Bev Smith à titre de présidente, Joshua Moralejo à titre de président désigné, ainsi que les membres nouvellement élus et réélus de notre conseil d'administration. Nous remercions nos dirigeants sortants et ceux qui poursuivent leur mandat d'offrir bénévolement leur temps au service de nos membres et de notre profession.

Depuis Vancouver, notre travail s'est poursuivi. L'ISPSCC et l'International Skin Tear Advisory Panel (ISTAP™), avec le soutien de Services aux Autochtones Canada, ont lancé la Trousse d'évaluation et de classification des déchirures cutanées fondée sur des données probantes pour les teintes de peau autochtones. Nous remercions sincèrement les membres du groupe d'experts, les participants au processus de validation ainsi que toutes les personnes qui ont contribué par leurs connaissances et leurs expériences vécues. Une série de webinaires permet maintenant de faire connaître ces ressources et leur processus d'élaboration aux professionnels de la santé. Cette initiative coïncide également avec la célébration, dont nous sommes très fiers, de dix années de partenariat entre l'ISPSCC et l'ISTAP.

En septembre, nous avons également célébré également la Semaine SWAN® 2026 sous le thème « L'amélioration de la qualité PREND SON ENVOL avec les SWAN! » Avec plus de 500 SWAN et étudiants SWAN actifs, nous sommes fiers de souligner leur rôle essentiel dans l'avancement de l'amélioration de la qualité des soins des plaies, des stomies et de la continence.

Cependant, en tant que famille de l'ISPSCC, nous partageons non seulement nos réussites, mais également nos pertes. En août, nous avons appris avec une profonde tristesse le décès de Norena Gonzales, IA, B. Sc. inf., ISPSC, WOCC(C). Norena a fait preuve d'une persévérance extraordinaire en devenant ISPSC tout en suivant un traitement pour un cancer avancé. Elle a continué à soutenir les personnes vivant avec une stomie même lorsque son état de santé ne lui permettait plus de travailler. Norena a travaillé avec une détermination exceptionnelle pour devenir ISPSC, mais surtout, elle nous a montré ce que signifie véritablement être une ISPSC.

Entre célébrations, transition, innovation et deuil, ces derniers mois nous ont rappelé que la force de l'ISPSCC réside dans ses membres. Alors que nous nous tournons vers l'avenir, nous sommes ravis de réunir à nouveau notre communauté à l'occasion du 46e Congrès national de l'ISPSCC, qui se tiendra du 12 au 16 mai 2027 à Halifax, en Nouvelle-Écosse, sous le thème « Prenez la vague à Halifax! Naviguer vers l'avenir des soins des plaies, des stomies et de la continence ».

Nous remercions nos membres, nos bénévoles, notre conseil d'administration, le corps professoral et les étudiants de l'Institut des plaies, stomies et continence, ainsi que nos partenaires et amis pour tout ce qu'ils apportent à notre communauté. Après six mois exceptionnels, nous avons hâte de poursuivre cette aventure ensemble et de retrouver bon nombre d'entre vous à Halifax. •

In it Together: Moving Mountains to Create a World of Better Wound, Ostomy and Continence Care - WCET®-NSWOCC® 2026 Joint Congress



John Gregory, IIWCC, ISWA
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Président d' Opencity Inc.

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With cloudless skies across Vancouver, we could clearly see the mountains which represented this year's WCET-NSWOCC Joint Congress theme: In it together – moving mountains to create a better world for wound, ostomy and continence care. This year's joint congress brought together clinicians, researchers, educators, and leaders from around the world for a unique educational experience designed to bridge science, practice, and culture – a theme that reflects both the diversity of our global community and the shared commitment that unites us.

In the opening ceremonies, we were warmly welcomed to these lands by local Tsleil-Waututh Elder Sam George and his brother Knowledge Keeper Les George, guided by the ancestors, and embraced by the diversity of nations gathering at the WCET-NSWOCC Joint Congress.

Through their conferences and programs, both host organizations blend a strong focus on both the art and science of wound, ostomy, and continence care. Dr. Emily Haesler notes that "health care, and especially nursing, is both a science and an art. While it is important that we pursue and engage with high-quality scientific inquiry, we must also acknowledge that clinical judgment, individualization of care, and the empathy required to provide holistic nursing care are a special art." We must encompass both art and science when we bridge the gap between clinical evidence and local practice implementation.

With that in mind, we were treated to new consensus evidence across topics as diverse as prevention and treatment of pressure injuries,¹ WCET ostomy guidelines,² exercise and physical activity after stoma surgery,³ and an early glimpse of paediatric ostomy recommendations. There was standing-room-only for the presentation on the new therapeutic skin and wound-cleansing document published by the International Wound Infection Institute.⁴ Dr. Dimitri Beeckman's poignant session debated the need for real-world evidence as part of an integrated research ecosystem to drive innovation, equity, and sustainability in wound care worldwide. He argues that organizations can play a pivotal role in connecting research, education, and policy to ensure global alignment in wound care standards. In the Norma Gill Foundation Keynote, Dr. Diane L. Krasner discussed the ongoing advocacy campaign to reframe unavoidable pressure injury as unpreventable skin failure. "The persistent misclassification of [skin failure] as a [pressure injury] is a categorical error with devastating ethical, economic, and personal consequences," wrote Dr. John La Puma.⁵

The Chief Executive Officer (CEO) of the Canadian Nursing Association (CNA), Dr. Valerie Grdisa, recognized the exemplary leadership of retired NSWOCC CEO Catherine Harley. "Cathy is the number one champion of promoting the value and impact of specialty trained and certified nurses on the [Network Leadership Council], and she will have a lasting legacy." Nothing epitomizes Cathy's legacy more than the Indigenous Core Program, which she first envisaged in 2016. We wish her the best in retirement. Additionally, Dr. Grdisa pledged that the SWAN program would be recognized as a CNA-accredited program.

While our many esteemed speakers and new NSWOCC fellows each have decades of expertise, the conference is far from the same old. We should be proud of how far our fields of wound, ostomy, and continence have evolved. When Dianne Garde chaired the first Canadian Association for Enterostomal Therapy (CAET) annual conference in Toronto back in 1982, we did not talk about skin tears, skin failure, Indigenous health equity, prehabilitation, paediatric ostomy, skin tones, wound

bed preparation, and so much more. The extent to which the field has advanced is evident through our lexicon and the growth of our clinical and scientific understanding.

For all our great achievements, there is no room for complacency. The Health Equity of Indigenous Communities session reinforced that Indigenous people in Alberta have higher odds of leaving the emergency room without receiving care and poorer outcomes.⁶ Indigenous Core Program coleads Bev Smith and Michelle Buffalo implore us to each read the In Plain Sight report.⁷ In moving mountains, we must acknowledge “that every individual person that comes to see you deserves to be treated fairly. Don’t assume, if you’re not sure, just ask,” concluded Bev Smith, incoming NSWOCC President.

The combined WCET®-NSWOCC® core planning team should be proud of the quality of the educational program for the congress. We look forward to sharing our journey through these lands together, to catch the next wave at the NSWOCC 46th National Conference in Halifax, Nova Scotia, in May 2027. In the meantime, let us remember to balance the art and science by bridging clinical guidelines, real-world evidence, and local implementation. ●

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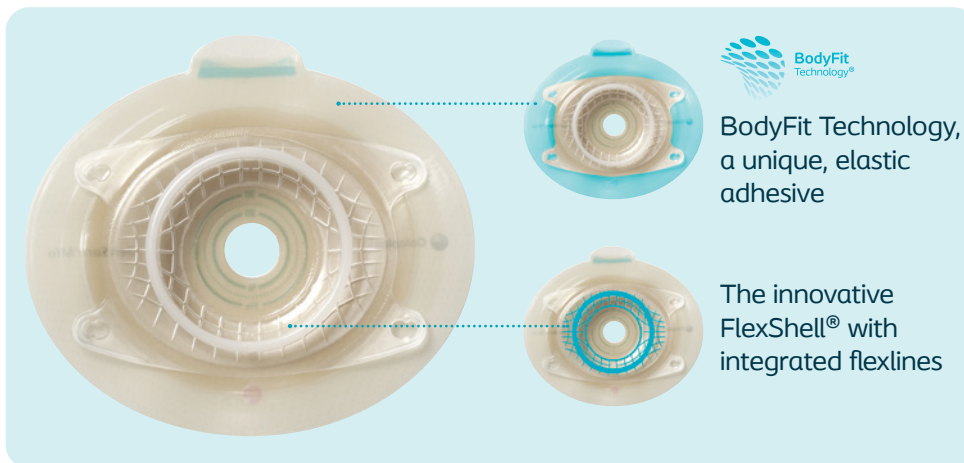
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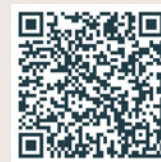


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NSWOCC President's Award



Dr. Corey Heerschap, NSWOCC President at the time of award presentation; Rosemary Hill, Recipient of the 2026 NSWOCC President's Award.

The NSWOCC President's Award represents one of the highest honours within our organization. It recognizes not only excellence in clinical practice, but also the kind of leadership, generosity, and dedication that shapes our profession, strengthens our community, and improves the lives of the patients we serve.

The 2026 recipient is a nurse whose influence extends far beyond her day-to-day role. She has contributed to clinical excellence, education, and leadership in ways that have strengthened our specialty and elevated care for patients across communities. Her leadership within NSWOCC has helped shape the organization over time, and her contribution continues to be felt today.

Many of us have been influenced by her mentorship, collaboration, or simply by the example she sets. She truly embodies the spirit of this award. I have the great honour of awarding Rosemary Hill with the 2026 NSWOCC President's Award. ●

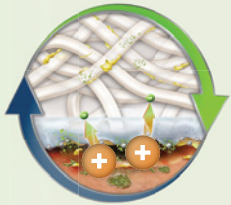
Corey Heerschap, PhD, MScCH, RN, NSWOC, WOCC(C), FNSWOC
Past President, NSWOCC

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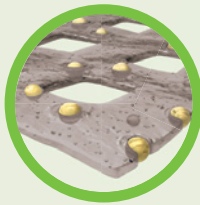
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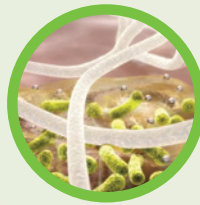
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Recognizing Excellence and Leadership: The 2026 Fellows in Nursing Specialized in Wound, Ostomy and Continence



Top row (left to right): Britney Butt, Karen E. Campbell, Shannon Handfield. Bottom row (left to right): Joshua Moralejo accepting for Debra Johnston, Anna Tumchewics. Bottom row (far right): Honorary Fellow, Catherine Harley.

Established May 2025, the Fellowship in Nursing Specialized in Wound, Ostomy and Continence was launched in order to provide recognition of those certified NSWOCs who have made exemplary contributions to the wound, ostomy and trispecialty throughout their career. These individuals have been nominated by their peers based on their outstanding practice, leadership and influence. This past April 2026, Nurses Specialized in Wound, Ostomy and Continence Canada (NSWOCC®) celebrated the induction of its second cohort of Fellows, who have been recognized with the FNSWOC (Fellow in Nursing Specialized in Wound, Ostomy and Continence) designation recognizing a distinguished group of nursing leaders whose careers have advanced wound, ostomy and continence care in Canada and beyond.

The 2026 Fellows were inducted during the WCET®-NSWOCC® Joint Congress in Vancouver, British Columbia. The 2026 cohort includes Britney Butt, Karen E. Campbell, Shannon Handfield, Debra Johnston, and Anna Tumchewics, each of whom bring unique achievements and leadership to the Fellowship. Recently retired NSWOCC CEO Catherine Harley was also recognized as an Honorary NSWOCC Fellow for her more than two decades of leadership and service to the organization, trispecialty and nursing community. These new Fellows have made an impact across the many facets of wound, ostomy and continence nursing. Their contributions span direct clinical care, health system leadership, nursing education, research, quality improvement, policy development and mentorship.

Britney Butt has contributed to clinical practice, education and program development, such as leading the creation of the Skin Wellness Associate Nurse program. Karen Campbell's contributions to wound care education and research have influenced practice nationally and internationally. Her extensive scholarship and leadership in areas including pressure injury prevention and skin health have helped shape evidence-informed care. Shannon Handfield has played an important role in advancing wound, ostomy and continence practice and provincial professional practice initiatives in British Columbia. Debra

Johnston has spent more than 19 years as a Clinical Nurse Specialist in Wound and Ostomy at Toronto General Hospital and has contributed to national standards, best practice recommendations, education and mentorship. Anna Tumchewics' career has included extensive work in rural, remote and northern communities, alongside volunteer leadership and nursing advocacy.

These Fellows share a commitment to advancing the trispecialty to improve the care of those living with wound, ostomy and continence needs. As a Fellow they will continue to advance the specialty as mentors, advisors, advocates and role models for the nursing community. This second cohort builds upon the foundation that was established by the inaugural Fellows and strengthens a growing community of recognized leaders within the specialty. Given the increasing complexity of healthcare and our specialty, the experience provided by these Fellows provides an invaluable resource for advancing evidence-informed practice, supporting the next generation of nurses specialized in wound, ostomy and continence, and strengthening the voice of our profession.

In recognizing its 2026 Fellows, NSWOCC celebrates the impact that specialized nurses can have on patients, families, our healthcare professional colleagues, the health systems in which we work and evidence which will shape our specialty in the years to come. •

Corey Heerschap, PhD, RN, NSWOC, WOCC(C), FNSWOC
Past President, Nurses Specialized in Wound, Ostomy and Continence Canada

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Canadian Journal of Wound, Ostomy and Continence Manuscript Award



Lina Martins, Editor-in-Chief, CJWOC; Cassandra Jilek, recipient/co-author of the 2025-2026 CJWOC Manuscript Award.

The Editorial Board of the *Canadian Journal of Wound, Ostomy and Continence* (CJWOC), in collaboration with the Board of Directors and Core Program Leaders of Nurses Specialized in Wound, Ostomy and Continence Canada (NSWOC), is pleased to announce that Dilkhass Mosa and her co-authors have been awarded the 2025-2026 CJWOC Manuscript Award.

The manuscript, which earned this distinction, was published in the September 2025 issue of the CJWOC (Volume 1, Issue 2). The title of the manuscript is *The Power of Vitamin C: A Scoping Review of Pressure Injury Wound Healing with Vitamin C Supplementation*. The authors included:

- Dilkhass Mosa, MCISc-WH, RD
- Lisa Ketchmark, MCISc-WH, RN
- Cassandra Jilek, MCISc-WH, RN, NSWOC, WOCC(C)
- Safoua Ammar, MCISc-WH, RN
- Amy Jia Su, MCISc-WH, RN, CNS
- Erin Kennedy, NP-PHC, PhD

Thank you to all the authors for their contribution to evidence informed practice and for supporting knowledge development throughout our specialty and profession. ●

Lina Martins, MScN, BScN, RN, NSWOC, WOCC(C), FNSWOC
Editor-in-Chief, CJWOC

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Read the VLU consensus here: <https://sites.google.com/view/VLUconsensus>

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In-Home Management of Skin Tears by Community Paramedics: A Case Series Report From a Novel Pilot Intervention

ABSTRACT

Background

Skin tears are common in older adults, particularly those who are frail or experiencing age-related skin changes. In rural and remote regions, limited access to timely wound care can lead to delayed assessment, infection, prolonged healing, and preventable emergency department use. Community paramedicine programs have emerged as a strategy to address these gaps by providing timely, in-home care. This case series report evaluates a rural pilot program in which community paramedics managed skin tears from initial presentation through healing. The study examined feasibility, clinical effectiveness, and system-level impact in a region with limited home-care capacity.

Methods

We conducted a 9-month retrospective case series in Renfrew County, Ontario. We included patients referred for community paramedic assessment and management of skin tears. Data from electronic patient-care reports and quality reviews captured referral source, time to assessment, wound characteristics, interventions, need for escalation, healing duration, and resource use. Descriptive statistics summarized demographics, timelines, and outcomes. Chart review and provider feedback identified program enablers and challenges.

Results

Community paramedics managed 43 skin tears in 39 patients (mean age 87). All were assessed within 24 hours of referral, and 79% within 24 hours of injury. Hospital transport was avoided in 46% of encounters, and EMS activation was prevented in 51%. Only 10% required referral to specialized wound care. Among wounds followed to completion, mean healing time was 22 days with an average of 1.8 dressings per case. Challenges included exudate management and coordination across dispersed care teams.

Conclusions

Community paramedics can safely and effectively manage skin tears in the home, improving access and reducing reliance on emergency services in rural settings. This model offers a scalable, patient-centered approach to enhancing rural wound-care capacity.

Keywords: Community paramedic, emergency medical services, patient safety, skin tears, wound management

Prise en charge à domicile des déchirures cutanées par des paramédics communautaires : rapport de série de cas portant sur une nouvelle intervention pilote

RÉSUMÉ

Contexte

Les déchirures cutanées sont fréquentes chez les personnes âgées, particulièrement chez celles qui sont fragiles ou qui présentent des changements cutanés liés au vieillissement. Dans les régions rurales et éloignées, l'accès limité à des soins des plaies

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en temps opportun peut entraîner un retard dans l'évaluation, des infections, une prolongation du temps de cicatrisation et un recours évitable aux services d'urgence. Les programmes de paramédecine communautaire sont apparus comme une stratégie permettant de combler ces lacunes en offrant des soins à domicile en temps opportun. Ce rapport de série de cas évalue un programme pilote en milieu rural dans le cadre duquel des paramédics communautaires ont pris en charge des déchirures cutanées depuis leur présentation initiale jusqu'à leur cicatrisation. L'étude a examiné la faisabilité, l'efficacité clinique et les répercussions sur le système dans une région où la capacité des services de soins à domicile est limitée.

Méthodes

Nous avons mené une série de cas rétrospective sur une période de neuf mois dans le comté de Renfrew, en Ontario. Nous avons inclus les patients orientés vers les services de paramédecine communautaire pour l'évaluation et la prise en charge de déchirures cutanées. Les données provenant des rapports électroniques de soins aux patients et des examens de la qualité comprenaient la source de l'orientation, le délai avant l'évaluation, les caractéristiques des plaies, les interventions, la nécessité d'une intensification des soins, la durée de cicatrisation et l'utilisation des ressources. Des statistiques descriptives ont été utilisées pour résumer les caractéristiques démographiques, les délais et les résultats. L'examen des dossiers et les commentaires des prestataires de soins ont permis de cerner les facteurs facilitant la mise en œuvre du programme ainsi que les défis rencontrés.

Résultats

Les paramédics communautaires ont pris en charge 43 déchirures cutanées chez 39 patients, dont l'âge moyen était de 87 ans. Tous les patients ont été évalués dans les 24 heures suivant leur référence, et 79 % l'ont été dans les 24 heures suivant la blessure. Le transport vers l'hôpital a été évité dans 46 % des interventions, et le recours aux services médicaux d'urgence (SMU) a été évité dans 51 % des cas. Seulement 10 % des patients ont dû être orientés vers des soins spécialisés des plaies. Parmi les plaies suivies jusqu'à leur cicatrisation complète, le temps moyen de cicatrisation était de 22 jours, avec une moyenne de 1,8 pansement par cas. Les défis comprenaient notamment la gestion de l'exsudat et la coordination entre les équipes de soins réparties sur un vaste territoire.

Conclusions

Les paramédics communautaires peuvent prendre en charge les déchirures cutanées à domicile de façon sécuritaire et efficace, améliorant ainsi l'accès aux soins tout en réduisant le recours aux services d'urgence dans les régions rurales. Ce modèle offre une approche évolutive et centrée sur le patient permettant d'accroître la capacité en matière de soins des plaies en milieu rural.

Mots-clés : paramédecine communautaire, services médicaux d'urgence, sécurité des patients, déchirures cutanées, prise en charge des plaies

Conflicts of Interest

No authors note any competing interests as it relates to this study.

Availability of Data and Materials

The data supporting the findings are available upon request from the corresponding author.

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INTRODUCTION

Skin tears are acute, traumatic wounds that increase in prevalence in older adults due to physiologic changes associated with aging.¹ These tears typically occur on the upper and lower extremities and are among the most common skin complications, occurring more frequently than pressure ulcers.^{2,3} Despite this, skin tears often go unreported,⁴ although prevalence estimates range from 4.5% to 19.5% across all age groups,^{5,6} with increased rates in the elderly.⁷ Strazzieri-Pulido et al. demonstrated an incidence of between 2.23% and 92% in long-term care facilities.⁸ Skin tears can reduce quality of life, cause pain, and increase anxiety, costs, and length of hospital stays when coupled with emergency department visits.^{7,9} Poorly managed skin tears can lead to chronic wounds and infection.^{9,10}

The International Skin Tear Advisory Panel (ISTAP) defines a skin tear as "a traumatic wound caused by mechanical forces, including removal of adhesives. Severity may vary by depth but not extending through the subcutaneous layer."¹⁰ ISTAP further defines a skin flap as "a portion of the skin (epidermis/dermis) that is unintentionally separated, partially or fully, from its original position due to shear, friction, and/or blunt force. This concept is not to be confused with tissue that is intentionally detached from its place of origin for therapeutic use, e.g., surgical skin grafting."¹¹ Skin tears are often under-recognized and underreported, potentially due to a lack of standardized classification and the absence of a dedicated ICD-10 code.⁹ During the preparation of this manuscript, the Province of Ontario approved the inclusion of a dedicated skin tear management code in the provincial Ambulance Call Report (ACR), recognizing skin tears as a distinct prehospital clinical encounter.¹² This represents an important step toward improving the identification and tracking of skin tears in the out-of-hospital setting and will facilitate future evaluation of their incidence, management, and outcomes.

Risk factors for skin tears include fragile or edematous skin, increased moisture, friction, trauma, malnutrition, dehydration, reduced mobility, and cognitive impairment.^{9,13} Patients at highest risk often have a history of skin tears, chronic steroid or nonsteroidal anti-inflammatory drug use, advanced age, or dependence on others for activities of daily living. Additional

contributing factors include tactile sensory loss, polypharmacy, use of assistive devices, and loss of subcutaneous tissue.^{9,13}

Previous Skin Tear Initiatives

Prior work in long-term care demonstrated that residential staff could manage up to 93% of skin tears, while paramedics have been shown to manage up to 50% of cases in home settings.¹⁴ These initiatives improved patient quality of life, empowered staff, and reduced the need for referrals to external healthcare providers while also decreasing costs and complications.¹³ Upon initiation of this pilot project, a regional scan showed a dearth of similar paramedic-led initiatives to manage skin tears in the home. A recurring anecdotal observation from community paramedics was that skin tears presenting to emergency departments were often managed in ways perceived to be inconsistent with contemporary evidence-based guidelines. This perception served as one of the factors motivating us to develop this program.

Lessons Learned

ISTAP notes that early evaluation of a skin tear is critical, ideally within the first hour after injury, with rapid approximation of skin flaps. However, an Australian aged-living home extended this window to 72 hours with positive outcomes.¹⁵ Common challenges in home care include inappropriate dressing selection and lack of resources, which can delay healing.¹³ When appropriate dressings are available and applied correctly, healing times improve across wound types.¹⁵ Guest et al. emphasized that optimal management at first assessment is essential.¹⁶

ISTAP recommends keeping dressings in place for up to 7 days, maintaining a moist wound environment, managing exudate, protecting peri-wound skin, and conforming to the wound to prevent exudate pooling.¹⁷ Guidance is also provided to ensure the protection of the skin tear flap when changing dressings by clearly marking either the shape of the skin tear or the direction of dressing removal on the exterior of the dressing. Prevention and timely intervention are key to reducing pain, morbidity, and mortality associated with skin tears.¹ While skin tears are preventable, they respond well to early and appropriate management, which improves the patient experience, decreases cost, and increases provider confidence.

METHODS

Pilot Location

This pilot program took place in Renfrew County, Ontario, Canada, a rural region just west of Ottawa. The paramedic coverage area spans over 7,000 km² and serves a population of just over 106,000 residents with a population density of 14.5 people per km². At peak coverage, the region is staffed with 12 transport-capable ambulances (designated for response to emergency 9-1-1 calls) supported by an average of 7 community paramedics who are single practitioners in nontransport-capable response vehicles. Community paramedics operate primarily in nonemergency, community-based roles, providing assessment, treatment, and referral services to improve access

to care and reduce unnecessary emergency department utilization. Regional home-care support in the form of personal support workers and nurses is facilitated provincially through Ontario Health atHome and contracted through multiple other agencies. Specially trained nurses provide wound care across the region and deliver in-home services.

The region's size and sparse population density pose logistical challenges for wound management, including extended travel times and variable access to dressing supplies or allied health support. However, these same characteristics made it an ideal setting to test community paramedic-led skin tear management, as the program's outreach capability could bridge significant gaps in access and continuity of care.

Prepilot Preparation

Existing clinical practice guidelines were reviewed, focusing on acute, short-term interventions to accommodate the lack of local program capacity to manage long-term wound care. Key limiting factors, such as patient presentation, environment, wound type, and comorbidities, were identified. Evidence from *Foundations of Best Practice for Skin and Wound Management*,¹⁸ British Columbia Health's Guideline Summary for Skin Tear Management, and consultations with local experts at Ontario Health atHome informed the approach. A working group of community paramedics, registered nurses, and wound-care nurses collaborated to align practices, select appropriate dressings, and define risk boundaries. Input from Ontario Health atHome, Home and Community Care Support Services ensured the pilot reflected best practices and local resources.

Scope of Skin Tear Pilot Project

Based on preimplementation planning, eligibility criteria were established to restrict community paramedic skin tear management to noncircumferential skin tears smaller than the largest dimensions of the supplied medicated dressings (9.8 cm by 10.2 cm). Bleeding must be controllable, either by on-scene ambulance paramedics (following an emergency 9-1-1 call), community paramedics, or other individuals present. Causative factors for the skin tear must be isolated, mechanical, and with minimal risk of contamination, infection, or tetanus exposure. The patient must be cognitively intact and able to follow a treatment plan, or resources must be available to support the patient at home to facilitate the care plan. The skin tear must be less than 24 hours old and ideally kept moist and clean until the dressing can be applied.

Pilot Program Development and Deployment

Based on our preimplementation evidence, we developed two implementation and referral guidelines: one for ambulance paramedics and one for community paramedics/community partners. Recognizing that skin tear management could generate appropriate referrals from 9-1-1 calls (akin to 1-1-2, or 0-0-0 in other international jurisdictions), we established a structured referral process. After assessing indications and contraindications, ambulance paramedics may contact the Community Paramedic Program to request an urgent visit

within 24 hours. If the 24-hour window cannot be met based on staff availability, transport to the hospital is recommended. To support this process, detailed first-aid instructions are provided to ambulance paramedics, emphasizing the use of moist, sterile, non-stick dressings secured with roller gauze until the community paramedic follow-up.

The community paramedic guidelines outline standardized steps for short-term management, including assessment, irrigation, flap repositioning if appropriate, and dressing application. They also provide criteria for determining when referral to complex wound-care services is warranted. Decision-making factors include patient cooperation, independence, cognitive status, and mobility, coupled with existing support services and a history of previous skin tears with protracted healing.

Local home-care partners and the working group collaborated to source appropriate dressings, inclusive of transparent, composite wound dressings, and to assemble wound-care kits stocked with sterile water for cleaning, single-use tweezers, sterile cotton-tipped swabs, and laminated reference materials. The working group and selected paramedics reviewed all draft guidelines and kits to ensure accuracy and safety and incorporated revisions in response to their feedback.

Education and training were delivered through in-person sessions, live demonstrations, and instruction from a wound-care nurse. The content included skin tear pathophysiology, risk factors, and healing principles. Implementation was supported through ongoing communication during virtual shift meetings, ensuring a consistent understanding across ambulance and community paramedic teams.

Final guidelines were distributed in both print and digital formats for accessibility. Utilization was monitored through standardized after-action reports, each reviewed within 24 hours to identify individual patient concerns or program shortfalls. Real-time feedback was provided to staff to reinforce adherence and promote evidence-based practice throughout the implementation phase.

Ethics and Data Governance

This project was conducted as a quality-improvement and program-evaluation initiative within the County of Renfrew Paramedic Service to evaluate and improve the management of skin tears within the community paramedicine program. The project was determined to be a quality-improvement activity rather than research involving human participants. In accordance with Article 2.5 of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans–TCPS 2 (2022), quality-improvement and program-evaluation activities conducted exclusively for assessment, management, or improvement purposes do not constitute research and therefore do not fall within the scope of Research Ethics Board (REB) review.¹⁹ Formal REB approval was therefore not required. All data were collected as part of routine clinical care and quality assurance processes and were de-identified prior

to analysis. Given the retrospective and de-identified nature of the project, individual patient consent was not required.

RESULTS

Over the 9-month pilot period, December 2023–September 2024 (Table 1), community paramedics managed 43 skin tears in 39 patients across Renfrew County. The average patient age was 87 (range: 73–104), with a nearly even gender distribution (22 males, 17 females). Most injuries (67%) occurred on the lower arm, followed by the lower leg (21%).

Nearly half of all referrals (49%) originated from 9-1-1 ambulance paramedics, while 46% were initiated through the community paramedic non-urgent call line. All wounds were assessed within 24 hours of notification, and 79% within 24 hours of injury, demonstrating rapid response capability even in a large rural service area.

The program demonstrated a substantial health-system impact: 51% of encounters prevented the use of 9-1-1 services, and 46% prevented hospital transport. Only 1 patient (3%) required emergency department referral. Of the total cases, 69% were managed entirely by paramedics, 18% involved preexisting deferred care, and 10% were newly referred to wound-care specialists due to delayed healing or provider comfort level.

For wounds managed entirely from injury to healing under paramedic supervision, the mean healing time was 22 days (range: 8–33), requiring an average of 1.8 dressings per case. These results are comparable to healing times reported in long-term care and home-care settings. Overall, the data indicate that community paramedics successfully provided safe, timely in-home management for most skin tears, reducing reliance on emergency services and demonstrating strong integration with existing home-care systems.

DISCUSSION

This pilot demonstrated that community paramedics can play a meaningful role in managing acute skin tears in the home, reducing the need for emergency department visits and hospital transports. Nearly half of the encounters in this study prevented a 9-1-1 response or hospital transfer, confirming that wound care delivered by community paramedics can mitigate system pressures while maintaining patient safety. These results align with prior reports that paramedics can manage up to half of wound-related presentations in the community¹⁴ and extend this evidence by demonstrating feasibility in a rural, low-density population. Community paramedicine has a history of collaborating with primary-care providers to manage complex chronic disease.^{20–23} Additionally, many community paramedic programs have incorporated either interventions or follow-up for injurious or noninjurious falls in frail older adults.^{23–29} Our findings logically extend these findings and should inform team-based approaches to primary care in which timely, responsive, “first contact” interactions between

Table 1: Summary of Data (December 2023–September 2024)

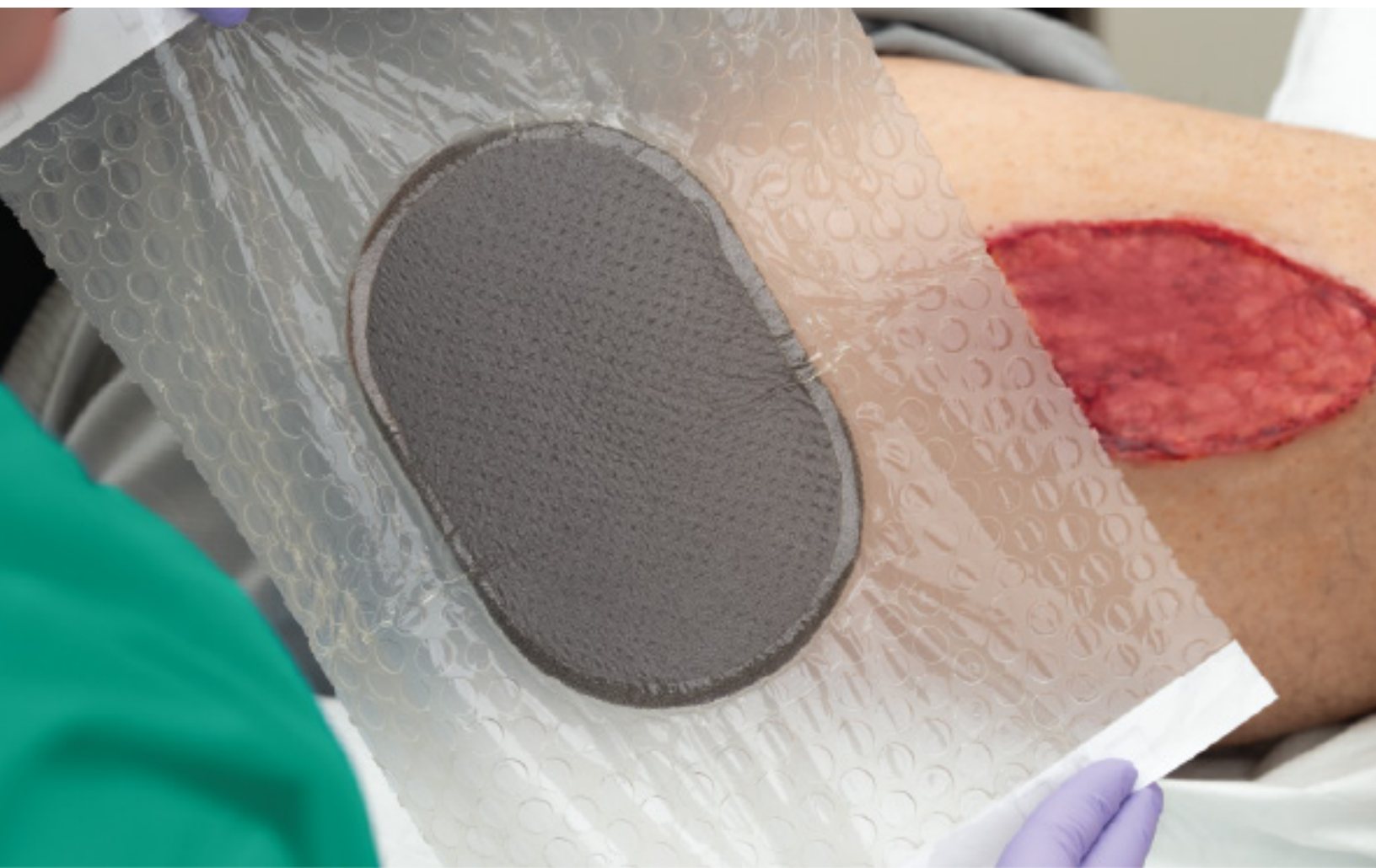
CATEGORY	MEASURE	RESULT
Patient Characteristics	Total patients	39
	Total skin tears managed	43 (4 patients had multiple)
	Average age (range)	87 (73–104)
	Gender	Male: 22 (56%)/Female: 17 (44%)
Location of Skin Tear	Lower arm	29 (67%)
	Upper arm	4 (9%)
	Lower leg	9 (21%)
	Other	1 (2%)
Referral Source	9-1-1/Ambulance crew	19 (49%)
	Nonurgent community paramedic line	18 (46%)
	Community paramedic staff	2 (5%)
Timeliness of Care	Wound assessed within 24 hours of notification	100%
	Wound assessed within 24 hours of injury	34 (79%)
System Impact	Prevention of 9-1-1 use	20 encounters (51%)
	Prevention of hospital transport	18 encounters (46%)
	Transport to hospital	1 encounter (3%)
Care Outcomes	Managed entirely by community paramedics	27 (69%)
	Referral to wound-care services	4 (10%)
	Preexisting or deferred care	7 (18%)
	Mean healing time (range)	22 days (8–33)
	Average dressings per wound (completed cases)	1.83 (range 1–5)
	Average dressings (partial cases)	1.76 (range 1–9)
Qualitative Findings	Common challenges	Exudate management, delayed coordination, prolonged healing
	Paramedic-reported confidence	High; 60% of interactions noted no provider concerns

Note. “Prevention of 9-1-1 use” refers to cases in which community paramedic intervention avoided an emergency response. “Managed entirely by community paramedics” indicates wounds assessed, dressed, and followed to healing without additional referral.

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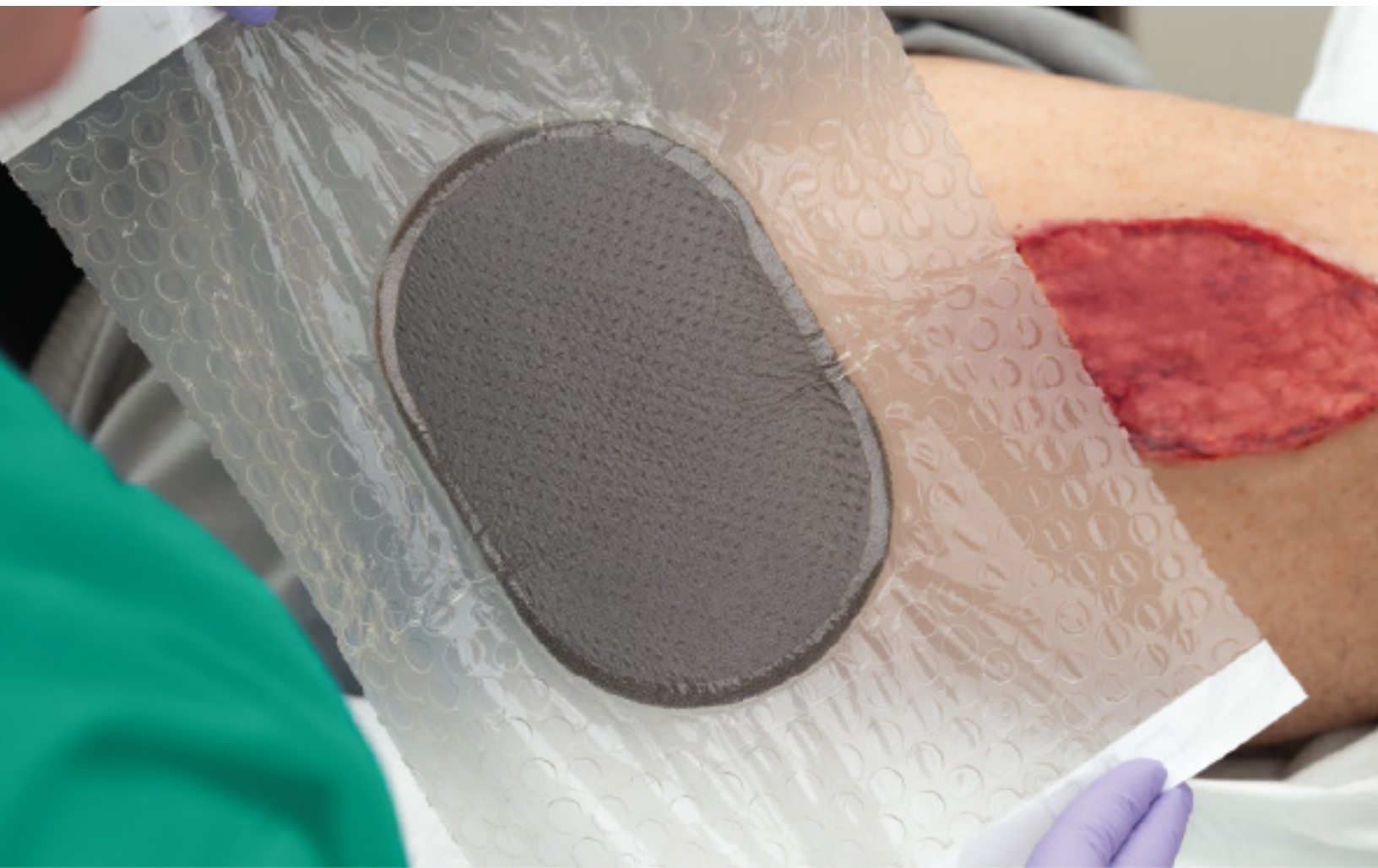
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patients and paramedics promote improved coordination and continuity with family physicians and nurse practitioners.

Healing outcomes in this pilot were comparable to those reported in home-care and long-term care settings, with an average healing duration of 22 days and a low referral rate (10%) to specialized wound care. This suggests that, when properly trained and supported, community paramedics can deliver high-quality wound care consistent with established best practices.^{3,4} The 100% assessment rate within 24 hours of notification also highlights the value of a mobile, responsive paramedic model for timely wound management.

Challenges noted by providers, such as exudate control, delayed follow-up due to coordination gaps, and limited dressing options, underscore the importance of infrastructure and supply-chain planning in community wound programs. These issues reflect findings from Mangan and Shoreman and Jansz et al., who identified resource availability and correct dressing choice as key determinants of healing outcomes.^{13,15}

A strength of this pilot was the strong interprofessional collaboration with home-care nurses and Ontario Health at Home, which ensured guideline alignment and safe practice boundaries. The pilot was designed to tailor wound-care best practices to a rural setting and improve access to care for a predominantly older, frail patient group. However, we also intentionally limited the range of dressings and eligibility criteria. These im-

plementation decisions, combined with the small sample size, limit the generalizability of the findings. Still, by reporting our preliminary results, we are establishing a basis for further evaluation. For example, a quasi-experimental study could evaluate expanded supply kits and inclusion of more complex wound types. Similarly, we recognize that a larger sample is warranted. Additionally, formal cost and patient satisfaction analyses would help quantify system and individual benefits.

Overall, this pilot reinforces the role of community paramedicine as a viable, scalable solution for low acuity wound management in rural and underserved settings. By integrating wound care into paramedic practice, healthcare systems can improve accessibility, continuity, and efficiency while optimizing patient experience.

CONCLUSION

Community paramedics can safely treat selected skin tears at home, reducing hospital trips and improving care continuity in rural areas. The model strengthens collaboration among nurses, wound specialists, and paramedics, offering faster assessment, earlier intervention, and timely referral when needed. The results support integrating wound management into community paramedicine to enhance outcomes and system capacity. Future priorities include expanding training, broadening dressing options, and studying cost-effectiveness and long-term healing. ●



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Ostomy Assessment Systematic Integration of Studies (OASIS): Maternal, Child, and Youth Assessment Scoping Review

ABSTRACT

Background

Unique physical and psychosocial challenges are present in the maternal, child, and youth population. Despite the complexities of living with or caring for individuals living with an ostomy in this population, few studies focus specifically on this population. This study seeks to better understand the specific challenges, outcomes, and care strategies for this population, highlighting the unique considerations and educational needs for the assessment of the individual living with an ostomy, as well as their families and caregivers.

Methods

As part of the Ostomy Assessment Systematic Integration of Studies (OASIS) study, this scoping review explores evidence related to ostomy assessment in maternal, child, and youth populations. A systematic search of MEDLINE and CINAHL was conducted in January 2021 using the Joanna Briggs Institute and the PRISMA-ScR framework to guide the study. Data were extracted, analyzed using content analysis, and organized using the PAGER framework.

Results

Of the 42,059 results obtained from the search, 26 included studies focused on the maternal, child, and youth populations. Three themes emerged from the data, including pregnancy, family dynamics, and management and complications in newborns. Results revealed opportunities to improve ostomy assessment practices to support the maternal, child, and youth populations.

Conclusions

Ostomy assessment in the maternal, child, and youth population requires evidence-informed approaches that consider factors unique to this population. Further research is needed to guide best practice.

Key Words: Ostomy, nursing, nursing assessment, surgical stomas, maternal-child nursing, scoping review

Intégration systématique des études sur l'évaluation des stomies (OASIS) : examen de la portée de l'évaluation auprès des mères, des enfants et des jeunes

RÉSUMÉ

Contexte

Les populations maternelle, infantile et jeunesse font face à des défis physiques et psychosociaux particuliers. Malgré la complexité associée au fait de vivre avec une stomie ou de prendre soin d'une personne vivant avec une stomie au sein de ces populations, peu d'études portent spécifiquement sur celles-ci. Cette étude vise à mieux comprendre les défis particuliers, les résultats et les stratégies de soins propres à ces populations, en mettant en évidence les considérations particulières et les besoins éducatifs liés à l'évaluation des personnes vivant avec une stomie, ainsi que de leurs familles et de leurs proches aidants.

Méthodes

Dans le cadre de l'étude Ostomy Assessment Systematic Integration of Studies (OASIS), cet examen de la portée explore les données probantes relatives à l'évaluation des stomies auprès des populations maternelle, infantile et jeunesse. Une recherche systématique dans les bases de données MEDLINE et CINAHL a été effectuée en janvier 2021. Les cadres méthodologiques du Joanna Briggs Institute et PRISMA-ScR ont été utilisés pour orienter l'étude. Les données ont été extraites, analysées au moyen d'une analyse de contenu et organisées selon le cadre PAGER.

Résultats

Parmi les 42 059 résultats obtenus lors de la recherche, 26 études incluses portaient sur les populations maternelle, infantile et jeunesse. Trois thèmes se sont dégagés des données : la grossesse, la dynamique familiale ainsi que la prise en charge et les complications chez les nouveau-nés. Les résultats ont révélé des possibilités d'améliorer les pratiques d'évaluation des stomies afin de mieux soutenir les populations maternelle, infantile et jeunesse.

Conclusions

L'évaluation des stomies auprès des populations maternelle, infantile et jeunesse nécessite des approches fondées sur des données probantes qui tiennent compte des facteurs propres à ces populations. Des recherches supplémentaires sont nécessaires afin d'orienter les pratiques exemplaires.

Mots-clés : stomie, soins infirmiers, évaluation infirmière, stomies chirurgicales, soins infirmiers maternels et infantiles, examen de la portée

Conflicts of Interest

No authors note any competing interests as it relates to this study.

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Availability of Data and Materials

Data supporting the findings of this study are available within the article. A structured dataset is available from the corresponding author upon reasonable request.

Contribution Statement According to CRediT Roles

CH - Conceptualization, data curation, formal analysis, funding acquisition, investigation, methodology, project administration, supervision, validation, visualization, writing – original draft, writing - review and editing
BB - Conceptualization, data curation, formal analysis, methodology, validation, visualization, writing - review and editing

DF - Formal analysis, writing - original draft
GH - Data curation
EM - Data curation
KM - Data curation, formal analysis, visualization, writing - original draft
AL - Data curation, formal analysis, visualization
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INTRODUCTION

A fecal or urinary diversion, commonly referred to as an ostomy, is a surgical procedure used to manage a range of conditions, including cancer, congenital disabilities, inflammatory bowel disease, and various digestive and urinary diseases.¹ While the procedure provides numerous benefits, it also presents significant challenges that profoundly affect both the physical and psychosocial aspects of a patient's life, particularly in vulnerable populations, such as pregnant women, infants, children, and adolescents. The assessment and management of an ostomy in maternal, child, and youth populations present unique challenges and considerations for healthcare providers, patients, and their caregivers. Around 90,000 individuals in Canada live with an ostomy, with an estimated 13,000 individuals obtaining an ostomy annually.² Special consideration of ostomy surgeries, outcomes, and complications is required to capture the complete picture in pediatric, adolescent, and maternal populations.

In the context of pregnancy, an ostomy can complicate both the gestation and delivery process. The physiological changes during pregnancy, coupled with the presence of an ostomy, necessitate specialized prenatal and perinatal care. The PAPooSE Study Group highlights the experience and outcome of pregnancy after stoma surgery, indicating the levels of fear and anxiety surrounding pregnancy and its impact on stoma function.³ The literature highlights that individuals living with an ostomy have a poor understanding about conception, stomal complications, the experience of pregnancy, the obstetric mode of delivery, and maternal and fetal outcomes, resulting in lower birth rates for these patients.³⁻⁵ Healthcare providers must carefully monitor maternal and fetal health, adjusting medical assessment to accommodate the ostomy. The delivery process itself may also require adaptations to ensure the safety and health of both mother and child.³ Pregnant patients with a stoma for inflammatory bowel disease have a higher rate of cesarean sections and stoma complications. Therefore, more studies

that investigate comprehensive care strategies, tailored pre-natal management plans, and specific delivery protocols for pregnant women with ostomies are needed to improve maternal and fetal outcomes.³

For neonates and infants, ostomies may be required shortly after birth, often because of congenital anomalies or conditions, such as necrotizing enterocolitis. Forest-Lalande discusses the different specialized approaches needed for ostomy surgery and care in neonatal and youth populations, noting the scarcity of evidence for ostomy care in these populations.⁶ Additionally, the role of caregivers is significant in these populations, where support, ostomy education, and coping mechanisms are crucial for effective care.⁷ Stoma-related morbidity in pediatric populations is approximately 30%, highlighting the significant challenges and complications associated with ostomy care in this vulnerable group.⁸ Factors, such as the delivery method, caregiver education, weight and body mass index, and management of complications, such as prolapse, are recurrent themes in the literature, emphasizing their importance in this population.

Living with an ostomy can profoundly affect child and adolescent quality of life, impacting physical, emotional, and social well-being. Issues, such as body image, self-esteem, and adaptation, can pose significant challenges as children grow and develop.^{9,10} These challenges can be particularly pronounced during adolescence, a critical period for social development and identity formation.⁹ Addressing these psychosocial aspects is essential for promoting well-being in young individuals living with an ostomy.⁹ Families and caregivers play a pivotal role in managing ostomies, yet they often face substantial educational and emotional burdens.¹¹ The level of education and support provided to families and caregivers is crucial in ensuring effective ostomy care, reducing anxiety, and improving the overall quality of life for both the patient and their support network.^{11,12} Financial constraints may also impact families of those living with an ostomy, with different provinces across Canada providing different levels of financial aid for those caring for children living with an ostomy.² Proper education and resources can empower families, enabling them to manage the ostomy with confidence and competence. Ostomies, essential for managing various medical conditions, present significant physical and psychosocial challenges, particularly for vulnerable populations such as pregnant women, infants, children, and adolescents who need specialized care and increased awareness to optimize health outcomes and quality of life.

Aim

The Ostomy Assessment Systematic Integration of Studies (OASIS) scoping review aims to determine the evidence base related to the assessment of individuals living with an ostomy. The OASIS scoping review findings are presented in 5 articles. This publication aims to discuss the specific factors related to the assessment of challenges, outcomes, and care strategies for populations, including maternal, child, and youth groups, highlighting the unique considerations and educational needs for patients, families, and caregivers.

Identification of Research Questions

The primary research question for this study was: What is the evidence base related to the assessment of the individual living with an ostomy? This question is written in accordance with the PCC Framework, which stands for population, concept, and context,¹³ where the population is individuals living with an ostomy, the concept is the assessment of the individual living with an ostomy, and the context is the evidence base related to the assessment of the individual living with an ostomy.

METHODS

A comprehensive methodology was included in a previous manuscript (Assessment Tools) of the OASIS study.¹⁴ The current scoping review was not preregistered and followed the Joanna Briggs Institute (JBI) framework as well as the Preferred Reporting Items for Systematic Review and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR).

The search was completed using the MEDLINE and CINAHL databases in January 2021. When conducting the search, no limitations or filters were used in order to collect as much data as possible.

Covidence® software for systematic reviews was used, and 7 independent researchers double-screened and used the article titles and abstracts for selection based on the inclusion and exclusion criteria outlined in the descriptive methods section of the Assessment Tools manuscript. A nurse specialized in wound, ostomy, and continence (NSWOC) reviewed any conflicts regarding selection and made the final determination. Two NSWOCs reviewed the full texts and made further selections based on their findings. The reviewers discussed disagreements regarding the selection process until consensus was reached.

Data from the articles, including the author and year, country of origin, purpose and aim of the study, research design, sample and setting, data analysis, results, and any accessory comments, for instance whether ethics approval was obtained, were extracted and made into tables. The tables were then used to create a searchable database of the articles' findings, following the Elo and Kyngas content analysis approach.¹⁵ The findings were summarized and presented in accordance with Bradbury-Jones et al.'s PAGER Framework, which outlines the patterns in the data, the advancements made to knowledge, gaps in the literature, evidence for practice, and recommendations for follow-up research.¹⁶ Table 1 includes the PAGER Framework for the maternal, child, and youth manuscript.

RESULTS

The OASIS scoping review located 42,059 articles across the CINAHL and MEDLINE databases. Of these articles, 12,023 duplicates were removed, leaving 30,035 articles that were double-screened by title and abstract. After 29,294 additional records were removed post-screening for inclusion and exclusion criteria, 741 articles remained for full-text screening. Two

Table 1: PAGER Framework

PATTERN	ADVANCES	GAPS	EVIDENCE FOR PRACTICE	RESEARCH RECOMMENDATIONS
Pregnancy With an Ostomy	Improving maternal and fetal outcomes compared to historical outcomes and demonstrated feasibility	A lack of recent prospective research studies and literature related to assessing and monitoring those individuals who are pregnant and living with an ostomy	Pregnant individuals living with an ostomy should have regular stoma assessment with monitoring for intestinal obstruction	Develop and validate pregnancy-specific monitoring tools and conduct prospective studies related to living with an ostomy during pregnancy
Family and Caregiver Needs	Evidence demonstrating education improves stoma management competence and recognition of needs related to psychosocial and body image in youth living with an ostomy	More longitudinal research is needed related to adaptation to living with an ostomy over time	Provide family-centered education, assess knowledge of caregivers, and assess for and provide support for psychosocial and body image issues	Study long-term psychosocial outcomes of living with an ostomy as a child or youth
Newborn and Pediatric Complications	Common risks were identified, such as skin breakdown, and high output and complication predictors identified, such as low birth weight and gestational age	Remains unclear whether there are increased risks for complications if a case is emergency as opposed to elective; further guidance is needed regarding postoperative monitoring and assessment	Screening for complication risk and early assessment for complications should be considered	Create postoperative assessment and monitoring strategies for pediatric and newborns living with an ostomy and conduct studies to determine if there is an increased risk between elective and emergency procedures

nurses specialized in wound, ostomy, and continence screened these articles, after which it was determined that 383 studies were appropriate to include in the OASIS scoping review. Figure 1 presents this process as a PRISMA flow diagram.

Content analysis of the 383 studies identified 5 major themes across findings, including: (1) assessment tools (n=29); (2) maternal, child, and youth assessment (n=26); (3) physical assessment (n=74); (4) psychosocial assessment (n=114), and (5) complication assessment (n=140). Due to the number of articles and findings in each of these core themes, each theme has been presented in its own report. These following pages focus on the 26 articles included in the maternal, child, and youth assessment theme. For more on the study methodology, please refer to the OASIS article on assessment tools.¹⁴

Characteristics of Sources of Evidence

The author, year, and country of the study, along with the study's aim, methodology, participants, data analysis technique, results, and ethical considerations of the evidence, will be summarized to aid in contextualizing the findings. Of the 26 articles included in this review, the majority were conducted in the United States (n=10).¹⁷⁻²⁶ The remaining studies were conducted in the United Kingdom (n=6),²⁷⁻³² Brazil (n=2),^{33,34} Canada (n=2),^{10,35} Australia (n=1),⁵ Austria (n=1),³⁶ Ireland

(n=1),³⁷ Nigeria (n=1),³⁸ Poland (n=1),³⁹ and the Netherlands (n=1).⁴⁰ Most of the studies were conducted after the year 2000 (n=17).^{5,10,17,18,21,22,26,31-40}

The studies aimed to provide insights into complications and risk factors,^{17,24,26,31,35,36,40} patient and caregiver experiences and perspectives,^{33,34,38,39} surgical outcomes and techniques,^{18,21,23,29,30,32} quality of life and psychological impact,^{10,22} and specific conditions and demographics,^{5,19,20,25,27,28,37} all within maternal, pediatric, and family domains.

The methodologies employed across the studies varied widely, incorporating quantitative, qualitative, and mixed methods approaches. Research designs included retrospective studies (n=14),^{17,18,21,23,24,26,28,29,31,32,35-37,40} surveys (n=2),^{19,38} cross-sectional studies (n=2),^{33,39} grounded theory design (n=1),²² prospective observational studies (n=1),²⁰ case studies and series (n=3),^{25,27,30} ethnographic research (n=1),¹⁰ hermeneutic phenomenology (n=1),⁵ and qualitative studies (n=1).³⁴ Common data analysis techniques included descriptive statistics, thematic analysis, Fisher's exact tests, T-tests, chi-square analyses, Mann-Whitney U tests, and Kaplan-Meier curves.

The participant demographics in these studies span a wide range, from preadolescents and adolescents to neonates

with an average gestational age of 28 weeks.¹⁷ Many studies also examine the involvement of family members and caregivers in ostomy management, including parents, relatives, and caregivers of children with ostomies. Additionally, maternal outcomes are a key focus in some studies, featuring pregnant women undergoing ostomy procedures or those who become pregnant after having an ostomy.

Ethical considerations are crucial when studying vulnerable populations, such as neonates, infants, preadolescents, adolescents, and pregnant individuals. Therefore, ethical compliance was analyzed across all studies. All studies conducted before 2000 lacked discussions on ethical compliance, approval, and informed consent, with Schwarz et al.²⁵ being the only exception. In contrast, most studies conducted after 2000 included discussions on ethical compliance. Overall, 10 studies addressed ethics, 9 of which were conducted after 2000.^{5,10,17,18,21,26,32-34}

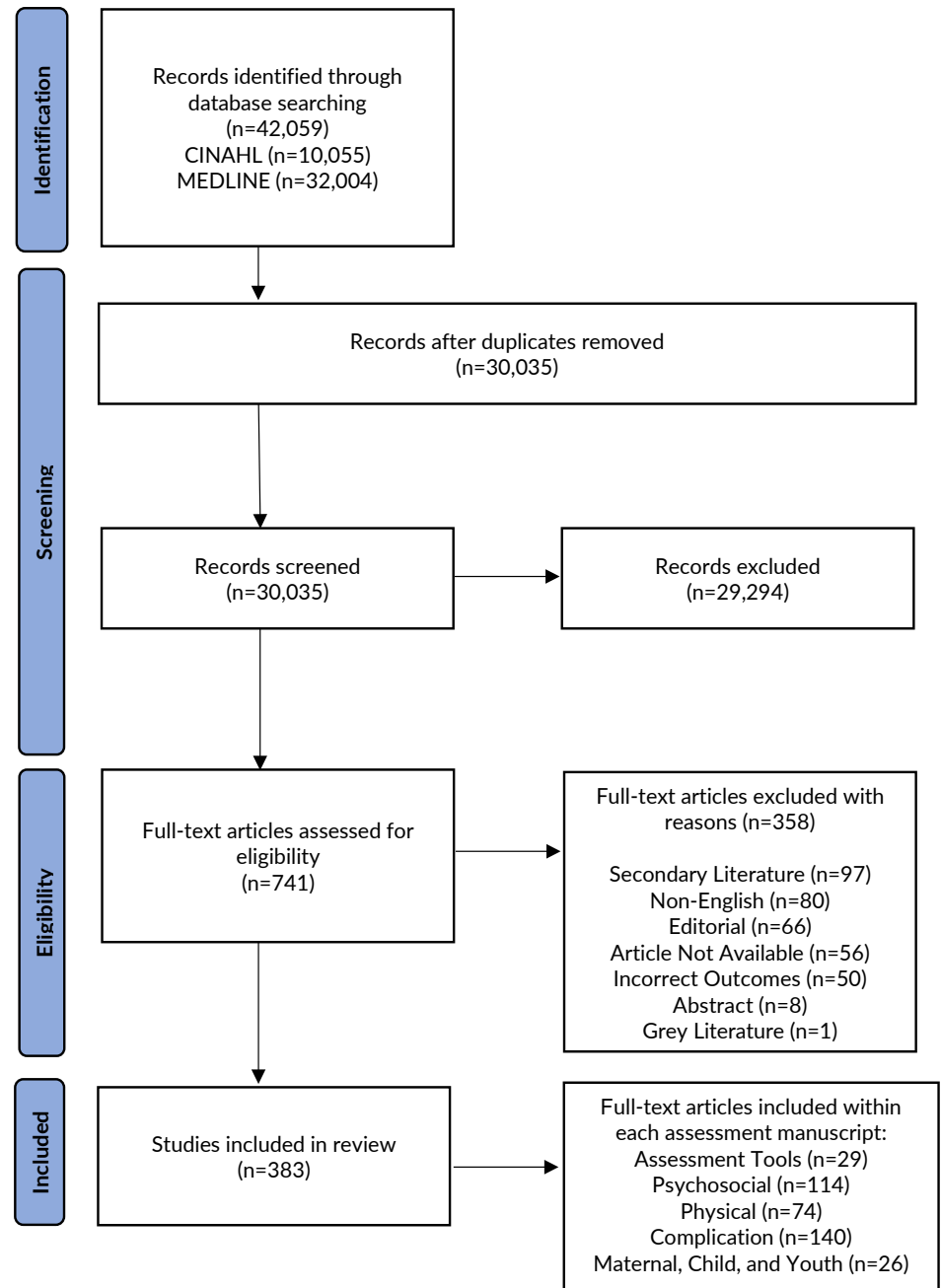
Results of Individual Sources of Evidence

Following our inductive content analysis approach, the findings from this portion of the OASIS review were grouped into 3 categories: (1) pregnancy, (2) family, and (3) management and complications in newborns.

Pregnancy

Four articles in this study examined the implications of having an ostomy on pregnancy. Hudson found that a pregnant individual's medical team should monitor their patient closely as intestinal obstruction is a common complication that labour pains can mask.²⁸ Whiteley and Gullick found that the level of concern of pregnant people was much lower than anticipated.⁵ The participants described their stoma as a "lifeline." Pregnancy with a stoma was found to be feasible and often successful.¹⁹ Maternal and fetal outcomes today are significantly better than historical reports and can likely be explained by early surgical intervention and improved perioperative care.¹⁸ Although pregnancy outcomes are significantly

Figure 1: PRISMA Flow Diagram



Adapted from: PRISMA 2020 flow diagram, PRISMA Statement / PRISMA Executive. Licensed under CC BY 4.0.

better than historical records, regular stomal assessment is needed to prevent complications.

Family

Several articles included in this study investigated the impact that stoma management has on the parents of a child with a stoma. A few studies found that parents expressed the need for more

support. Support needs identified included improved stoma management education, easier access to collection appliances, and access to social supports.^{34,38,39} A lack of parental knowledge can lead to issues with management. For example, Bezerra and Assis noted an instance where the lack of parental knowledge was shown to result in stomal complications.³³

Adolescents were observed to have difficulties with body image which frequent health assessments and negative social changes exacerbated.^{10,22} It was also noted that parents had difficulty relinquishing care when the patient was competent enough to care for their own stoma. Merenda et al. found that youth that underwent the Mitrofanoff procedure were very satisfied with their continent catheterizable urinary stoma as it resulted in increased independence.²¹ The findings of the included studies suggest the need for assessing parental ostomy knowledge and implementing education programs for parents and youth.

Management and Complications in Newborns

Complications were a common theme across the articles included in this study. A significant predictor of complications included gestational age and preoperative weight.¹⁷ High stoma output was a common complication associated with poor weight gain.^{37,40} Other complications included dermatitis, fungal infections, stomal obstruction, skin excoriation, and abscess formation.^{19,20,27,30,31,33} Schwarz et al. found that infants and children tend to excrete more sodium with an ileostomy and should be assessed to determine if sodium supplementation is needed.²⁵ Rees found that the most common reasons for colostomy creation included Hirschsprung's disease, anorectal abnormalities, and the need to address postoperative concerns.²⁹ It was found that elective and emergent stoma surgeries had similar complication rates among infants.²⁴ Umbilical ostomies were found to have an increase in prolapse/peristomal hernias.²⁶ A study Kargl et al. conducted found that although complication rates in infants are high, mortality is low, and morbidity is manageable.³⁶ Mollitt et al. found that sigmoid colostomies have lower complication rates and are therefore preferred.²³ Additionally, Singh et al. found that primary resection and anastomosis is a safe and viable alternative to stoma formation in preterm neonates with necrotizing enterocolitis and/or isolated intestinal perforation.³² Given the range of complications discussed, it is essential to conduct a systematic and comprehensive evaluation.

DISCUSSION

Summary of Evidence

This section of the OASIS scoping review focuses on the 26 studies we identified that analyzed maternal, child, and youth assessment. Studies were grouped into 3 themes. Four studies focused on pregnancy with an ostomy, and 7 focused on the impact of a child with an ostomy on family members, such as their mother. Finally, 16 articles focused on management and ostomy complications in the newborn population.

Pregnancy was a theme among the articles included in this review. Overall, pregnancy with a stoma is feasible and often successful,¹⁹ and both maternal and fetal outcomes are significantly better today than they have been historically.¹⁸ Authors discussed how pregnant individuals should be closely monitored as intestinal obstruction is a common complication of

having a stoma while pregnant, which labour pains can mask.²⁸ Recent literature by Bouwknecht et al., who evaluated stoma complications peri- and postpartum, also found that although pregnancy with a stoma is feasible and manageable, the most common complication is intestinal obstruction.⁴¹

Several articles examined the impact of stoma management on the family dynamic. Parents of a child with a stoma often expressed the need for additional education and social support when caring for a stoma.^{34,38,39} It was found that a lack of parental knowledge often resulted in stomal complications.³³ A recent literature review conducted by Mulyani and Anggraeni explored the influence of education on parents' ability to care for their child with a stoma.⁴² The authors found that education improved parents' knowledge and skills, demonstrating congruence with the findings of this review.

Having a stoma was also noted to negatively impact a child's body image, which frequent health assessments can exacerbate.^{10,22} A recent review Uzsen et al. conducted of nursing studies exploring children living with an ostomy also discussed findings related to body image.⁴³ It was recommended that children be able to share their body-image-related concerns along with their fears and anxieties to obtain support, further demonstrating the need for the assessment of perceived body image in this population.⁴³

Both individual characteristics and surgical factors appear to influence complication rates in children living with an ostomy. Predictors of adverse outcomes found within the literature included gestational age and preoperative weight.¹⁷ These were also found to be relevant factors in a recent literature review by Cho et al., who examined 61 infants with low birth weights who underwent enterostomy surgery.⁴⁴ High output ostomies, which have been associated with poor weight gain, were also found to be a postoperative complication in the literature.^{37,40} Other postoperative complications included skin-related complications (i.e., dermatitis, fungal infections, excoriation), abscess formation, and mechanical problems such as stomal obstruction.^{19,20,27,30,31,33}

Physiological changes in how sodium is managed in children can also add complexity as children tend to excrete more sodium than adults, therefore requiring closer assessment and the potential for sodium supplementation.²⁵ Furthermore, the current scoping review found similar complication rates between elective and emergency ostomy formation.²⁴ In contrast, more recent studies, such as that conducted by Alghamdi et al., compared complication rates in infants that underwent emergency versus elective ostomy surgery and found emergency cases had longer hospital stays than elective cases.⁴⁵ Ostomy-type sigmoid colostomies were found to have lower complication rates, making them the preferred method of stoma creation.²³

While there are a number of postoperative complications in the pediatric population, mortality was discussed in the litera-

ture as low and morbidity as manageable.³⁶ This demonstrates the importance of early complication identification through risk identification and assessment.

Limitations

There are several limitations to consider in this scoping review. Given the review's extensive findings, themes found within the overarching OASIS study were published across multiple articles. While this separation improves the ability to locate and synthesize findings, included results were limited to the thematic article for which they were selected. This may have led to some secondary findings of research studies being excluded from the overall review.

Due to the scope of the review, the search was limited to 2 databases and to studies published in English. There may be further literature that could contribute to an understanding of the topic, but it was not collected because of the exclusion criteria. The exclusion of grey literature, editorials, abstracts, and secondary literature may have also led to the exclusion of new data in the literature. However, focusing only on peer-reviewed literature enhances the methodological rigor of the findings.

Finally, no formal appraisal of studies included in this review was conducted. While this aligns with the scoping review methodology, study outcomes should be considered with caution. Findings provide insight into the current status of research and gaps and limitations in knowledge on the subject matter.

CONCLUSION

This scoping review provides an overview of the current evidence related to the assessment of individuals living with or caring for an individual living with an ostomy in the maternal, child, and youth populations. Findings addressed physical, psychosocial, and caregiver-related considerations for assessment in these populations when caring for individuals living with an ostomy. This review noted that the evidence related to the child population living with an ostomy is growing. However, further research is needed to address gaps, such as pregnancy and living with an ostomy. Assessment related to those living with an ostomy in the maternal, child, and youth population should consider potential complications, caregiver education and support, quality of life, and adjustment over time for those living with an ostomy long-term. The findings of this study underscore the importance of considering family-centered approaches to assessment in view of the unique factors associated with these vulnerable populations.

Implications of the Findings for Research

The scoping review findings reveal several important areas for future research. The review yielded limited results for several subgroups in the study. Few studies addressed pregnant individuals living with an ostomy. Many of the studies focusing

on living with an ostomy while pregnant were over 20 years old and/or were retrospective in design, highlighting the need for further research in this area.

Further research is needed on the long-term psychosocial effects of living with an ostomy and to understand the long-term development of an individual's identity, changes to mental health, and effects on social function for those individuals living with an ostomy. Furthermore, assessment to determine educational needs in the maternal, child, and youth populations may be beneficial in improving ostomy knowledge and self-efficacy in family units.

Implications of the Findings for Practice

The findings of this study demonstrate the importance of considering the unique needs of the maternal, child, and youth populations when assessing an individual living with an ostomy. For clinicians, this study identifies the need for individual monitoring for stoma-related complications during pregnancy and early infancy. Findings also stress the importance of considering the individual's adaptation and developmental and physiological changes when living with an ostomy over time. This study also identifies the importance of assessing the educational and psychosocial needs of caregivers and family and the need for education and psychosocial support access for parents and families given its correlation with patient outcomes. Integrating the findings of this study and the impact of assessment may help improve health outcomes and the overall well-being of this vulnerable population. ●

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Ostomy Assessment Systematic Integration of Studies (OASIS): Physical Assessment Scoping Review

ABSTRACT

Background

Individuals living with an ostomy experience multiple physical changes that require ongoing assessment. While physical assessment remains vital for those living with an ostomy, synthesized data identifying assessment practices and outcomes are lacking. This review, part of the OASIS review, which sought to identify the extent of current literature on assessing individuals living with an ostomy, synthesizes what is known about physical assessment in this population.

Methods

This scoping review followed the Joanna Briggs Institute (JBI) and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) methodology. We searched the MEDLINE and CINAHL databases without filters or date restrictions. Data collection occurred in January 2021. We analyzed data using qualitative content analysis and synthesized outcomes using the PAGER Framework to identify patterns, advances, gaps, evidence, and recommendations.

Results

This review included 74 studies published between 1951 and 2021. Most studies were retrospective in design. Themes in the data included demographics, stoma and peristomal assessment, stoma pouching systems, medical conditions and surgical risk, specialist support and knowledge for physical assessment, and diet and output.

Conclusions

Individualized holistic assessment is needed for those individuals living with an ostomy. Assessment should incorporate physical factors beyond the stoma alone, such as nutrition, hydration, and functional considerations. Standardized assessment frameworks and further research on assessment factors and outcomes are needed to enhance evidence-informed practice.

Key Words: Ostomy, nursing, nursing assessment, surgical stomas, physical examination, scoping review

Intégration systématique des études sur l'évaluation des stomies (OASIS) : examen de la portée de l'évaluation physique

RÉSUMÉ

Contexte

Les personnes vivant avec une stomie connaissent de multiples changements physiques qui nécessitent une évaluation continue. Bien que l'évaluation physique demeure essentielle pour les personnes vivant avec une stomie, il existe peu de données synthétisées permettant de déterminer les pratiques d'évaluation et leurs résultats. Le présent examen de la portée, qui s'inscrit dans le cadre de l'étude OASIS visant à déterminer l'étendue de la littérature actuelle sur l'évaluation des personnes vivant avec une stomie fait la synthèse des connaissances disponibles concernant l'évaluation physique au sein de cette population.

Méthodes

Cet examen de la portée a été réalisé conformément aux méthodologies du Joanna Briggs Institute (JBI) et de l'extension des Preferred Reporting Items for Systematic Reviews and Meta-Analyses pour les examens de la portée (PRISMA-ScR). Nous avons effectué une recherche dans les bases de données MEDLINE et CINAHL, sans filtre ni restriction de date. La collecte des données a eu lieu en janvier 2021. Les données ont été analysées au moyen d'une analyse qualitative de contenu, et les résultats ont été synthétisés à l'aide du cadre PAGER afin de cerner les tendances, les avancées, les lacunes, les données probantes et les recommandations.

Résultats

Cet examen comprenait 74 études publiées entre 1951 et 2021. La plupart des études étaient de nature rétrospective. Les thèmes qui se sont dégagés des données comprenaient les caractéristiques démographiques, l'évaluation de la stomie et de la région péristomiale, les systèmes d'appareillage de stomie, les affections médicales et les risques chirurgicaux, le soutien spécialisé et les connaissances nécessaires à l'évaluation physique, ainsi que l'alimentation et les effluents.

Conclusions

Une évaluation holistique et individualisée est nécessaire pour les personnes vivant avec une stomie. L'évaluation devrait tenir compte de facteurs physiques allant au-delà de la stomie elle-même, notamment la nutrition, l'hydratation et les considérations fonctionnelles. Des cadres d'évaluation normalisés ainsi que des recherches supplémentaires sur les facteurs et les résultats liés à l'évaluation sont nécessaires afin de renforcer les pratiques fondées sur des données probantes.

Mots-clés : stomie, soins infirmiers, évaluation infirmière, stomies chirurgicales, examen physique, examen de la portée

Conflicts of Interest

No authors note any competing interests as it relates to this study.

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Availability of Data and Materials

Data supporting the findings of this study are available within the article. A structured dataset is available from the corresponding author upon reasonable request.

Contribution Statement According to CRediT Roles

CH - Conceptualization, data curation, formal analysis, funding acquisition, investigation, methodology, project administration, supervision, validation, visualization, writing - original draft, writing - review and editing

BB - Conceptualization, data curation, formal analysis, methodology, validation, visualization, writing - review and editing

DF - Formal analysis, writing - original draft

GH - Data curation

EM - Data curation

KM - Data curation, formal analysis, visualization, writing - original draft

AL - Data curation, formal analysis, visualization

MK - Writing - original draft

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INTRODUCTION

For those living with a urinary or fecal diversion, many factors must be considered when monitoring and managing patient health and well-being after a surgery. With as many as 20–30% of patients who have had ileostomy surgery being readmitted to a hospital, consideration of physical assessment factors, such as dehydration, the leading cause of hospital readmission, is of the utmost importance in this population.¹

An ostomy is a surgical procedure intended to divert either stool or urine.² An ostomy is commonly used to treat cancer; however, other diseases that affect the gastrointestinal or urinary tract may also require an ostomy. For instance, inflammatory bowel disease, diverticular disease, and fecal incontinence may also require an ostomy.³

Individuals undergoing ostomy surgery have been shown to have decreased physical and sexual functioning, sleep disturbance, and micturition problems.⁴ A study conducted in Turkey found that 66.2% of ostomy patients have poor sleep quality.⁵ Other studies related to living with an ostomy have shown that physical activity, sleep, and an overall healthy lifestyle can reduce chronic disease and prevent some common difficulties, such as hernias and body pain.^{6,7} A study conducted in the United Kingdom suggests that an increase in physical activity is safe and acceptable for patients living with an ostomy, and findings show promise for improving outcomes.⁸ Individuals living with an ostomy adapt to various restrictions involving diet, dressing, physical exercise, recreation, and intimate behavior.⁹ Repić and Ivanović proposed that the assessment of the physical well-being of ostomy patients is necessary to provide continuous support to patients and to overcome physical issues that affect their quality of life.¹⁰

The OASIS study, an extensive scoping review of ostomy assessment, seeks to provide the current status of knowledge related to ostomy assessment within the peer-reviewed literature. This manuscript, as part of the OASIS study, seeks to better understand the body of knowledge and literature related to ostomies and physical assessment.

Aim

The aim of this article, as part of the OASIS scoping review, is to explore the evidence base related to the physical assessment of individuals living with an ostomy. The OASIS scoping review aims to determine the evidence base related to assessment of individuals living with an ostomy. The OASIS scoping review findings have been presented in 5 articles, including (1) assessment tools, (2) psychosocial assessment, (3) maternal, child, and youth assessment, (4) physical assessment, and (5) complication assessment.

Identification of Research Questions

The primary research question for the OASIS study was: What is the evidence base for assessing individuals living with an ostomy? This question is written in accordance with the PCC Framework, which stands for population, concept, and context,¹¹ where the population is individuals living with an ostomy, the concept is the assessment of individuals living with an ostomy, and the context is the evidence base related to the assessment of individuals living with an ostomy.

METHODS

This review was not preregistered and was conducted in accordance with the Joanna Briggs Institute (JBI) framework and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR).^{11,12} We conducted a comprehensive search using MEDLINE and CINAHL databases in January 2021. No limitations or filters were applied during the search. Studies were included if they contributed to knowledge related to assessing individuals living with an ostomy, stoma assessment, peristomal skin assessment, and/or peristomal plane assessment. Secondary literature, position statements, abstracts, editorials, grey literature, and assessment factors related to pre-stoma creation or post-stoma reversal were excluded.

We used Covidence® software, and 7 independent reviewers double-screened and selected articles based on their titles and abstracts, following the inclusion and exclusion criteria outlined in the detailed methodology section of the assessment tools manuscript. A nurse specialized in wound, ostomy and continence (NSWOC) reviewed conflicts in the initial screening, and a second NSWOC aided in a secondary, dual screening of the remaining full texts to make the final selections. As needed, disagreements regarding selection were discussed until consensus was reached.

Data from the articles, including the author and year, country of origin, purpose and aim of the study, research design,

sample and setting, data analysis, results, and any accessory comments (for instance, whether ethics approval was obtained), were extracted and compiled into tables. We used the tables to create a searchable database of the articles' findings, following the Elo and Kyngas content analysis approach.¹³ The findings were condensed and presented in accordance with the PAGER Framework by Bradbury-Jones et al. in Table 1, which outlines the patterns in the data, the advances made to knowledge, gaps identified in the literature, evidence for practice, and recommendations for subsequent research.¹⁴ Detailed methods have been defined in a prior publication of the OASIS study, in the assessment tools manuscript.¹⁵

RESULTS

We located 42,059 articles as part of the OASIS review across 2 research databases. After removing duplicates, we double-screened 30,035 articles by title and abstract for relevance. A full-text review of 741 articles led to 383 studies being included in the overall OASIS study results. Given the number and significance of results, we reported findings across 5 thematic manuscripts: assessment tools; maternal, child, and youth assessment; physical assessment; psychosocial assessment; and complication assessment. In some instances, when an article addressed multiple themes, we included only findings most relevant to the assigned manuscript. This decision was based on alignment with the manuscript theme or practical distribution across manuscripts. Heerschap et al. (2026) published the complete study methodology elsewhere.¹⁵ The following results focus on the physical assessment of individuals living with an ostomy. Figure 1 shows the complete PRISMA diagram for the OASIS study.

Characteristics of Sources of Evidence

This scoping review included 74 articles. Of these, most were from the United States (n=28) and the United Kingdom (n=10). Brazil and Japan both contributed 5 articles. Australia, Italy, and Canada each contributed 3 articles. Germany, Spain, Sweden, Switzerland, and Denmark each contributed 2 articles. China, the Czech Republic, Greece, Ireland, Korea, Pakistan, and Turkey each contributed 1 article. The data ranged from 1951 to 2021, with most papers from 2019 (n=9), the remainder from 1951 to 2018 (n=57) and 2020–2021 (n=8). The most common research design among the included articles was retrospective (n=26). This was followed by cross-sectional studies (n=13), case series (n=6), prospective (n=6), case studies (n=4), descriptive (n=4), mixed method (n=3), pilot studies (n=2), quality improvement (n=2), secondary analysis (n=2), Delphi (n=2), randomized controlled trial (n=2), cohort study (n=1), and lab-based study (n=1). Most articles used descriptive analysis techniques (n=26) and inferential approaches (n=26). The remaining articles used a mixed-methods approach (n=22). Most of the articles did not mention whether ethics approval was obtained (n=44). Some articles were found not to require ethics approval based on their study design (n=2), and the remaining included articles obtained ethics approval. Most included studies sought to bet-

Table 1: PAGER Framework

PATTERN	ADVANCES	GAPS	EVIDENCE FOR PRACTICE	RESEARCH RECOMMENDATIONS
Demographics	Associations have been demonstrated between high BMI and increased complications; women have been shown to have increased leakage and sleep disturbances related to their ostomy; older adults have been shown to be at increased risk for gallstone and renal impairment	There remains limited evidence related to demographic variables and long-term outcomes	Individualized assessment considering demographic data, such as BMI, and gender-specific concerns, such as sleep and leakage	Large cohort studies determining long-term influence of demographic factors, including underrepresented populations
Stoma and Peristomal Assessment	Stoma height, time since surgery, and output characteristics were discussed as predictors of peristomal skin complications to assess for	There is a lack of studies describing routine stoma assessment beyond height, and there remains limited evidence regarding frequency of ongoing stoma assessment	Routinely monitor stoma height and monitor for peristomal skin complications	Further studies are needed to determine the most important aspects and frequency of a stoma/peristomal assessment
Pouching Systems and Leakage	Leakage has been discussed as relating to postoperative body contour changes, high-output effluent, frequent pouch changes, and difficulties with flange adhesion	Few studies focus on assessment of abdominal contours, pouching fit, or leakage patterns	Consider assessment of abdominal contour, pouching seal, and history of leakage and frequency of pouching system changes with each patient visit	Further research should focus on assessment of leakage risk and evaluating assessment for pouching system fit
Medical Conditions, Risks, and Surgery	Diabetes, Crohn's disease, cardiovascular issues, emergency surgery, hand-sewn anastomosis, chemotherapy, radiation therapy, and undergoing ileostomy surgery were assessment considerations associated with increased risk for complications	Few studies focused on the systematic assessment of medical and surgical risk factors that may affect care postsurgery	Include a medical and surgical history during physical assessments	Further studies are needed to link medical and surgical risk factors to complication detection
Healthcare Support and Knowledge	Specialized ostomy nurse involvement and patient education have been discussed as leading to fewer physical complications for those living with an ostomy. Literature has discussed benefits to telemedicine for assessment and care plan development with similar outcomes to in-person consultation	There is little research available related to access to assessment by specialized ostomy nurses, and limited data on assessing patient and caregiver knowledge related to physical warning signs of complications.	Assess patient and caregiver knowledge related to physical warning signs of complications and document access to specialized ostomy clinicians. Telemedicine may be considered when in-person assessment is not feasible	Research is needed on how to incorporate knowledge of physical warning signs of complications and access to specialist support into routine physical assessment
Diet, Hydration, and Medication Absorption	High-output stomas have been linked to dehydration, electrolyte imbalances, malnutrition, and readmission. Postoperative dietary changes and changes to how medications are absorbed have also been reported in the literature	There are research gaps related to the systematic assessment of ostomy output volume, hydration status, nutritional markers, and medication absorption in routine care	Stoma volume, signs of dehydration, nutritional status, and medication formulations should be considered when assessing the individual living with an ostomy	Further research is needed focusing on frequency and evaluation methods for ostomy output, hydration, nutrition, and medication absorption

ter understand complications of having an ostomy (n=30). Other studies aimed to identify risk factors and understand their role in the development of complications (n=19). Many of the articles focused on developing better assessment tools (n=10), while some studied the impact an ostomy has on nutrition (n=8). Telemedicine was a common theme (n=4), and some articles focused on demographics as they relate to ostomy care/complications (n=3).

Results of Individual Sources of Evidence

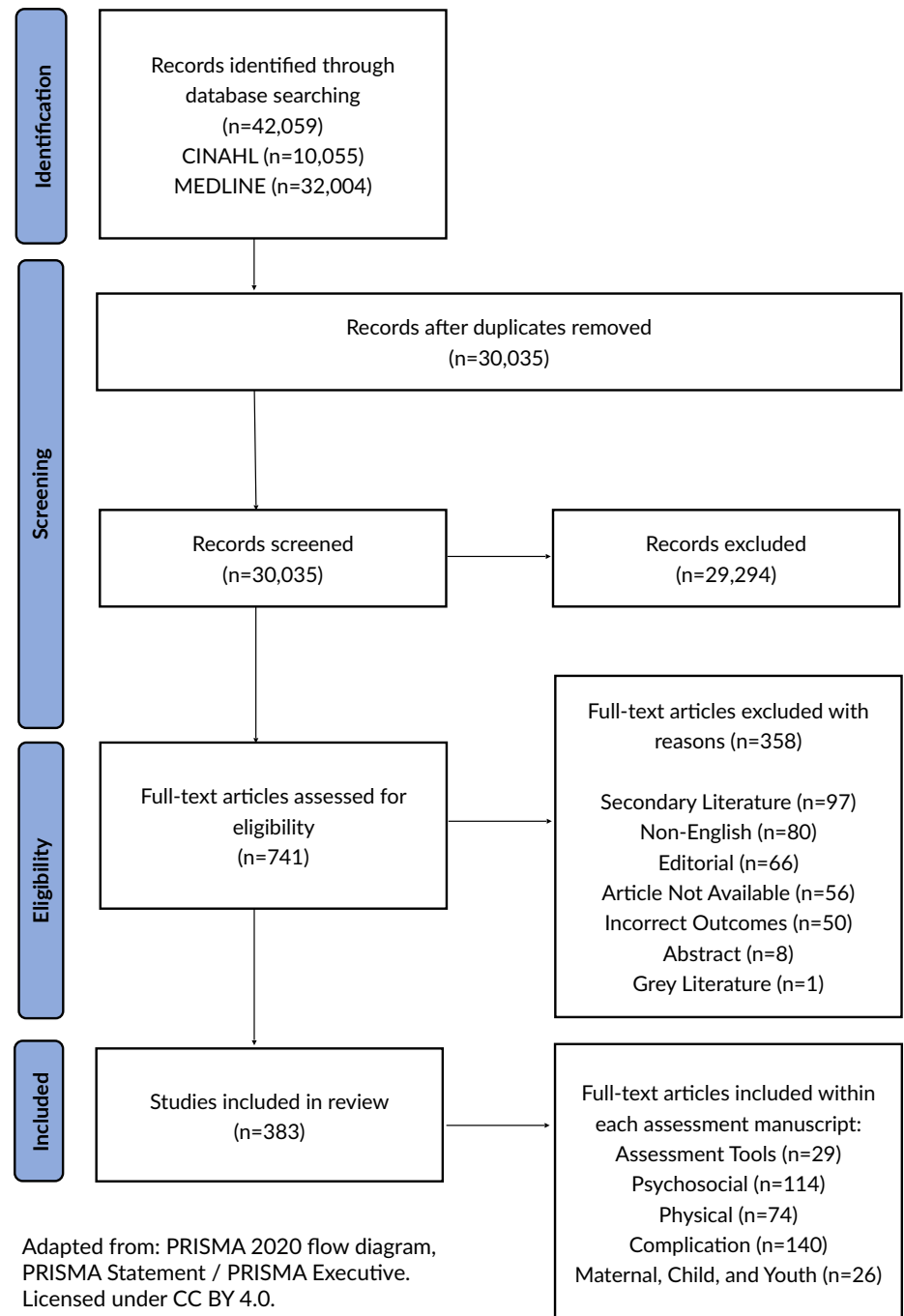
Following our inductive content analysis approach, the findings from this portion of the OASIS review were grouped into 6 categories: (1) demographics; (2) stoma and peristomal assessment; (3) stoma pouching systems; (4) medical conditions, risks, and surgery; (5) specialist support and knowledge for physical assessment; and (6) diet and output. These findings provide an overview of considerations for the physical impacts on individuals living with a stoma that should be considered when conducting an assessment, as they may affect an individual's assessment.

Demographics

Several studies highlighted gender differences associated with having a stoma. Women more frequently reported leakage from their collection device and experienced sleep disruptions more often than men.^{16,17} Men were found to report fewer stoma complications than women but exhibited fear avoidance of physical activity, which could have a potentially negative impact on rehabilitation.^{18–20} It was also noted that older women could benefit from gallbladder screening, as cholelithiasis is more common in this population.²¹ Although gender differences were noted in several studies, Selau et al. found that changes to daily living should be assessed at the individual level, regardless of gender.²²

Stomal complications and risks were observed to follow a trend with age. Older adults were seen to face more complications, such as hypertension, renal impairment, and gallstones.^{21,23–25} Some studies, however, found an in-

Figure 1: PRISMA Flow Diagram



verse relationship. Cottam et al. and Whiteley and Sinclair found that the rate of stomal complications decreases with age.^{26,27} Regarding hospital readmission, Fish et al. found that those over 65 had predictable courses of treatment if readmitted to a hospital, compared with younger individuals.²⁸ Finally, Pittman discussed the average age of those living with different types of ostomies, noting that those with a colostomy have

an average age higher than those with an ileostomy and those with an ileostomy greater than those with a urostomy.²⁹ Pittman further noted that while approaching significance, age was not found to be a predictor associated with ostomy complications.²⁹

A patient's body mass index (BMI) was found to be a significant predictor of complications related to having a sto-

ma.^{19,26,30–33} Several studies also highlighted that when a patient is more competent in caring for their stoma, complication rates decrease.^{34–37}

Individuals living with a stoma may change their pouching system frequently for personal and/or cultural reasons.³⁸ Burch noted an association between frequent changing of a collection device and skin irritation.³⁸ It has been recommended that individuals who change their pouching systems frequently should be counseled on techniques to avoid irritation while also respecting personal/cultural practices.³⁸

Stoma and Peristomal Assessment

Many studies included in this review found that stoma properties were significant indicators of complication development. A common property studied was stoma height. Stoma height was found to predict the likelihood of complications, such as skin irritation, significantly.^{26,29,32} The assessment of a patient's stoma height was also found to be beneficial in determining the best collection device to use to prevent complications.^{38–40} If stoma color changes are present, a test tube test in which a blood collection tube is placed in the stoma and a video bronchoscope is used within the tube to assess the tissues has been discussed.⁴¹ This method of assessment was found to be safe and practical and allowed for enhanced visualization at the bedside.⁴¹

The type of stoma should also be considered during assessment. Ihnat et al. noted that those individuals with a diverting loop ileostomy had higher 30-day morbidity rates than those with an anastomosis alone. However, those with an anastomosis alone were at higher risk for an anastomotic leak.⁴² Those with a diverting loop ileostomy were also at risk for longer hospital stays, and small bowel obstruction was found to be the most common complication with this ostomy type.⁴²

Additionally, as surgical techniques change, assessing how a stoma was formed may help determine complication formation and risk. Miller et al., for example, described a technique for ileal conduit formation that does not evert the stoma when eversion is difficult.⁴³ This type of stoma should protrude well from the peristomal skin without tension on the bowel and mesentery.⁴³

A positive correlation was also found between the likelihood of developing a peristomal skin complication and the length of time that an individual has a stoma.^{44,45} For example, Toh et al. studied peristomal pyoderma gangrenosum (PPG) and found that the median duration between stoma formation and PPG diagnosis was 101.5 days.⁴⁶

The literature has also discussed the importance of the patient's abdominal contours, peristomal plane, and stoma location. Warren et al. discussed how stoma location can affect proper function.⁴⁷ The distance from surface structures such as the umbilical region or bony protrusions may increase the risk of leakage if it affects the seal of the pouching system.⁴⁷

Ostomy output should also be considered. Casey and Francescon observed an interesting complication in a patient with a urostomy, whereby a persistent urinary tract infection presented as purple effluent.⁴⁸ This has been termed Purple Bag Syndrome (PUBS).⁴⁸

Stoma Pouching Systems

Nichols found that individuals living with an ostomy report more limitations on their physical activity than the general population.⁴⁹ A fear of pouching system leakage is a common experience among those living with an ostomy. Those with a high-output fecal stoma often have higher concentrations of digestive enzymes in their effluent, which dissolve hydrocolloid coatings and erode skin, leading to leakage and skin irritation.⁵⁰ Walls suggested postoperative assessment for changes in body contours, which may lead to leakage.⁵¹ Colwell et al. noted that in addition to prevention of leakage, selection of an appropriate pouching system can also impact physical comfort, such as prevention of itching under the flange.⁵²

Medical Conditions, Risks, and Surgery

Several pre-existing conditions, such as diabetes, Crohn's disease, and cardiovascular disease, were found to be significantly correlated with complications related to having a stoma.^{36,53–55} The creation of an ostomy was found to be an independent risk factor for abdominal infections.⁵⁶ Diverting loop ileostomies were found to have significantly higher complication rates when compared to other ostomy types.^{57,58} Renal impairment is a risk factor for those living with a loop ileostomy.⁵⁹ The formation of a permanent stoma was found to be significantly associated with postoperative systemic inflammatory responses.⁶⁰

Common readmission risk factors for postoperative complications included hand-sewn anastomosis that was found to be a risk factor for anastomotic leak.⁶¹ Sultan et al. also noted that despite a protective stoma, anastomotic leaks can be a postoperative complication and therefore should be considered during assessment.⁶² Another risk factor for postoperative complications is whether the surgery to create the stoma was performed in an emergency or an elective manner. Emergency surgeries were found to be a significant predictor of postoperative peristomal skin complications.⁶³ Both chemotherapy and radiation therapy were also found to be predictors of complications.^{57,64} A study by Oliphant et al. found that at 3 months postoperatively, loop ileostomy patients undergoing chemotherapy had lower stoma function scores than those not undergoing chemotherapy.⁶⁵ Tsukada et al. found that another complication among those living with a urostomy was the formation of alkaline crystals in the mucosa of the stoma openings.⁶⁶ This was seen to cause stenosis and severe pain.⁶⁶

Pain was frequently discussed throughout the literature, primarily regarding ostomy complications. Burch noted that the cause of sore peristomal skin can be difficult to determine at times and emphasizes the importance of a compre-

hensive assessment to identify the cause of discomfort before treatment.³⁸ Pittman discussed how stoma and abdominal characteristics are statistically correlated to pain, with those with flatter stomas and problematic skin folds, for example, demonstrating increased levels of pain.²⁹ It was also found that activity of daily living scores and gender were associated with more pain, with females living with an ostomy having higher mean complication scores.²⁹

Pittman also found that activity of daily living scores correlated with less bleeding and increased stomal necrosis in a univariate analysis.²⁹ When considered in a multivariate analysis of predictors of ostomy complications, while close to statistical significance, activity of daily living scores were not found to be a significant predictor of ostomy complications.²⁹ In a literature review on risk factors related to ostomy complications, Pittman noted a lack of literature examining the impact of activity of daily living function on the development of ostomy complications.²⁹

Specialist Support and Knowledge for Physical Assessment

The clinician's expertise and knowledge, as well as access to specialized ostomy clinicians, influence the physical assessment of individuals living with an ostomy. Several studies highlighted that involvement of a nurse specialized in ostomy care was associated with improved physical outcomes for those individuals living with an ostomy.^{27,67} Nordström et al. reported that stoma care routines can significantly affect physical outcomes for individuals living with an ostomy and should be a focus of training for a specialized ostomy nurse.⁶⁷ Whiteley and Sinclair also emphasized that specialized nurse input reduced physical complications.²⁷

Studies identified links between inadequate knowledge of stoma self-care and increased peristomal skin complications.^{35,37,68} This demonstrates the importance of clinicians assessing an individual's ability to recognize and report physical complications. Clinician education on physical assessment was also important; Foa et al. found that after a professional training session, the incidence of ostomy-related infections decreased.⁶⁹ Stoma education was also found to improve nurses' confidence in performing physical assessment using an ostomy algorithm to guide plans of care.⁷⁰

Televideo conferencing is emerging as an alternative to in-person visits for clinician physical assessment. Compared with in-person visits, 95% of care plans made during a televideo session were identical to plans made during in-person appointments.⁷¹ Multiple studies found that individuals living with a stoma were satisfied with televideo conferencing.^{72,73} Xu et al. found that using a 4G wireless network ensured that televideo sessions were free from limitations associated with a wired network system.⁷⁴ These findings demonstrate that examination of items such as the stoma, peristomal skin, pouch fit, and abdominal contour, may be performed via telemedicine, increasing access to expert physical assessment for patients not otherwise able to be assessed in person.

Diet and Output

Diet was observed to be an important metric to manage for those living with an ostomy, as many patients who undergo ostomy creation are at risk for malnutrition.^{75,76} Obtaining a baseline nutritional status is beneficial for clinical management to identify changes in nutrition status.⁷⁷ Selau et al. observed changes in eating habits during the postoperative period that affected nutritional status.²² Zoeller found that using the Nutrition Quality of Life tool and a hand dynamometer can accurately determine a patient's nutritional status.⁷⁸ Some nutritional metrics measured included iron, vitamins A and C, and dietary fiber.^{79,80} Bulman found that encouraging fruit and vegetable intake can help meet dietary needs.⁸¹

Another important factor monitored was a patient's ability to absorb medication following ostomy surgery. Moore found that factors that impact medication absorption include the type of stoma and the form in which the medication is prescribed.⁸² Enteric-coated medications were observed not to be absorbed fully when compared to non-coated medications.⁸²

Dehydration was a common cause of hospital readmission.^{83,84} An effective way to determine whether a patient is at risk of dehydration is to measure the volume of output from their stoma. Patients with high-output stomas remained in the hospital longer and were observed to be at higher risk of electrolyte and acid-base imbalances.⁸⁵⁻⁸⁷ Complications of dehydration studied include lethargy and muscle cramps, as well as urinary stones.^{88,89}

DISCUSSION

Summary of Evidence

Within this section of the OASIS scoping review focusing on physical assessment, we identified 74 studies. Of these 74 studies, 23 focused on demographic characteristics, 11 on stoma and peristomal assessment, 4 on stoma pouching systems, and 14 on medical conditions, risks, and surgery. Furthermore, 11 studies focused on health care, support, and knowledge, while 11 focused on diet and output.

The results of this study demonstrate that physical assessment of individuals living with an ostomy goes beyond assessment of the stoma and peristomal region and should incorporate a holistic understanding of the patient. A comprehensive assessment should include factors, such as pain, nutrition, hydration, comorbidities, mobility, and the functional impact of stoma management on daily life. Standardizing assessment processes is an important future direction to improve outcomes and reduce complications.

Studies included in this review discussed demographic and physical factors in individuals living with an ostomy, including age, gender, and BMI. These factors were discussed as associated with an elevated risk of complications. For example, Baldwin et al. discussed sleep disturbances as a more common complication in women living with an ostomy.¹⁶ Martin-Gil et

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al. also found gender differences as they relate to having a stoma.⁹⁰ It was noted that women tended to experience more fatigue, anxiety regarding leakage, and social difficulties (avoiding physical contact, social withdrawal).⁹⁰ Age was discussed throughout the literature in relation to ostomy complications with varying results. Study results varied and included positive and negative correlations, as well as no statistical significance, warranting further research to clarify this variable.

Body mass index was another factor discussed in the literature as being related to increased risk of complications, indicating a need for consideration during the assessment of individuals living with an ostomy. A recent systematic review and meta-analysis by Sadiq et al. found that an elevated BMI can increase risk for peristomal hernia formation and for stoma and peristomal complications.⁹¹ Given that obesity can alter abdominal contours, BMI should be considered when selecting a pouching system that will appropriately contour to the abdominal plane of an individual living with an ostomy.

In addition to BMI and considerations regarding peristomal and abdominal contours, stoma height is another important factor to consider during assessment, as it affects both complication risk and stoma pouching selection. Zelga et al., in a scoping review on patient-related factors associated with stoma and peristomal complications, noted that lower stoma height can significantly increase the risk of developing ostomy-related complications.⁹² The literature also examined how women, having a higher likelihood of emergency stoma formation and body image preferences leading to lower stoma height, may be at higher risk for ostomy-related complications.⁹²

Several pre-existing medical conditions are linked to ostomy complications and readmission rates. Conditions, such as diabetes, Crohn's disease, and cardiovascular disease, were found to be significantly correlated with the development of complications related to having a stoma. Surgical variables, such as having a hand-sewn anastomosis, were linked to a higher risk of an anastomotic leak, as was undergoing emergency ostomy surgery. Chemotherapy was also a predictor of complications. Studies found that loop ileostomy patients undergoing chemotherapy treatment had lower stoma function scores than those in the control group. These considerations underscore the importance of a detailed medical and surgical history. Findings are consistent with recent literature. For example, a study by James et al. examined patient readmissions following ostomy surgery, noting that readmitted patients exhibited significantly higher rates of diabetes, Crohn's disease, hypertension, and cardiovascular disease, among other factors.⁹³

The literature shows that education for individuals living with an ostomy and the inclusion of specialized nurses in ostomy care decrease complication rates. This emphasizes the need to assess the knowledge level of an individual living with an ostomy regarding their surgery and care needs, as well as

where the inclusion of a specialized ostomy nurse may benefit their care. Heerschap and Duff, in a systematic review on the value of nurses specialized in wound, ostomy, and continence, found that the literature shows ostomy-specialized nurses can improve quality of life and provide education for those living with an ostomy and their caregivers.⁹⁴

Telemedicine is emerging as an alternative to in-person visits discussed in the literature. Most care plans developed during a teleconferencing session were equivalent to those developed during in-person appointments. These findings are similar to other studies examining differences in care plan development between telemedicine and in-person care plan development. Demaerschalk et al. examined the efficacy of telemedicine visits.⁹⁵ In this study, participants underwent a televideo conference and then an in-person visit. The study found that the diagnosis established via a televideo visit matched the in-person diagnosis in 86.9% of cases.⁹⁵

Finally, hydration, nutrition, and medication absorption emerged in the literature as key assessment considerations for those living with an ostomy. High-output stomas were associated with dehydration, electrolyte imbalance, and extended hospital stays. The literature noted that nutritional assessment is important, given postoperative dietary changes. The literature also discussed monitoring nutritional metrics. In addition, changes to absorption postoperatively in certain ostomy types were noted to affect medication absorption, such as enteric-coated medications. Recent evidence by Berger et al. also highlighted the need for medication absorption given changes in malabsorption of vitamins and nutrients, especially in those with short bowel syndrome.⁹⁶

Strengths and Limitations

The findings of this scoping review cover data from over 74 studies published over 70 years. This provided a deep, comprehensive understanding of what is known about the physical assessment of individuals living with an ostomy up to the year of data collection. The study used JBI methodology, PRISMA-ScR guidelines, and the PAGER Framework for reporting findings to strengthen reporting. However, several study limitations must be recognized. Because of the number of findings in the OASIS study, as described in the primary methods publication by Heerschap et al.,¹⁵ articles addressing multiple themes across multiple manuscripts were allocated to a single manuscript. As a result, some secondary findings may have been excluded. Additionally, the data collection for this study occurred in January 2021 and was limited to the MEDLINE and CINAHL databases. These limitations further underscore the need for future studies to update this article's findings.

CONCLUSION

This review identified 74 studies focusing on the physical assessment of individuals living with an ostomy. The findings demonstrated varied assessment approaches. Study findings

demonstrate that physical assessment includes not only the stoma but the whole individual, including nutritional status, hydration, health history, and pouching system fit. Variables, such as gender, age, and BMI, can affect complication risk, while care from a nurse specialized in ostomy management and patient education may improve outcomes.

Although many studies examined physical assessment, much of the evidence was descriptive, highlighting the need for longitudinal studies to evaluate assessment outcomes. Integrating a comprehensive physical assessment into care, supported by an interdisciplinary team including a specialized ostomy nurse, may help enhance quality of life, reduce readmissions, and promote recovery. Further research is needed to enhance evidence-informed physical assessment for those individuals living with an ostomy.

Implications of the Findings for Research

Despite the large number of studies on physical assessment of individuals living with an ostomy, the overall strength of the evidence is limited because many are retrospective and use descriptive methods. Literature on activity of daily living function and individual physical factors, such

as dexterity and their impact on living with an ostomy, was found to be lacking in the studies included in this review and would benefit from future research. The review included few prospective studies and even fewer randomized controlled trials. Further research should focus on longitudinal studies to determine the benefits and outcomes of physical assessment variables. Furthermore, additional research should determine the benefits of assessing for improved patient outcomes after specialized nurse education, as well as the importance and outcomes of dietary and hydration assessment in the postoperative period.

Implications of the Findings for Practice

The findings of this study support the need for individualized holistic assessment of those individuals living with an ostomy. Assessment should include evaluation of hydration, nutrition, pouching system fit, stomal protrusion, and peristomal skin. Additionally, demographic variables that may affect ostomy management and link to psychosocial outcomes should be considered. The psychosocial effects of physical outcomes when living with an ostomy demonstrate the importance of a holistic assessment rather than consideration of physical or psychosocial factors alone. •

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