GENDER·NET Plus
Promoting gender equality in H2020 and the ERA

iKASCADE
Identifying key prescribing CASCADes in the Elderly:
a transnational initiative on drug safety

Initial project duration – 36 months – starting from 1 October 2018, new end date 1 October 2023, extended 12 months due to COVID-19

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Geriatrics, Pharmacy, Psychology, Epidemiology, Orthopedics

Overview

iKASCADE, a project about prescribing cascades, addresses an important and under-researched aspect of this iatrogenic medication harm. Prescribing cascades occur when a health care provider misinterprets the side effect of a drug as a new medical condition and prescribes a second, potentially unnecessary drug to treat the side effect. Since women live longer than men, they are more likely to be prescribed potentially inappropriate drug therapies and experience more drug-related adverse events. It is hypothesised that prescribing cascades have different effects according to sex and gender.

Our objectives are to use the expertise of our international consortium and international prescribing cascade data to: 1) Create a comprehensive inventory of prescribing cascades; 2) examine and compare the frequency of prescribing cascades by sex and country in three key settings of care (hospital, long-term care home, and community) using clinical and administrative data; and 3) explore how sex and gender are associated with the development and impact of prescribing cascades.

Progress to date

The project has achieved partial completion of its objectives, including completion of the Sex and Gender Portraits and Health System Analysis of each Project Partner country (Canada, Ireland, Israel, Italy), and completion of the Inventory of Prescribing Cascades. We have presented parts of the project internationally, such as two presentations and one symposium at the 2019 European Geriatric Medicine Society Congress, as well as a remote presentation at the 2021 Congress. We have been very active in manuscript preparation, submission and publication (e.g., CMAJ 2021; European Geriatric Medicine 2021; Lancet Healthy Longevity 2021), as well as in raising awareness about the issue of prescribing cascades more broadly (New York Times 2020). We are well on our way to quantitatively comparing the frequency of the top prescribing cascades as identified in the Inventory of Prescribing Cascades by sex and country in three key settings of care (hospital, long-term care home, and community) using clinical and administrative data. We are currently in the midst of designing a qualitative focus group study with the aim of getting at how sex and gender are associated with the development and impact of prescribing cascades, with a specific focus on those rated as very important on the Inventory. The factors most important in achieving these objectives was consistent connection between teams and team members through the monthly international iKASCADE Consortium team meetings and the smaller, monthly Sex and Gender Working Group meetings, where feedback and progress was consistently discussed.

Impact of COVID-19

All team members on the project were affected by the COVID-19 health crisis, most notably due to the shutting down of all non-essential research activities during the worst of the pandemic. Specifically, the Canadian Team experienced delays due to redeployment to clinical care responsibilities, as well as the redeployment of research support staff to other, COVID-19 related duties (e.g., active screening).

Two postgraduate pharmacists had been recruited to work on iKASCADE in Ireland through UCC. However, due to COVID restrictions leading to a lack of progress in their parallel PhD studies, both pharmacists decided to leave the iKASCADE project. This has disrupted data collection and analysis relating to the core objectives of iKASCADE.

Team members

	Woman	Man	Other
Gender balance in the whole consortium	11 (55%)	9 (45%)	0 (0%)
Presence of women as lead researchers/PIs	8 (75%)	3 (25%)	0 (0%)
Gender Experts in the team	2 (66%)	1 (33%)	0 (0%)
Subsequent team members trained (Gender equality)	10 (66%)	5 (33%)	0 (0%)

Contribution to the achievement of UN Sustainable Development Goals (SDGs)

SDG 5 Gender Equality: We have not completed all data collection and analyses and so are unable to assess project impact.

SDG 3: Good health and well-being: We have not completed all data collection and analyses and so are unable to assess project impact.

Differences/inequalities between women and men highlighted by the project

At present the project has documented already known differences between women and men in each partner country in four domains: (i) access to assets (socioeconomic status); (i) beliefs and perceptions about men and women; (iii) activities, roles, and engagement in society); and (iv) institutions, laws, and policies (gender equity initiatives). This information, taken together with the international prescribing cascade data tables, will be used to generate hypotheses regarding how gender roles, relations (i.e. gender equity), and power relations may contribute to observed trends and differences in prescribing cascades across countries.

Other differences have not been highlighted, as an exploration of how sex and gender are associated with the development and impact of prescribing cascades is our final objective. We are in the midst of examining these associations. Moreover, we are in the process of formulating vignettes that incorporate a prescribing cascade with identified sex differences from the modified Delphi process in order to explore implicit gender biases in prescribers. This is described in more detail in our responses to the mid-term monitoring template.

Positive impact of the project on gender equality/scientific evidence on gender in the field

Our aim is to garner international recognition of prescribing cascades and ultimately change health system management and policies to improve the health of older men and women. Specific expected outcomes include: (i) development of an inventory of common prescribing cascades; (ii) detailed understanding of sex-specific prescribing cascades in hospital, long-term care, and community settings; (iii) greater understanding of similarities or differences regarding prescribing cascades in six countries; and (iv) a nascent understanding of the ways in which gender dimensions may influence the development or treatment of prescribing cascades. We are exploring the possibility of creating a position paper from this work. The intent is that this paper will inform recommendations around strategies tailored for women and men to reduce prescribing cascades and thereby improve their health and wellness. The novel component of profiling sex and gender in this important international issue will also add value by elevating the research community's consideration of sex and gender more broadly within geriatric pharmacology and geriatric medicine research.

Socio-economic impact; involvement of policy makers/civil society

We have not completed all data collection and analyses and so are not yet able to assess socioeconomic impact.

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