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SHORT COMMUNICATION

The Belgian EBP Program: network governance to improve efficiency and effectiveness of EBP uptake

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Abstract
In 2016, the Belgian Minister for Social Affairs and Public Health decided to set up a central governance structure for Evidence-Based Practice. The underlying model, consisting of 6 EBP life cycle cells (prioritization, development, validation, dissemination, implementation and evaluation) and a bipolar governance layer was developed in 2017. Based on the characteristics of the Belgian EBP landscape, a Network Administrative Organisation was chosen to coordinate and facilitate the operational processes in the EBP life cycle and act as intermediate between the two forces: stakeholders and funders/policy makers. Scientific processes remain the responsibility of the EBP experts in the cells. As organizational change can result in resistance, building trust and consensus is a very important success factor for the setup of the network. The process is now in an advanced stage and in 2019 the EBP governance structure will be operationalised.

Keywords
Evidence-Based Practice, network governance, Network Administrative Organisation

Background
Although the main aim of Evidence-Based Practice (EBP) is improvement of quality of care, and despite all the efforts to build good evidence the actual use of EBP in every day practice remains low[1]. Moreover, the Belgian EBP development, dissemination and implementation landscape remains scattered[2]. That is why the Belgian Minister of Public Health decided in 2016 to optimize this situation, by means of a national governance plan for EBP in Belgium[3]. This governance plan has to serve a twofold purpose: (1) to steer the programmatic further introduction, dissemination and implementation of EBP, and (2) to be adaptive to developments in the health care landscape which should allow for further prioritisation and differentiation (e.g. over disciplines or specialties). The focus of the governance plan is at those organisations that develop, validate, disseminate or implement EBP guidelines and other EBP related products, such as layman guidelines. The governance plan has to secure general conditions and specific requirements: (1) quality and accessibility (via trusted media) of EBP products has to be guaranteed; (2) EBP literacy in patients and informal care givers has to be improved and facilitated; (3) efficiency and coherence of EBP product development, validation, dissemination and implementation have to be guaranteed and (4) cost of guideline production validation, dissemination and implementation needs to be controlled by the governance structure. In 2016–2017 the EBP Plan was created, building on the current practice in the Belgian EBP-domain. The underlying idea was that EBP consists of a number of consecutive steps (life cycle cells): topic prioritisation, product development, product validation, active dissemination, implementation in end users, and evaluation (Figure 1). Every life cycle cell has its coordinator (core partner). The governance plan also makes clear distinction between the purely scientific EBP processes and the governance and management processes of the EBP plan. The former are (and remain) under the responsibility of the EBP experts, while the latter will be coordinated and facilitated by and independent third party (Network Administrative Organisation).

The model also has to ensure that transfer from one lifecycle cell to another is as smooth as possible.

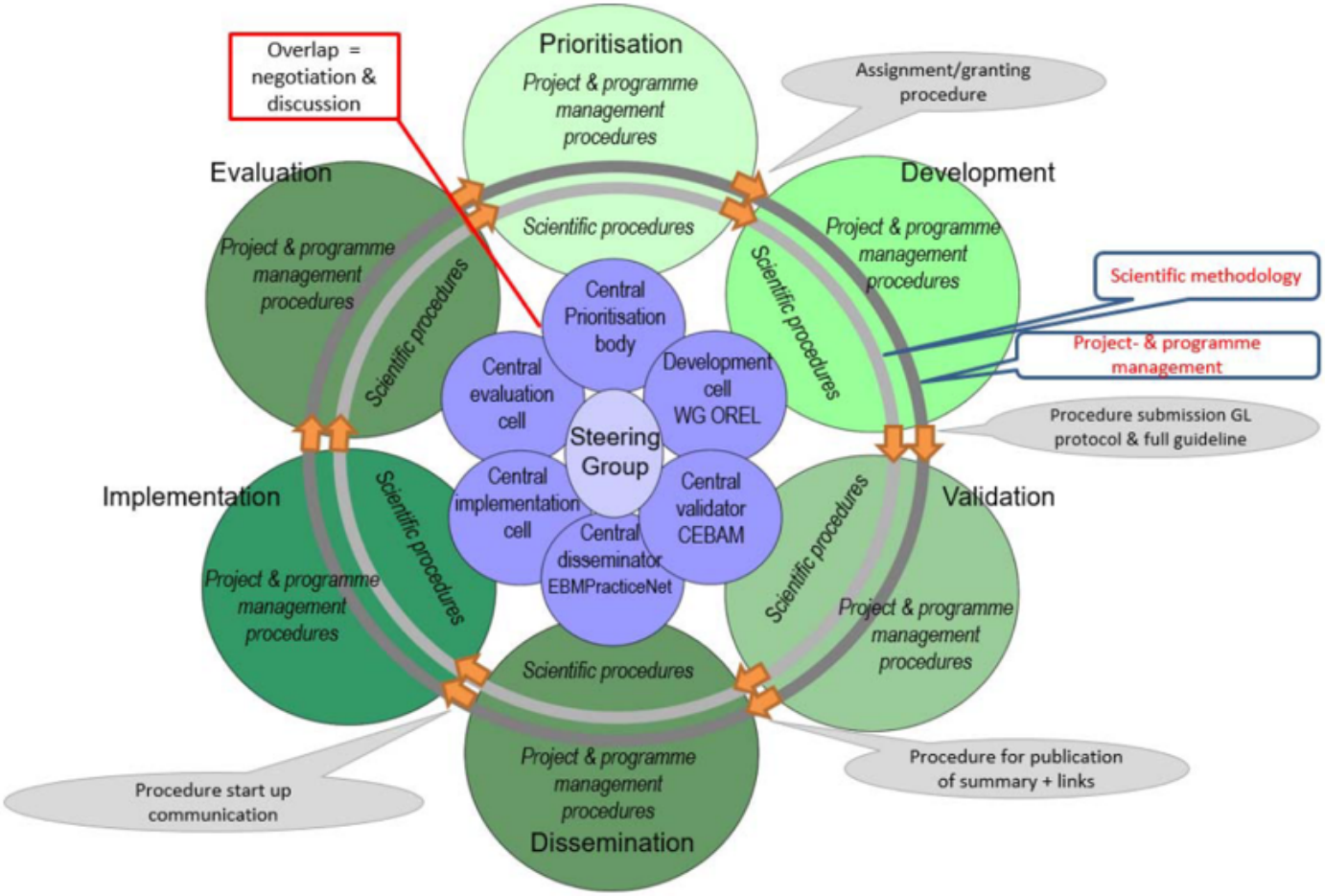

Figure 1: conceptual model of the EBP process flow

Aims

To describe the core elements and the operationalisation of the governance model for EBP in Belgium.

Methods

The EBP operationalisation process builds on the Belgian KCE EBP Plan report[3]. The operationalisation process of the EBP Plan[4] is guided by intensive stakeholder involvement (expert opinions, end-user consultation, consensus building), focusing on applicability, feasibility and acceptability of the proposed model. For this purpose, a large number of consecutive workshops were organised, followed by surveys and consultations to assess the degree of acceptance for every part of the model in the different stakeholder groups.

Discussion

The operationalisation process aims to develop a network organisation wherein every potential EBP stakeholder (e.g. developer, disseminator, end-user, patient) can find its place. A critical success factor in this process is building trust. A very important aspect of network organisations, which are an organisational answer to complex challenges, is the absence of hierarchical control. The strength of network organisations lies in the complementarity of the independent partners, to attain goals that single organisations can't achieve[5]. The way network organisations are created can be either organic, based on a free choice of the partners, or mandated. In mandated networks, an external entity orders the partners to collaborate. Mandated networks might however have challenges in building trust. Based on Provan & Kenis (2008) there are three ways of organizing network governance[6]: Shared Governance (all the network partners participate in the governance processes, implying extensive formal and informal communication), Lead Organization (one of the

partner organizations sets the strategic guidelines) and the Network Administrative Organization (NAO) (a separate independent organization takes on the task of network governance). Depending on the number of partners in the network, the level of trust between them, and goal consensus between partners, one of the models is more appropriate. Based on the characteristics of the Belgian landscape, the NAO governance approach was chosen to be the definite model.

The final Belgian EBP NAO-model is in fact a bipolar model (Figure 2). On the one side the Federal Steering Group, consisting of the funding policy bodies, the Ministerial Cabinet and two advisory knowledge partners, handles political issues and balances interests in the diverse field of institutions at a federal level. On the other hand an extensive monitoring and consultation mechanism (i.e. the Advisory Board and the Core Partner Meeting) is set up to collect, process and act on feedback from every kind of stakeholder. In between these two governance forces, an independent complementary organisation is created, that can focus on programmatic aims and operational actors, be it guideline developers, validators, disseminators and implementers, or healthcare workers and patients or their relatives. The decisional power of the NAO is mandated and their financial position is granted by the federal Steering Group. The NAO consists of a manager with strong competencies in network management and a compact executive cell. The main aim of the NAO is to steer, facilitate and support the processes in the EBP Network. The NAO takes into account all the feedback that is collected through multiple channels, processes this information, and advocates the stakeholders' preferences and needs.

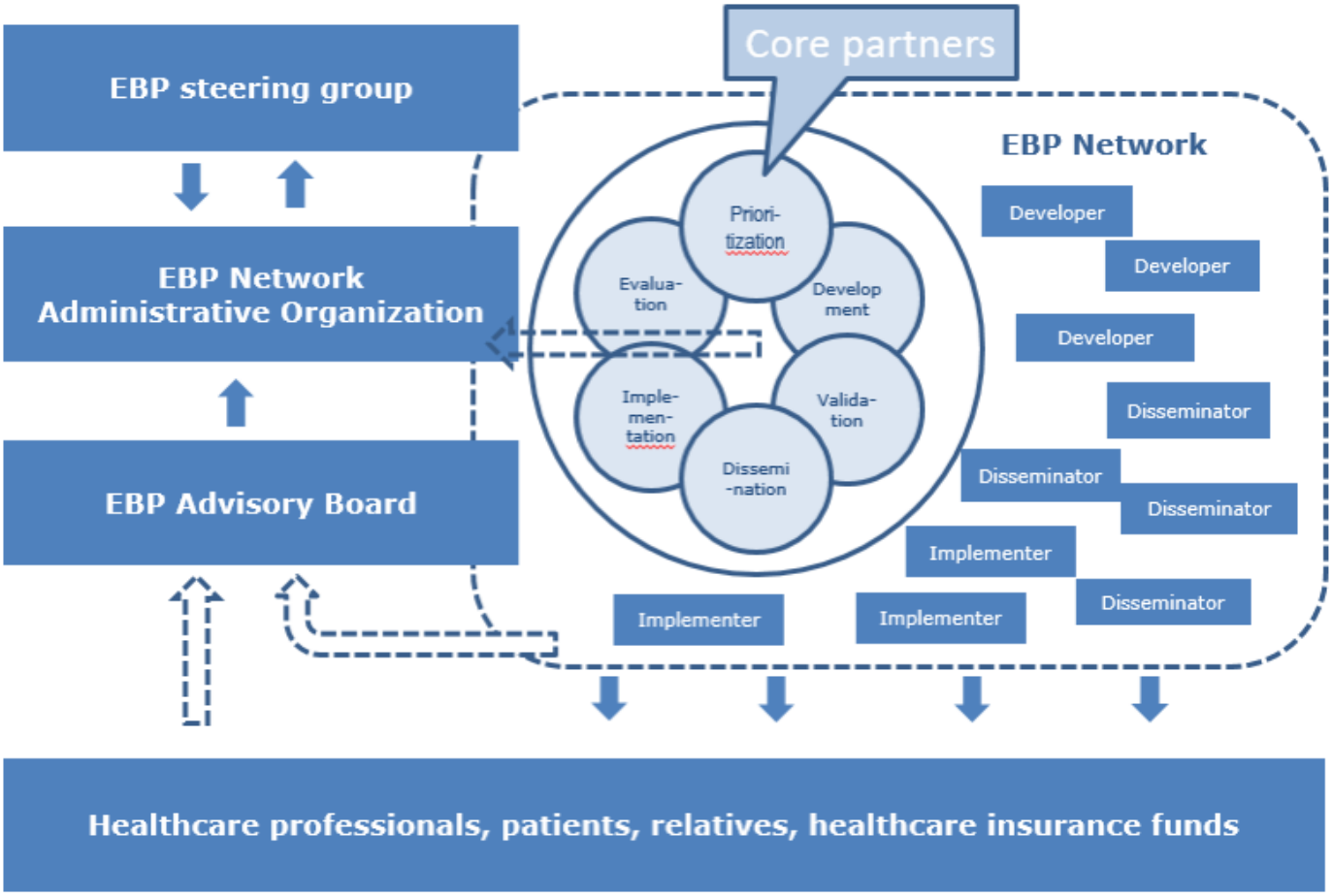

Figure 2: Belgian EBP Governance Model

Conclusion

As an in-between, communication, informing, negotiation and support are core activities of the NAO towards the two 'forces' in the model. As a consequence, the NAO must be a trusted party to take up this role. Giving the fact that organisational change can lead to resistance, building trust and becoming aware of the sensitivities and goals of every partner are important working points during the start-up phase. At present, consultation of and negotiation with stakeholders is in and advanced phase and the Belgian EBP Network hopes to be operational in the beginning of 2019.

Conflict of interest

No conflicts of interest were declared by the authors.

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Guideline adaptation in Poland – first step in evidence implementation

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Abstract

According to the report published by the National Chamber of physicians currently guideline development process in Poland is not coordinated and there is no document setting the standards for the process or methods of guideline production in Poland or institution assessing guideline quality on regular basis. We postulated that adaptation of good quality guidelines can improve quality of the guidelines available and serve as a first step in translating evidence into practice by making physians aware of the evidence.

To discuss methodological challeges and lessons learned during the project lead by the National Chamber of Physicians regarding guideline adaptation in Poland as a first step in evidence implementation.

National Chamber of Physicians set up a project which involved adaptation of the guidelines with the use of systematic approach suggested by the ADAPTE Collaboration. The guideline development team involved methodologist, clinical experts, specialists, primary care physician and patient representative. The process followed the framework established by ADAPTE Instrument.

The topic in one the groups was management of depression in primary care. Important lessons learned during the process of clinical question definition included the importance of cooperation between all involved groups due to differences in their point of views. Since several guidelines documents were identified one of the important lessons learned during defining inclusion and exclusion criteria was to include a minimal set of methodological criteria as the documents found varied in the methods used and description of the details of the process.

Well defined inclusion criteria, systematic use of available methods for the assessment of guideline quality and tools provided by the ADAPTE Toolkit refined to the needs of the guideline development groups faciliated the process of guideline adaptation in Poland as a first step in evidence implementation.

Keywords

Practice guidelines, guidelines adaptation, ADAPTE

Background

According to the report published by the National Chamber of physicians currently guideline development process in Poland is not coordinated, it is mainly initiated by medical societies and carried out either through interational collaboration/societies on the European level or with the use of their own resources[1]. Some of the societies adopt guidelines prepared on the European level, where Polish members actively participate, other societies produce only statements[2]. There is no document, which sets the standards for the process or methods of guideline production in Poland, such as the one published by the Institute of Medicine[3]. Currently there is no organisation or procedure to regularly assess the quality of the guidelines produced by the societies using widely accepted instruments, such as Appraisal of Guidelines for Research and Evaluation (AGREE II)[4]. Our previous work showed that the quality of the guidelines published in Poland is questionable[2,5]. The main problems were: editorial independence, i.e. lack of information regarding financial relationships and potential conflict of interest (lowest score in AGREEII), rigour of development

and stakeholder involement (patient representation)[2,5]. Our assessment was consistent with the assessment done previously for the guidelines published between 1980 and 2007[6]. Since good quality guidelines can be perceived as means to translate evidence into practice[7], we postulated that adaptation of good quality guidelines can improve quality of the guidelines available and serve as a first step in translating evidence into practice by making physians aware of the evidence.

Aims

To discuss methodological challeges and lessons learned during the project lead by the National Chamber of Physicians regarding guideline adaptation in Poland as a first step in evidence implementation.

Methods

National Chamber of Physicians set up a project which involved adaptation of the guidelines with the use of systematic approach suggested by the ADAPTE Collaboration[8]. The process followed the three phases (preparation, adaptation and finalisation) and in each of them steps identified by ADAPTE Collaboration. The preparation of the adaptation involved establishing multidsciplinary stakeholders groups, which involved methodologist, clinical experts, specialists, primary care physician and patient representative. The group declared their conflicts of interests and decided on the topic and scope of the guidelines. The adaptation phase involved defining clinical questions and inclusion /exclusion criteria for the guidelines. Several databases and websites with access to guidelines were searched for the guidelines published in English or Polish and available in electronic form. The quality of each document was assessed by the memebers of the team using AGREE II Instrument prepared in the form of online form[4]. Using tools provided by the ADAPTE toolkit the process also involved assessments of the guideline currency, summarising the content of the guidelines and building a map of clinical questions and guidelines recommendations[8]. And finally acceptability and applicability of each source recommendations was evaluated.

Results/Discussion

The topic in one the groups was management of depression in primary care. Important lessons learned during the process of clinical question definition included the importance of cooperation between all involved groups due to differences in their point of views – especially between specialists and primary care physicians and patient representative. Several guideline documents for depression were identified (39), however many of them were published more than 3 years before the adaptation process started, they provided recommendation for populations not specific to primary care or interventions not available in primary care or not available in Poland or did not contain sufficient information on the methods for guidelines. Important lesson learned during defining inclusion and exclusion criteria was to include a minimal set of methodological criteria as the documents found varied in the methods used and description of the details of the process.

Further three documents could not be used in the adaptation process as their use required financial resources not avaiable to the team. Since during the process the methodologist asked for the permission of the authors to use the content of the guideline in the adaptation, further two documents had to be excluded as no response for the request was received after several attempts. Finally five guideline documents were used in the process. After thorough discussions several recommendations were modified to reflect Polish healthcare model and treatment availability. Tools provided by ADAPTE Toolkit, which were reviewed and refined for the use by the guideline development team, and were applied in the self-archiving electronic form proved to faciliate the process of guideline adaptation. The adapted document was accepted by medical societies of primary care and psychiatry.

Conclusion

Well defined inclusion criteria, systematic use of available methods for the assessment of guideline quality and tools provided by the ADAPTE Toolkit refined to the needs of the guideline development groups faciliated the process of guideline adaptation in Poland as a first step in evidence implementation.

Conflict of interest

None

Acknowledgements

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Feasibility, appropriateness and meaningfulness analysis of the Sunfrail Tool to the European Portuguese population during cross-cultural adaptation process

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Abstract

Frailty is an age-related condition characterized by increased vulnerability to negative outcomes. To enable informed decision-making and implementation of individually tailored practices for frailty management, it is necessary to develop screening tools that cover different domains of individual functioning, reliably predict future adverse outcomes and are generalizable to healthcare settings other than primary care. The Sunfrail Tool (ST), an easy-to-use 9-item instrument, seems to meet all these requirements. The present study aimed to perform a cross-cultural adaptation of the ST for the European Portuguese population and to perform the feasibility, appropriateness and meaningfulness analysis of the ST Portuguese version. Methods: The process of cross-cultural adaptation was conducted in four-phases (translation, synthesis, back translation and creation of consensual version). To reinforce the content validity, the additional analysis on feasibility, appropriateness and meaningfulness were conducted with end-users (older adults, informal caregivers and health and social care professionals). Results: Frailty concept was considered suitable for European Portuguese population. A consensus version was reached by an expert panel after considering the results of two forward and two back-translations. This pre-final version was endorsed to the author as recommended by international guidelines. The content validation performed by healthcare professionals (n = 7), patients (n = 18) and informal caregivers (n = 3) showed that ST was found as moderately comprehensible and ambiguous. Five items required changes for cultural adaptation. Conclusions: The ST seems to be a promising instrument for the early identification of frailty to be used in the European Portuguese context to inform clinical decision on preventive responses. As a screening tool, there is a need to define cut-off points for different frailty levels detection on older people and to ensure effectiveness on pathways activation for frailty management. Guidelines supporting interview process are desirable.

Keywords

Frailty, cross-cultural adaptation, screening tool

Background

Frailty is an age-related condition characterized by increased vulnerability to negative physical, psychological and social outcomes. Recent systematic reviews have shown that frailty is malleable and its early diagnosis may help improve care for older adults[1,2]. However, to enable informed decision-making and implementation of personalized practices for frailty management, it is necessary to develop screening tools that cover different domains of individual functioning, reliably predict future adverse outcomes and are generalizable to healthcare settings other than primary care. The Sunfrail Tool (ST) seems to be such instrument. The ST is an easy-to-use screening tool that enables early identification of frailty and multimorbidity. The ST is a 9-item scale with two response options (yes/no). It measures three dimensions of frailty, including bio-physical, psychological-cognitive and socio-economic. It can be administrated by different

professionals, but also by informal carers within health, social and community settings. The use of the ST allows the generation of a first alert, leading to the activation of a referral for further medical assessment and diagnostic investigation or prompting a suitable response from the social and community sectors[3]. As a consequence, the opportunity to receive a comprehensive assessment enabling a timely response and individual tailored interventions may be created, contributing to the maintenance of functionality of older person for longer. The appropriate monitoring of health and timely responses are relevant to align health systems to the needs of older population and promote health care systems sustainability. So far, there is no Portuguese version of the ST. Since the alternatives existing in Portugal do not cover all the shortcomings pointed out by recent research, it was decided to culturally adapt and analyse feasibility and appropriateness of the ST with the end-user (old people, informal caregivers and health and social care professionals) involvement. In the next phase of this project we will validate the ST in the general population and clinical cohorts and we will disseminate it in different healthcare contexts.

Aims

To perform the cross-cultural adaptation of the ST for the European Portuguese population.

To perform the feasibility, appropriateness and meaningfulness analysis of the ST Portuguese version.

Methods

The process of cross-cultural adaptation was conducted with the authorization of the authors of the original version of the instrument and followed the recommendations of international guidelines[4]. The procedures taken included (i) translation of the ST by two bilingual translators; (ii) analysis of the translated contents by panel of experts to assure conceptual similarity between original and new versions, followed by the synthesis of the translated versions and building of a consensus translation; (iii) back translation of the consensus form by two independent translators who were not involved in the first phase; (iv) analysis of the back translation by the author of original version of the ST.

To perform the feasibility, appropriateness and meaningfulness analysis, and reinforce the content validity, the consensus version was administrated to end-users, including older adults, informal caregivers and health and social care professionals.

All end-users were asked to evaluate if the ST was practical and practicable in the context of health or social care. For this purpose, the end-users were invited to answer questions on comprehensibility and ambiguity of each ST item. Furthermore, health and social care professionals were asked whether the concept assessed by the ST was relevant for the clinical practice, and older persons were requested to provide information about meaning of the ST content. In the next phase of the project, a cross-sectional study aiming to assess construct validity and reliability of the ST will be performed.

Results/Discussion

The adaptation process, included conceptual and item equivalence analysis, was performed by a team with language proficiency, professional expertise in the geriatric health area and with experience on testing and measurement concepts. The expert panel, composed by researchers from healthcare and social sciences, considered that the concept of frailty was suitable for Portuguese population. Two forward and two back-translations were synthesized and compared by the same expert panel and a consensus was reached to produce pre-final version. The pre-final version was endorsed to the author to ensure that original meaning of the items was kept.

In order to reinforce content validation the assessment of ST items comprehensibility and ambiguity was considered. The instrument was tested in a sample of healthcare professionals (n = 7), patients (n = 18) and informal caregivers (n = 3). The translated version of the ST was found

by all end-users as moderately comprehensible and ambiguous. Five items required changes for cultural adaptation.

Conclusion

The ST seems to be a promising instrument for the early identification of frailty to be used in the European Portuguese context. It may inform clinical decision on preventive responses. However, there is a need to define cut-off points that allow discriminate between frail and non-frail older adults from general population and specific clinical population and ensure the correct pathways activation for successful frailty management. Another crucial point is to develop a guide to support the interview process and minimize the performance bias.

Conflict of interest

No conflict of interest has been declared by the author(s).

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Evidence-based practice educational program: a Portuguese experience with undergraduate nursing students

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Abstract

Several studies point out that Evidence Based Practice promotes healthcare quality, reduces healthcare costs and improves the patients' experience. However, the Evidence Based Practice implementation and sustainment in clinical practice remains a challenge mainly due to several gaps between research and practice. Some authors and organizations have highlighted the important role that education could have to reduce that gaps. Therefore, it is mandatory that Evidence Based Practice content should be introduced in undergraduate nursing curricula to promote an Evidence Based Practice culture on future nurses.

To develop an Evidence Based Practice Educational Intervention designed for undergraduate nursing students and to explore the opinion of students exposed to the intervention.

An Evidence Based Practice Educational Intervention was developed for undergraduate nursing students according to the Guideline for Reporting Evidence-based practice Educational interventions and Teaching checklist by 2 researchers with experience in science synthesis. The draft of the intervention was sent to experts for opinion. Their opinions were analysed and the suggestions were incorporated. Then, the intervention was applied in fourth-year nursing undergraduate students and, afterwards, the feedback of participants was requested through an online questionnaire.

The program was designed for 17 weeks with a total of 18 hours (12 hours of classroom lessons plus 6 hours of mentorship). Eight experts analysed the draft and provided their opinion. In overall, the experts considered that the program is well designed, but they recommended some adjustments regarding the objectives and the target population. After the intervention implementation, 16 participants provided feedback on the program. Their feedback was positive except for the duration of the program.

According to the experts' opinion and students' feedback, the Evidence Based Practice educational program seems to be an appropriate educational program to embed Evidence Based Practice in the undergraduate nursing curricula.

Keywords

Evidence-Based Practice, Education, Nursing Students

Background

It is recognized that Evidence Based Practice (EBP) use promotes the high-value health care, improves the patient experience and health outcomes, and reduces health care costs[1]. Consequently several organizations have been strongly recommended the EBP use in clinical settings[2-4]. However, due to gaps between research and practice, EBP implementation and sustainment remains a challenge. Some authors/organizations have highlighted the important role that education could have to reduce that gaps[5-6]. Therefore, it is mandatory that EBP content should be introduced in undergraduate nursing curricula to promote an EBP culture in future nurses.

Aims

To develop an EBP Educational Intervention designed for undergraduate nursing students. To explore the opinion of students who underwent the intervention.

Methods

An EBP Educational Intervention was developed, by two science synthesis researchers, for undergraduate nursing students according to the Guideline for Reporting Evidence-based practice Educational interventions and Teaching (GREET) checklist[7]. The draft was sent for opinion to experts of different backgrounds (nursing, psychology, education and physiology). Their opinion was evaluated and the suggestions were incorporated into the intervention. Between February and June 2018, the intervention was applied to Portugese fourth-year undergraduate nursing students and the feedback of participants was requested through an online questionnaire.

Results/Discussion

Eight experts analysed the EBP Educational Program proposal. In overall, they considered that the program is well designed, but they recommended some adjustments regarding the objectives as well as the addition of information regarding the target population. Moreover, due to specific learners' needs and time constraints it was not possible to include the objective of critical analysis. Therefore, the program was limited in terms of promoting critical appraisal skills. Table 1 shows the final program. Sixteen undergraduate nursing students, who underwent the intervention, answered to an online opinion questionnaire. Their feedback was very positive, but they recommended that the program should include more hours of mentorship.

Table 1: EBP Educational Intervention designed according to the GREET checklist[7]

1. INTERVENTION	EBP Educational Program
2. THEORY	JBI Model of Evidence-based Healthcare[8]
3. LEARNING OBJECTIVES	Main objective: To enhance the EBP use.
	Specific objectives:
	a) To know about models of thinking about EBP, especially the JBI Model of Evidence-based Healthcare;
	b) To develop a focused review question;
	c) To identify the most appropriate study design to answer the question;
	d) To show knowledge regarding database search;
	e) To analyze the search results to answer a review question;
	f) To know software to develop systematic reviews;
	g) To identify important aspects that determine the relevance and validity of a particular study.

4. EBP CONTENT	Session 1 – Introduction to Evidence-based Health Care: models of thinking and action; International collaborations for EBP. Cochrane collaboration and JBI; Introduction to systematic reviews; Types of systematic reviews and types of primary studies; Review question development.
	Session 2 – Searching for Studies: Databases (concept and organization); Important concepts (silence, noise, sensibility, specificity); Types of Resources (databases/platforms/trials registers); Concept map; Search with index terms versus search with keywords; Fields where search, truncation and wildcard symbols, and operators Booleans.
	Session 3 – Study selection process; Data extraction and synthesis; Software to synthesis (RevMan; JBI-SUMARI; Covidence; Rayyan).
	Session 4: Definition of a review question of interest to students and important in the context of their Clinical Practice/ Fieldwork.
	Session 5: Definition of a search strategy to answer the review question previously defined.
	Session 6: Clarification and guidance of the study selection process, the data extraction and the synthesis of studies.
5. MATERIALS	Powerpoints, Papers of reference, Worksheets
6. EDUCATIONAL STRATEGIES	Lectures with a practical component and mentoring
7. INCENTIVES	None
8. INSTRUCTORS	Daniela Cardoso (CV: https://orcid.org/0000-0002-1425-885X)
	João Apóstolo (CV: https://orcid.org/0000-0002-3050-4264)
9. DELIVERY	Sessions 1-3: Face-to-face (groups of 20-30 students); expositive method with practice tasks.
	Sessions 4-6: Face-to-face (groups of 2-3 students); active method–mentoring.
10. ENVIRONMENT	Classrooms and small meeting rooms
11. TARGET POPULATION	Fourth-year nursing undergraduate students
12. SCHEDULE	6 sessions during 17 weeks
	Sessions 1-3: total of 12 hours (4 hours by session) during the first 7 weeks.
	Sessions 4-6: total of 6 hours (2 hours by session) during the last 10 weeks.
13. Amount of time learners spent in face to face contact with instructors and time spent in self-directed learning activities	The student has face-to-face contact with instructors for the entire session period. It is expected that most students spend about 10 hours to prepare each mentoring session (sessions 4-6).

Conclusion

According to the experts' and students' feedback, the EBP educational program seems to be an appropriate educational intervention to embed EBP in the undergraduate nursing curricula.

Conflict of interest

None

Acknowledgements

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Implementing evidence in local and global contexts

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Abstract

The notion of context, whilst underpinning everything that we do in healthcare remains something that is difficult to define, however it determines the success or failure of everything that we do, particularly in the global healthcare arena. Whether we consider context as an objective or subjective construct, it should influence every evidence-based decision we make as healthcare professionals. Methods developed as part of the implementation science movement, including realist synthesis and 'mindlines', emphasise the important of addressing social, cultural and environmental context specific influences when considering the implementation of complex interventions, particularly in diverse populations. The Joanna Briggs Institute evidence-based clinical fellowship programme empowers practitioners, through education, to implement evidence into their own practice areas, taking into account the key variables that impact on successful adoption.

Keywords

Context, Evidence implementation, Evidence-Based Healthcare, Implementation science, Joanna Briggs Institute

Background

Explicit knowledge, conventionally delivered like pizza (neat boxes with toppings of concepts, theories, best practices and war stories), is consumed by the brain but not metabolized into action. The learning we call intuition, know-how and common sense gets into the blood stream through osmosis. It is shaped by social context (p.146)[1].

The underlying principles of Evidence based Medicine (EBM) and subsequently the terms Evidence-Based Practice (EBP) and Evidence-based Healthcare (EBHC), familiar today to all healthcare professionals, developed in the Department of Clinical Epidemiology and Biostatistics at McMaster University in Canada in the 1980's, where a group of practitioners wanted to find new ways of locating, appraising and using research and to develop systematic and scientific principles to help clinicians make decisions based on the best information available[2]. An Internal Medicine Residency Program was initiated and implemented within the Department of Medicine to teach the skills and principles associated with EBM, a term which first appeared in print in 1992[2]. This movement focused mainly on evidence based individual decision making[2,3], a process that involved educating physicians to integrate research and evidence into their individual decisions about individual patients through defining a clear question, developing a systematic search strategy and finally applying this to the individual scenario.

Since this time the EBHC movement has continued to expand and develop, from the initial focus on evidence based individual decision making, to a far wider field involving all healthcare professionals and incorporating evidence-based guidelines[3], quality improvement, performance measurement and macro influenced policies. Indeed a whole new area of scientific study has evolved under the umbrella term of implementation science, with journals that focus specifically on the scientific study of methods which promote the uptake of research findings into everyday healthcare activities. Underpinning this science is the importance of context, understanding why research can sometimes works with some populations but not others.

Aim

To highlight the importance of context when considering evidence implementation in the global healthcare arena and consider methods available that incorporate the influence of contextual factors.

Discussion

The World Health Organisation (WHO) (2013)[4] argue that implementation issues arise when real world contextual factors are overlooked, healthcare decision-making needs to be both context specific and evidence informed to make theory a reality. The WHO note that our failure to effectively implement interventions comes at a high price, with millions continuing to die each year from diseases that are preventable or treatable with existing interventions[4].

But what exactly do we mean by context? Introducing a selection of essays published by the Health Foundation[5], Bamber notes that whilst context has been recognised for some time by social scientists there has been little consideration of the impact of context on practice. In the first of these essays Bate[5] mandates that context is everything, whilst also noting that context is a massively understudied and misunderstood concept, with no explicit or well articulated theory. He uses a quote from Teun van Dijk[6] to illustrate the point that:

'…the notion of context as it is used in the social sciences is not a strictly theoretical concept, but rather a more or less fuzzy notion denoting a situational, historical, geographical, social or cultural environment of a phenomenon being studied.'

The Health Foundation (2014)[5], provide the analogy that if we consider an intervention as a 'seed' then context is the 'soil' within which the seed will either flourish or die. To understand this context, they suggest researchers and practitioners need to consider the wide range of both internal and external influences that play a part in implementation, from resources and professional leadership to staff skills, ownership and the involvement of patients and the public. Realist synthesis, for example, a method introduced by Pawson et al (2004)[7] provides an approach to reviewing evidence on complex social interventions which explains why, or why not research works in particular contexts or settings. The process involves stakeholders, modification of interventions and change through learning, testing and refining theory asking, 'what works, for whom, in what circumstances, in what respects and how?' In 2004 Gabbay and le May[8], examining the complexity of the context in which general practitioners in the UK made clinical decisions suggested that the time had come to rethink how we move 'from the linear rationalism of guidelines to the complex wisdom of good practice'. A recent update to this article[9], argues that whilst mindlines, knowledge in practice, knowledge transformation and many other methods all play their part in developing good clinical care, then perhaps the time has come to embrace these different methods and 'use education, training and facilitation' to ensure that they flourish. The Joanna Briggs Institute evidence-based clinical fellowship programme is doing exactly this to educate clinical practitioners and improve global healthcare.

Conclusion

This presentation and short communication emphasises the importance of considering context in all elements of evidence-based decision-making, highlighting some approaches to implementation that take elements of context into account.

Conflict of interest

None declared

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Conducting initial telephone consultations in primary care: A Scoping Review

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Abstract

Telephone consultations are increasingly used in primary care to deliver healthcare services to patients. However, there has been no review produced which identifies and maps the elements of the components, skills and training required to deliver telephone consultations in primary care. This review maps the evidence and can be used to inform clinical service and staff development.

A scoping review was conducted using JBI methodology. Inclusion criteria for this review included: Participants – any study focusing on any qualified healthcare practitioner working within primary care services; Concept – was any initial telephone consultation within primary care; Context – was primary care within developed nations defined as having very high human development. A three step search strategy was adopted to include published and unpublished literature in English from 2002 to 2017.

The search identified 3378 sources of literature. Two independent reviewers screened titles and abstracts then full text against the inclusion criteria which resulted in 18 articles included in this scoping review. Data was extracted by two independent reviewers relevant to the review question: components, skills and training in telephone consultations.

The 18 articles involved five countries, 144 healthcare professionals and between 55-1506 patients. The key attributes for telephone consultations (components, skills and training) were synthesised into tabular display and provide guidance on the main elements required for providing this service in primary care.

Keywords

Telephone consultation, telephone assessment, primary care,

Background

Traditionally, patients' access primary care services face-to-face, but increasingly telephones are being used as an initial approach; indeed, the telephone has been considered a routine mode of accessing healthcare services for more than two decades[1]. The reasons for telephone use in primary care services in recent years include an increase in demand for services which places pressure on limited resources[2], an increase in demand for same-day appointments[2], and the need to manage long waiting lists[3,4]. Initial telephone consultations (sometimes referred to as assessments) go further than triaging patients; a full clinical assessment is conducted over the telephone by a healthcare professional and decision making regarding patient management is carried out[5]. The result may include signposting to other services, urgently accessing emergency services if a serious condition (e.g. fracture) is suspected, provision of a brief or longer intervention by telephone, or arranging further face-to-face intervention. Initial telephone consultations are the focus of this review as they are being increasingly used in primary care, largely due to supply/demand issues, and are being used by an increasing variety of professional groups, such as allied health professionals[4] and psychologists[6], who do not traditionally receive training in how to conduct these at undergraduate level. It is therefore appropriate to map the current evidence to inform future practice. This review summarized the current literature and provides clinicians'

with an overview of the components, skills and training required for conducting initial telephone consultations in primary care.

Aims

The aim of this scoping review was to examine the characteristics of telephone initial consultations conducted in primary care settings and map the evidence on components, skills and training recommended for initial telephone consultations in primary care guided by the following questions:

1. What components are or should be included in primary care initial telephone consultations
2. What skills are required for primary care practitioners to deliver initial telephone consultations
3. What training is recommended for primary care practitioners to deliver effective and acceptable initial telephone consultations

Methods

This review was guided by an a-priori protocol[7] incorporating Joanna Briggs Institute (JBI) scoping review methodology[8].The inclusion criteria for this review were: Participants – any study focusing on any qualified healthcare practitioner working within primary care services; Concept – was any initial telephone consultation within primary care; Context – was primary care within developed nations defined as having very high human development[9].

To map the evidence the authors included published and unpublished literature that covered primary research (quantitative, qualitative), systematic reviews, reports and expert opinion from 2002 to 2017.

A three step search strategy was adopted in this review. Stage one involved an initial search of Medline and CINAHL using key words. Following analysis of the text used in the titles, abstracts and index terms the search strategy was developed for Stage two. The second search was then undertaken across seven databases (CINAHL, Medline, Cochrane Library for controlled trials and systematic reviews, EMBASE, Web of Knowledge, ERIC and AMED) and simplified unpublished searches included Open Grey, Open DOAR, Ethos, Google Scholar, Government Department of Health websites (nine countries) and professional bodies of health disciplines globally. Stage three involved searching reference lists of retrieved articles to identify additional studies.

All retrieved articles were exported to Refworks and duplicates were removed at this stage. Two reviewers independently assessed the titles and abstracts of the retrieved articles against the inclusion criteria for relevance. Studies meeting the inclusion criteria had full text retrieved for further analysis by two independent reviewers. Full text articles that did not meet the inclusion criteria were excluded at this stage and the reason for exclusion recorded. All disagreements were resolved by discussion with a third reviewer.

Data relevant to the review question were extracted by two independent reviewers and included specific details about health professionals conducting telephone consultations, patient groups, sample size, primary care setting, outcomes and findings relevant to components, skills and training for initial telephone consultations.

Results/Discussion

The searches retrieved 3378 articles and 3,096 articles remained after duplicates were removed. There were 99 full text articles reviewed and subsequently 18 articles included in the final scoping review synthesis.

The 18 articles involved 144 healthcare practitioners and 55-1506 patients across 5 countries (UK, USA, Netherlands, Australia and Denmark) in primary care settings. The extracted data were synthesised into Table 1 forming six components, seven skills and seven training requirements for initial telephone consultations.

Table 1: Components, skills and training for telephone assessments

COMPONENTS	SKILLS	TRAINING
Beginning Assessment	Communication skills	Specific communication &listening skill training
Timing	Listening skills	Training standards
Documentation	Empathy & rapport	Observation period
Assessment Methods	Clinical experience	Training package
Subsequent Actions Following Call	Evidence based practice	Training duration
Legal Requirements	Enhanced skill-set & multi-tasking	Competency assessment
	Legal skills	Under-graduate & post-graduate curriculum & training

Conclusion

The aim of this scoping review was to gather information that sheds light on telephone consultations within the primary care sector. There are very few quantitative or qualitative studies in relation to this topic, with most of the information being gathered from text and opinion articles.

The findings from this review have been used to inform, alongside primary qualitative research with patients and physiotherapists, the development of a training package for initial telephone consultations in musculoskeletal out-patients.

Conflict of interest

The authors declare no conflicts of interest in this review.

Acknowledgements

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Incorporating Qualitative Evidence in Clinical Practice Guidelines: A Scottish Perspective

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Abstract
This article provides an overview of an approach to incorporating a range of evidence, including qualitative research findings, that the authors piloted when developing a clinical guideline on epilepsies in children and young people. We describe methods used for incorporating literature types not usually included in Scottish Intercollegiate Guidlines Network (SIGN) guidelines, including critical appraisal, and establishing dependability and credibility of qualitative findings. We highlight limitations encountered and make suggestions for future work.

Keywords
Guideline development, Qualitative evidence, Mixed methods

Conflicts of Interest
The authors have no conflicts of interest to declare

Acknowledgements
Guideline Development Team: Celia Brand, Chris Jeans, Aileen McCafferty, Alix Rolfe

Information Scientist: Carolyn Sleith

Background
Guidelines have traditionally relied on evidence form quantitative studies to make recommendations for clinical practice. However, the use of qualitative research as an evidence base for generating recommendations has increased in recent years[1]. This is due to a range of factors including: guideline developers policies paying closer attention to patients' and carers' perspectives[1]; increasing numbers of guidelines on chronic conditions, where patients' needs are important[1]; and decision makers increasingly wanting evidence relating to acceptability and feasibility of interventions in addition to traditional measures of effectiveness[2].

Lewin and Glenton suggested that the growing use of qualitative evidence to support decision making heralds the start of "a new era for qualitative research"[2]; this view is supported by the use of qualitative evidence by several key guideline development organisations including the World Health Organization (WHO), National Institute of Health and Care Excellence (UK), and the Swedish Public Health Institute[2].

The Scottish Intercollegiate Guidelines Network (SIGN) has been producing evidence-based clinical guidelines for use in the Scottish National Health Service since 1993[3]. SIGN is currently developing a guideline on epilepsies in children and young people. During systematic literature searching it became clear that two of the guideline's key questions could not be addressed by quantitative evidence alone. We therefore piloted an approach to incorporating a range of evidence, including qualitative, in the development of recommendations for these key questions. The approach was

informed by that taken by Coombs et al4 but adapted to our specific circumstances. Here we provide an overview of this approach and suggestions for future developments.

Aims

To pilot the integration of a range of evidence sources, including qualitative research, in the development of a SIGN guideline on epilepsies in children and young people[5].

Approach taken

Three core principles underpin SIGN's methodology: (i) guidelines are developed by multidisciplinary, nationally representative groups; (ii) literature is systematically reviewed and critically appraised, and (iii) recommendations are explicitly linked to the supporting evidence[3]. At the time of writing, SIGN key questions were generally formatted as a quantitative PICO, and literature searches framed to identify quantitative evidence[7].

In keeping with SIGN methodology the guideline development group, which comprised healthcare professionals, lay representatives and academics, identified several key questions to be addressed. Two questions in particular were challenging to answer using quantitative evidence: (i) the process by which transition from paediatric to adult services should take place, and (ii) when, where and how discussions about sudden death in epilepsy (SUDEP) should take place.

For the first key question (transition), systematic literature searching identified a high quality systematic review on transition from paediatric to adult services[8], in a range of chronic conditions but not epilepsy-specific. The search also identified a range of other literature sources including scoping and mixed methods reviews, cross-sectional studies and a largely descriptive article. These would not traditionally be incorporated in a SIGN guideline; however, they contained evidence relevant to the key question and in the absence of epilepsy-specific evidence, the guideline development group felt it was important to include them. We applied Joanna Briggs Institute (JBI) critical appraisal tools to the cross-sectional and descriptive studies[9]. We however found a lack of critical appraisal tools specifically for scoping and mixed-methods reviews and were unable to formally grade their quality. Due to the inclusion of a variety of evidence sources it was possible to make conditional recommendations and good practice points relating to transition for children and young people with epilepsy, which would not have been possible if only high-quality quantitative evidence was eligible.

For the second key question (SUDEP), the systematic literature search identified mostly qualitative studies on patients', family members', and healthcare professionals' perspectives of when, where and how discussion should take place. Following initial review of the literature, the guideline development group modified the PICO to a qualitative PICo format[10] and conducted a second search of the literature in order to be comprehensive. A qualitative synthesis was initiated[11] (ongoing at the time of writing), and a further two qualitative and one mixed method studies were identified as relevant to the guideline but outwith the scope of the qualitative synthesis. These three studies were critically appraised using JBI tools[9] and the first step of the JBI ConQual approach[12] was used to establish dependability and credibility of these individual studies. With this approach it was possible to make a conditional recommendation regarding SUDEP discussions at draft guideline stage; this may however be modified once the qualitative synthesis has been fully conducted.

Discussion

In this pilot we were able to integrate a range of evidence sources, including qualitative evidence, in the development of a clinical guideline on epilepsies in children and young people. Our approach to critical appraisal and grading the evidence was informed by JBI systematic review methodology; we are confident that this brought rigour to the guideline development process. However, our approach is not without limitations. Inclusion of qualitative evidence, in the absence of existing qualitative systematic reviews, is a substantial undertaking for a guideline development group. Adequate time, resources and expertise needs to be allocated for the conduct of novel qualitative syntheses

alongside the guideline development process. During development of this guideline a series of articles on the GRADE CerQual (Confidence in the Evidence from Reviews of Qualitative Research) approach was published[12], and CerQual is increasingly being used by guideline developers such as the WHO. GRADE CerQual will be applied in our ongoing qualitative synthesis on SUDEP discussion, which will in turn be incorporated in the final guideline. Finally, we were unable to apply a structured approach to critical appraisal or determining confidence in the findings of someother types of evidence (scoping reviews, mixed methods reviews).

Conclusions

We believe the inclusion of a range of evidence sources has enhanced the guideline development process discussed here. Without this evidence it would be difficult to make recommendations for clinical practice on two important aspects of epilepsy in children and young people; with this evidence the perspectives of patients', family members' and healthcare professionals have informed the guideline (in addition to the perspectives of lay members of the guideline development group). There are still some limitations to overcome in order to fully integrate this range of evidence in guideline development methodology, and of course, the extent to which the recommendations will be easily interpreted and implemented by the clinical community is as yet unknown.

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Men's perceptions of the impact of the physical consequences of a radical prostatectomy on their quality of life: a qualitative systematic review

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Abstract

Prostate cancer is the most common male cancer and second most common cause of cancer death in men in the Western world. Compared to other prostate cancer treatments trials report worse urinary incontinence and sexual function and similar bowel function among men who underwent radicalized prostatectomy. A qualitative systematic review was carried out to identify men's perceptions of the impact of the physical consequences of a radicalized prostatectomy on their quality of life. The review included men of all ages and nationalities who had radicalized prostatectomy as treatment for all stages of prostate cancer. Inclusion criteria were studies that investigated (i) the physical consequences of radicalized prostatectomy and its impact on quality of life and life experience as identified by the men and (ii) the psychosocial implications of the identified physical consequences of radicalized prostatectomy as identified by the men. A search across six databases aimed to find English language studies (November 2017). Critical appraisal was conducted using the Joanna Briggs Institute critical appraisal instrument for qualitative studies. Nineteen qualitative studies were included and the findings are presented as five aggregated qualitative syntheses.

Urinary incontinence and erectile dysfunction are significant side-effects of radicalized prostatectomy which have a negative impact on men's quality of life for which they feel ill prepared. Men are often reluctant to discuss their emotions and therefore the need to create suitable opportunities for them to express their feelings in conjunction with appropriate evidence based emotional support and advice is pivotal to the development of support interventions. This review highlights the importance of men being made aware of the impact the physical effects that RP can have on their quality of life and that those who select radicalized prostatectomy as a treatment strategy must be provided with appropriate information and support from healthcare professionals.

Keywords

Continence, Erectile dysfunction; Experience, Quality of life; Radical prostatectomy; Sexuality

Background

Prostate cancer is the most common male cancer and second most common cause of cancer death in men in the Western world[1]. The quality of life of men with prostate cancer can be negatively affected by the various treatments available to them[2]. The three most common contemporary methods of treatment are active monitoring, radical radiotherapy with hormone treatment and RP[3, 4].Radical Prostatectomy predominates as the primary treatment approach for prostate cancer in a number of countries including Australia and North America[5, 6], and involves the complete removal of the prostate, seminal vesicles and surrounding tissues[7]. Post-operative complications commonly occur and the literature reports issues concerning bladder, bowel and sexual dysfunction[8]. These physical consequences of surgery are intrinsically connected to psychosocial implications for the patient and are associated with significantly reduced quality of life or life experience[7, 9]. Treatment such as a RP, which has negative physical and psychosocial consequences, which can potentially

impact upon men's future quality of life means it is increasingly becoming an important topic. Nurses provide a vital role in ensuring that men are adequately prepared for a RP and the potential post-operative quality of life implications[10]. Without an in-depth knowledge and understanding of men's experience post RP there is a risk that health professionals may be unable to provide the comprehensive support and information that is vital to men post-operatively. An improved understanding of the men's perspective of these physical consequences could potentially enhance the value and impact of support provided.We conducted a systematic review to explore the repercussions on lifestyle and associated psychosocial impact that the physical consequences outlined have on men, following a RP. By identifying and exploring issues that affect men's quality of life, an opportunity is created to talk about problems, discuss information and ultimately improve the men's ongoing life experience

Aims

The objective of this review was to identify men's perceptions of the impact of the physical consequences of a RP on their quality of life.

Methods

The review was conducted using JBI methods and including grading the final synthesized findings according to the ConQual approach for establishing confidence in the output of qualitative research synthesis and presented in a Summary of Findings table.

Results/Discussion

There were 7,219 citations identified as being potentially relevant to the review. After the duplicates had been removed the titles and abstracts of 4,852 records were reviewed. Based on the study eligibility criteria. 4,807 citations deemed not relevant. Forty five full text articles were retrieved and reviewed and those that met the inclusion criteria went forward to critical appraisal. A total of 19 qualitative studies that scored between 5 and 10 against the ten critical appraisal questions were included in the review. The 19 included papers yielded 239 findings that led to 20 categories and five syntheses statements. Synthesis one (ConQual: Low) demonstrates that urinary incontinence (UI) is a significant problem for which men feel ill prepared, particularly at the point of catheter removal when the extent of the incontinence was a shock. For many this caused feelings of powerlessness and negatively impacted on social life and life experience. This review found that erectile dysfunction (ED) has a significant impact on men's life experience post RP as shown in synthesis 2 (Conqual Low), affecting sexuality and masculinity. It was shown through synthesis 3 (ConQual:Moderate) that despite the often negative implications of UI and ED post RP, men recognized the need for adaptation and in some cases had adjusted their lifestyle accordingly. Acceptance of penile length shortening, loss of sexual intimacy, ED and UI after RP was demonstrated in a number of ways and included reconciliation, adaptation and compensation for being rid of the cancer. Some men felt that the change in sexual function as a result of ED was natural and would have occurred anyway with their advancing age and that it was not necessarily related to the cancer. The impact of RP on men's relationships with their partners post RP was the essence of synthesis four (Conqual:Low). This synthesis highlighted both the negative impact ED could have on relationships with a reluctance to communicate thoughts and worries to partners, but also the importance of identifying different ways of establishing a sexual relationship that could still be enjoyable despite ED. Synthesis five (ConQual: Low) identified that support was perceived by the men to be essential to enable them to deal with the physical impact of RP on their quality of life.

Conclusion

Overall this systematic review has demonstrated that the post-operative complications of UI and ED that occur after a RP are significant side-effects of RP which have a negative impact on men's quality of life for which they feel ill prepared. This review also showed that both physical and psychosocial support is essential. Men are often reluctant to discuss their emotions and

therefore the need to create suitable opportunities for them to express their feelings in conjunction with appropriate evidence based emotional support and advice is pivotal to the development of support interventions. In some cases the men were able to demonstrate successful adaptation and become reconciled to a new life experience. Without an in depth understanding of the physical consequences of RP and the impact this can have both physically and psychologically, HPs are limited in their ability to provide the high level of individualized support these men require. A recent study3 that reported 10 year outcomes following treatment for prostate cancer concluded that 'men with newly diagnosed, localized prostate cancer need to consider the critical trade-off between the short-term and long-term effects of radical treatments on urinary, bowel, and sexual function and the higher risks of disease progression with active monitoring, as well as the effects of each of these options on quality of life'[3]. (p.1423). This review highlights the importance of men being made aware of the impact the physical effects that RP can have on their quality of life and that those who select RP as a treatment strategy must be provided with appropriate information and support from HCPs.

Conflict of interest, Acknowledgements

None

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Smart Screening of prostate cancer: A new update

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Abstract

Considering debates on screening of prostate cancer and roll of prostatic specific antigen (PSA) as screening test.

We aimed to identify the quality of evidences for prostate cancer screening in the current guidelines and summarizing the common approaches.

In current short review of the literature, we searched for evidence based prostate cancer screening guidelines on Pubmed and Google scholar. The quality of the mentioned evidences for the screening was categorized.

Six guidelines were selected, and the core of recommendations regarding screening prostate cancer and the background evidences were also selected.

Although the background evidences were poor to moderate but the grade of the recommendations in retrieved guidelines was somewhat different from weak to strong. It seems an individualized and smart screening can improve the quality of care.

Keywords

Screening, prostate cancer, guidelines, PSA, decision making

Background

Lifetime risk of being diagnosed with prostate cancer is 16% but risk of dying of prostate cancer is only 2.9 %[1]. Early stage is usually asymptomatic and in most cases detected by serum PSA (prostate specific antigen) or abnormal DRE or both. There is some concern regarding use of PSA as a screening test. At the beginning PSA was introduced as a biomarker for follow up of patients who were diagnosed and treated as prostate cancer patients. But very soon the application of PSA changed to a screening test[2]. Although PSA is known as the only cost effective way for early diagnosis of the prostate cancer but there is no well defined cut-point between normal and abnormal PSA. Even PSA at the level of 2.0ng/ml may miss some prostate cancers[3]. High Positive predictive value for PSA leads to unnecessary biopsies with related adverse events. Furthermore nearly 75% of cancers detected in the grey zone (PSA 4-10) are organ confined; potentially curable but this can cause over-diagnosis and over-treatment. For the reasons above prostate-specific antigen (PSA)–based screening for prostate cancer remains controversial, and there are many challenging issues on balancing between potential benefits and potential harm. This review is designed to show the guidelines recommendations for PSA screening.

Method

In this short review we defined a search strategy for Pubmed and Google scholar as following: (((cancer of prostate (MeSH Terms)) AND guideline (Title)) OR recommendation (Title)) AND screening (Title/Abstract). Then all recommendations for prostate cancer screening and level of the background evidenced were retrieved.

Results /Discussion

We selected 6 different guidelines worldwide based on regions. The American Urological Association (AUA) (2013)[4]recommended against screening men younger than 40 and for average-risk men ages 40 to 54, men older than 70, or men with a life expectancy of less than 10 to 15 years. US Preventing Task Force(USPSTF) updated the recommendations in 2018 and individualized decision-making about prostate cancer screening for men ages 55 to 69[5] and not recommended for men 70 years and older. The United Kingdom National Screening Committee did not recommend screening for prostate cancer[6]. The Australian Cancer Council disagreed with population-based screening and recommends a patient-centered, individualized, decision making[7]. It was the same for The European Society for Medical Oncology (ESMO)[8]. The Canadian Task Force on Preventive Health Care had strong recommendations against screening for prostate cancer with PSA for men younger than 55 or older than 69, and recommended against screening with PSA for men ages 55 to 69 with weak grade of the recommendation[9].

Although the guidelines had sometime different recommendations but most of the recommendations were based on 6 big RCTs for Prostate cancer screening[10–15]. BMJ[3] recently published a systematic review and meta-analysis and showed that, prostate cancer screening using a PSA, leads to a small reduction in disease-specific mortality over 10 years, but it is no effect on overall mortality. PSA screening had very small or no effect on prostate cancer–specific mortality (IRR, 0.96; 95% CI, 0.85 - 1.08 ;) in five low-quality evidence studies. In addition it doesn't have any effect (incidence rate ratio (IRR), 0.99; 95% confidence interval (CI), 0.98 - 1.01;) in four moderate-quality evidences[3]. This study had some debatable issues like clinical heterogeneity and low quality of included studies. Moreover almost all of the studies had been done before the introduction of the diagnostic role of MRI that assumed to reduce the rate of unnecessary biopsies[6]. On the other hand researchers may need to focus on some additional tests like urinary biomarkers to find a cost effective and more accurate test. Meanwhile a potential candidate person for screening should be engaged in decision-making processes that inform them of the harm and benefits of screening and evoke these preferences[7].

Conclusion

Although screening for prostate cancer with prostate-specific antigen (PSA) may reduce mortality from prostate cancer, the absolute risk reduction is very small. Add on tests may decrease the rate of on necessary biopsies. By using a good share decision making approach for prostate cancer screening PSA weak evidences should be described as strong recommendations.

Conflict of interest

None

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Evidence-Based Practices in Finland Based on Nurse Professionals‘ Descriptions

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Abstract

The aim of evidence-based practices is to promote implementation of nursing interventions that are effective, appropriate, feasible and meaningful for patients. The demand for actualization of evidence-based practices in Finland is based on the national legislation.

The aim of this article is to describe nurses‘, nurse directors‘ and clinical nurse specialists‘ perceptions on the realization of evidence-based practices in nursing in Finland.

In this quantitative descriptive study the data were collected with an e-questionnaire in 2017 in Finland. The data were analysed with descriptive statistical methods.

In total, 1063 nurses and 340 nurse directors and clinical nurse specialists participated in the study. Nurses (64%, n=669) described that the use of evidence in the development of clinical practices is not evident. Most of the nurses (67%, n=702) and over half of the nurse directors and clinical nurse specialists (57 %, n=184) perceived that knowledge about the evidence-based protocols do not spread within their organizations. However, 39 percent of nurses (n=407), and 53 percent of nurse directors and clinical nurse specialists (n=171) described that they are developing clinical practices based on evidence.

The results indicate that nurses need more support in implementing evidence into practice.

Keywords

Decision-making, Evidence-Based Practice, Nurse, Nursing

Background

In Finland, the Health Care Act[1] demands that “the healthcare shall be based on evidence and recognised treatment and operational practices". The purpose of evidence-based practices (EBP) is to ensure high quality and safe services for all people[2] by providing nursing interventions that are effective, appropriate, feasible and meaningful[3]. One key aspect in EBP is to reduce interventions and practices that vary unjustifiably between different organizations or care providers[4-5]. The consistent practices across organizations and care providers increase efficiency, quality of care and patient safety.[2]

The Ministry of Social Affairs and Health in Finland published an Action Plan for Nursing[6] which aim was among other things to support use of evidence-based and good practices in the healthcare services. The Nursing Research Foundation (NRF), the Finnish Centre for Evidence-Based Health Care: A Joanna Briggs Institute Centre of Excellence (JBC Finland) and the WHO Collaborating Centre for Nursing (WHOcc) are all aiming to promote EBPs in nursing at national level. The NRF is also following how EBPs are implemented into healthcare. This article is based on a report[7] previously reported in Finnish presenting the results of a national survey concerning implementation of EBPs in Finland.

Aims

The aim of this article is to describe nurses', nurse directors' (ND) and clinical nurse specialists' (CNS) perceptions on the realization of evidence-based practices in nursing in Finland.

Methods

The NRF together with the Finnish Nurses Association collected the data in 2017 using e-questionnaires. The questionnaire was available in Finnish and Swedish. It was distributed to nurses, NDs and CNSs via email using registers of trade unions after receiving permissions from the unions to carry out the study. The questionnaire was constructed based on the Action Plan for Nursing[6] and previous research on the subject[2, 8-11]. Some of the items were based on international Evidence-Based Practice Process Assessment Scale[12] and the permission to use parts of the scale was obtained from the copyright holders. The data were analysed with descriptive statistical methods (frequensis and percentages) using the SPSS) Statistics for Windows version 22.0 program.

Results

In total 1063 nurses and 340 NDs and CNSs participated in the study. The characteristics of the respondents is presented in Table 1.

Table 1: Characteristics of the respondents (N=1403).

	Nurse		ND*		CNS**	
Characteristics of the respondents	n	%	n	%	n	%
Work experience in nursing						
< 4 years	101	10	-	-	1	1
5-10 years	208	20	20	8	10	14
11-20 years	335	32	54	23	18	26
> 21 years	402	38	167	69	41	59
Total	**1046**	**100**	**241**	**100**	**70**	**100**
Work experience as a director/specialist						
< 4 years	-	-	50	21	27	37
5-10 years	-	-	69	28	24	33
11-20 years	-	-	87	36	13	18
> 21 years	-	-	37	15	9	12
Total	**-**	**-**	**243**	**100**	**73**	**100**

ND* = Nurse director, CNS** = Clinical nurse specialist

The most of the nurses were confident of their competencies regarding EBP such as how to find the best available evidence (70%, n=730) and how to assess the development needs of current practices (76%, n=786). Less than half of all the respondents (43% of the nurses, n=452; 49% of the NDs and CNSs, n=158) perceived that requisite evidence is available for the basis of clinical practices in their organizations. Approximately one third (37%, n=118) of the NDs and the CNSs perceived that availability of research evidence has been ensured.

The majority of the NDs and the CNSs (63%, n=204) perceived that EBP is considered as a strategic goal in their organisation. However, majority of the nurses (64%, n=669) described that the use of evidence in the development of clinical practices is not evident. In addition, the nurses described that the current practices used for evidence dissemination (65%, n=679) and implementation (66%, n=687) are not practical.

Most of the nurses (67%, n=702) and over half of the NDs and CNSs (57 %, n=184) perceived that knowledge about the evidence-based protocols do not spread within their organizations. There was some variation in the opinions of the NDs and the CNSs. Half of those who worked at the university hospitals (50%, n=30), and more than half of those who worked at central hospitals (54%, n=42) and primary healthcare, private or tertiary sector (62%, n=111) perceived that the knowledge about the evidence-based protocols do not spread within their organizations.

However, 39 percent of nurses (n=407), and 53 percent of NDs and CNSs (n=171) described that they are developing clinical practices based on evidence. More than half of the nurses (55%, n=568) perceived that the instructions concerning treatments are evidence-based. Approximately half of the NDs and the CNSs (51%, n=163) also perceived that their organization has agreed on the implementation of the evidence-based clinical guidelines. Allmost all of the NDs and the CNSs (86%, n=262) perceived that they do not have time to assess the actualization of EBP. Furthermore, although nurses understood how to assess the results of their work (83%, n=862), only a few of them had enough time for the assessment (39%, n=412).

Discussion

The results brought up that evidence is utilized in some form in nursing practices and the improvement of current practices. However, the results pointed several areas of further development of EBPs. The results pointed that nurse professionals' attitudes towards EBP are positive but still the implementation of the evidence is insufficient. This result is in-line with previous studies.[13] It also seems based on the results that there is a need to further consider the practices used for enhancing availability of evidence. A need for easily available evidence in clinical practice is recognized also in previous studies [14-15]. One possibility could be to further develop information technologies supporting EBPs[15].

The results indicated that nurses evaluated actualization of the EBPs weaker than the NDs and CNSs. However, the e-questionnaire was distributed to over 50 000 nurse professionals, and thus, the response rate was fairly low. In addition, the participating nurses, NDs and CNSs were from different organizations which may have influenced the results.

Conclusion

Nurse professionals have positive attitudes to EBP although the results indicate that nurses need more support in implementing evidence into practice. The actualization of EBP and consistent practices in Finland requires co-operation between education and practice. One solution could also be to further develop information technologies supporting EBPs. The purpose is to re-conduct the nationwide survey concerning actualization of EBP every 2–3 years and to follow how the implementation of EBP is improving in Finland.

Conflict of interest

No conflict of interest has been declared by the authors.

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User perspectives on the barriers and facilitators to the uptake of contraceptives in east africa: a qualitative synthesis of evidence

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Abstract

Despite the established health benefits of contraceptive use conferred both to the mother and child, low contraceptive uptake and high unmet need for contraception remain significant in East Africa.

To systematically synthesise qualitative evidence on the barriers and facilitators to contraceptive uptake in East Africa and develop lines of action from synthesised findings.

A systematic review was conducted with relevant literature obtained from four databases (PubMed, CINHAL, Scopus, EMBASE). Results were meta-aggregated and developed into synthesised findings.

10 studies met the review inclusion criteria. Major barriers identified across the studies include myths and misconceptions leading to a fear of using contraceptives, financial costs, the role of gender norms and power dynamics, health service barriers and external influences that limit contraceptive uptake. Couple communication, awareness of costs associated with large families and certain religious denominations were seen to facilitate the use of contraception.

In order to meet contraceptive needs in East Africa, policy reforms need to take place, integrating gender equality in to family planning policies as well as engaging local leaders in policy reforms. Social and behaviour change strategies are pivotal in family planning programmes to demystify existing myths and misconceptions. Community level engagement of local leaders can aid in altering cultural and societal practices undermining the uptake of contraceptives.

Keywords

Contraception, East Africa, policy implications, qualitative, evidence based healthcare, women and families

Background

The right of an individual decide on the number of children to have and when to have them has been a guiding standard in sexual and reproductive health. Goal 5 of the Millennium Development Goals (MDGs) focused on efforts to reduce maternal deaths and ensure universal access to reproductive health, including family planning[2]. Other pivotal initiatives successfully supporting and increasing the global commitment to family planning include the IPPF Family Planning 2020 (FP2020) report[3].

Estimates from 2017 report that 214 million women of reproductive age have an unmet need for modern contraception[4]. The concept of unmet need for contraception came about in response to the need for the international community to validate the existence of a need for preventing pregnancy in developing countries with high fertility rates5. The indicator was initially called the "KAP-Gap", then later replaced with "unmet need for contraception", and has since been an important concept in the advocacy, evaluation and research in family planning[5].

Since 1980 use of modern contraceptives has increased steadily in regions all over the world, however Africa is still lagging in comparison with other regions. It is estimated that by 2015 more

that 64% of women of reproductive age who are married or in-union worldwide were using a modern contraceptive method, except in Africa where only 32% were using modern contraceptive methods[1,6].

There is a mixed picture of contraceptive use in East Africa. Despite progress in prevalence of contraceptive use and rising age at first birth, there remains an unmet need for family planning estimated to be 24% in 2015 in East Africa[6,7]. This is coupled with low uptake of long-acting family planning methods and high levels of teenage pregnancies[7].

Having unmet needs for contraception affects women of variable socio-economic status and education levels. This signifies that factors other than level of education hamper the uptake of family planning[7].

To date there has been no systematic review conducted exploring the barriers and facilitators of contraceptive uptake from a user perspective in the context of East Africa. Considering the high-unmet need for contraception in East Africa, there is therefore a need for a comprehensive qualitative synthesis of evidence in this area in order to inform different family planning stakeholders in the region.

Aims

The overall aim of the review is to identify and synthesise the key barriers and facilitators to the uptake of contraception in East Africa.

The review has the following objectives.

1. To systematically identify evidence on the barriers and facilitators to the uptake of contraception.
2. To appraise and synthesise using meta-aggregation evidence on the barriers and facilitators to the uptake of contraception.
3. To develop lines of action or recommendations from synthesised findings in order to inform different family planning stakeholders in the region.

Methods

This systematic review was guided by the following research question:

What are the barriers and facilitators to the uptake of modern contraceptives in East Africa?

Population:

1. Women of reproductive age utilizing modern contraceptive methods or family planning services. Women of reproductive age refers to all women aged 15–49 years[8].
2. Men of all ages utilizing modern contraceptive methods or family planning services.

Phenomena of Interest:

Use of contraceptives or uptake of family planning services.

Context:

Studies where the population of interest reside in East Africa.

Review Inclusion Criteria:

The following criteria guided the selection of studies that were included in the review:

1. Studies where the study population were women of reproductive age or men utilizing modern contraceptive methods or family planning services.

2. Studies where the study population reside in the countries stated.
3. Studies examining the barriers or facilitators in the use of contraception or uptake of family planning services.
4. Primary studies employing qualitative methods.
5. Studies published after 2000. The year 2000 has been chosen as this coincided with the roll out of the MDGs.

Results/Discussion

In total 1,443 studies were retrieved from the four electronic databases searched, with 1,388 studies remained after removal of duplicates. Screening of titles and abstracts of the remaining 1,388 studies resulted in the exclusion of 1,344 articles resulting in 44 articles undergoing full text assessment for eligibility. Ten studies met the inclusion criteria for the review and were included in the synthesis.

Categories were synthesised and meta-aggregated in to barriers and organized in to synthesised findings.

Conclusion

In order to meet contraceptive needs in East Africa, policy reforms need to take place, integrating gender equality in to family planning policies as well as engaging local leaders in policy reforms. Social and behaviour change strategies are pivotal in family planning programmes to demystify existing myths and misconceptions. Community level engagement of local leaders can aid in altering cultural and societal practices undermining the uptake of contraceptives.

Conflict of interest

We declare no conflict of interest. The student received funding to undertake a Masters in Public Health at The University of Nottingham

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Implementing research findings into practice: Frameworks and guidance

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Abstract

Change is not made without inconvenience, even from worse to better.' Richard Hooker, 1554–1600. Health services across the world are constantly introducing changes into their workplaces and these affect many people. As new robust and reliable evidence become available, it is important that changes to practice are made. As health professionals, we have to be flexible and accommodate change this change; for some this means disruption, challenge and having to learn new ways of doing things.

Barriers exist that prevent or delay changes being made to established practice in all organisations, whatever the culture (NICE 2007). This is a world-wide problem. It is important to understand the barriers to change so that solutions can be found. Some changes that are needed don't occur, because clinicians are unaware of the new evidence, whilst for others there needs to be something introduced to drive forward the change. This process is not a passive one; active involvement is needed for the change to be successful. Individual attitudes and beliefs play a significant part in change, and their influences are often underestimated, so these also need to be explored. Practice change may require new skills to be learnt – another obstacle for change.

In this short communication, the science behind evidence implementation is introduced and then some of the factors that impact on change are explored, drawing on three useful models and frameworks including the Theoretical Domains Framework of behaviour change (Michie et al, 2005; Cane et al, 2017), the Knowledge to Action Framework (Graham et al, 2006), and i-PARiHS (Harvey and Kitson, 2016).

Ultimately there remains a gap between interventions that research has shown to be effective and their translation into practice; this has to be closed.

Editorial Board member for Implementation Science; Director of The University of Plymouth Centre for Innovations in Health and Social Care: A Joanna Briggs Institute Centre of Excellence.

Keywords

Implementation Science, Knowledge translation, Evidence-Based Healthcare, Joanna Briggs Institute

Background

In 2012, Grimshaw et al[1] reported that consistently, research findings fail to be translated in a timely manner into practice and policy. Consequently there has been a growing interest in how this can be rectified. The science related to implementation of evidence into practice has been evolving as a means of identifying the methods and approaches to address these problems, driving both small and large scale change. Implementation should be seen as a process, rather than an outcome, however, and as May commented, this is a complex mix of actions and activities[2], all aimed at securing behaviour change.

The use of terminology to explain the process of implementation has created some confusion, because across the world different disciplines use different terms for the same concept. Health has favoured Knowledge Translation with the key influence being from Canada, whilst the UK has been moving towards using the words Knowledge Mobilisation. Other terms include research

translation, knowledge exchange and implementation science. To complicate matters further, more recently the term 'improvement science' has been introduced, and is found primarily in the UK and US literature. It provides another framework for health research and other activities based on healthcare improvement[3]. Miltner et al[4] argue that the 'Lack of consensus adds to the tension about the core of quality improvement research (QIR)/ Improvement Science' and that the inability to clearly define quality improvement research and improvement science slows down the speed of change.

Aims

The aim of this paper is to explore how the use of frameworks can help to guide and inform implementation activities. Three of these will be drawn up to highlight how they have been used to bring about practice change.

Discussion

When considering theories or frameworks related to the science of implementation, there are largely three broad groups:

- Motivational: explain behaviour of people who have not yet established intention – e.g. Theory of Planned Behaviour[5]
- Action: explain behaviour of people who have identified a need to change – e.g. Operant Conditioning[6]
- Organisational: explain 'institution' level change – e.g. Diffusion of Innovations theory[7]

When deciding what theory to use, a pragmatic choice is best, in that it is important to explore the key focus of attention for the change that is planned and find the theory that has the best fit or alignment with this.

For the purpose of this communication, three approaches to implementation have been singled out, as these are ones that have been shown to be useful in a number of countries throughout the world. These are: The Theoretical Domains Framework[8]; the Integrated (i) PARIHS framework[9]; and the Knowledge to Action framework (KTA)[10]. Each of these will be outlined briefly and its use in practice highlighted.

The Theoretical Domains Framework (TDF)(8)

The TDF was developed using an expert consensus process and validation (led by Susan Michie, from University College London) to identify psychological and organisational theory relevant to health practitioner clinical behaviour change. The framework consisted, initially, of a set of 12 domains covering the main factors influencing practitioner clinical behaviour and behaviour change, then a further two were added, making 14 in total. For more information about the domains, please see https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1743963/pdf/v014p00026.pdf (accessed 18/10/2018). Each of these domains contains a number of concepts (see http://www.implementationscience.com/content/7/1/37/table/T2). The approach was informed by the development of the COM-B model, (http://www.ktcanada.ohri.ca/workshop_tdf/TDF_Michie.pdf), which also led to the development of the Behaviour Change Wheel [11].

The TDF has been widely ideas in implementation studies across the world, and there is a collection of papers, all open access, in Implementation Science (http://www.implementationscience.com/series/TDF).

I-PARiHS

This model was developed originally by nurse academics/researchers[12] at the United Kingdom's Royal Collage of Nursing to aid the implementation of research evidence into practice. In its original form, there were three main areas of activity to assess ranging from weak to strong: Evidence;

Context; and Facilitation

More recently, the model has been revisited by two of the original team[9] and the concepts revised to more accurately reflect successful implementation. This activity includes:

- Achievement of agreed implementation/project goals
- The uptake and embedding of the innovation in practice
- Individuals, teams and stakeholders are engaged, motivated and 'own' the innovation
- Variation related to context is minimised across implementation settings

A number of factors are identified for consideration under each of the three headings: Innovation; Recipients; Context

For an example of the use of i-PARiHS, see Harvey and Kitson's work [9,13].

Knowledge to Action Framework

This framework was developed in Canada by Ian Graham and colleagues at the Canadian Institutes for Health Research[10]. It focuses on two main areas of activity: Knowledge creation and knowledge tailoring (see Figure 1). The first phase explores the creation of knowledge tools or products such as an intervention or a clinical guideline that is informed by evidence. The second phase guides the implementation of the product, including the exploration of barriers and enablers to implementation, any tailoring that may be required and the evaluation of the implementation process.

The KTA framework has been used in small scale and large scale implementation studies; and example of the latter is the WHO study aimed at combatting maternal and perinatal health. (see http://www.who.int/reproductivehealth/topics/best_practices/greatproject_KTAframework/en/)

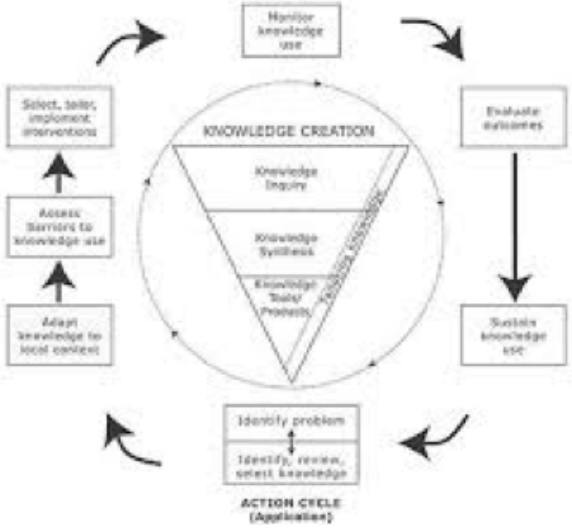

Figure 1: Knowledge to Action Framework (10)

Conclusion

There is a growing recognition of the need to do things differently and embrace change to facilitate improvements for our patients

We need to understand the factors that impact, positively and negatively, on our individual practice

Alone we can achieve small changes, but together we can drive forward significant change – we can't allow the translation of research findings into any change in clinical practice to take at least 17 years[14].

Conflict of interest

I am the Director of the University of Plymouth Centre for Innovations in Health and Social Care: A Joanna Briggs Institute Centre of Excellence

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Use of epidemiological analyses in Clinical Practice Guideline development focused on the diabetic patients treated with insulin

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Abstract

The prevalence of diabetes is on the rise worldwide especially in developed countries. The aim of glucose management in all types of diabetes is to minimize chronic and acute complications associated with diabetes. All patients with type 1 diabetes mellitus (T1DM) require insulin. Main areas of technology advances in diabetes are continuous subcutaneous insulin infusion (CSII) and also continuous glucose monitoring (CGM) systems for the management of patients with both types of diabetes. It is very important to analyse epidemiological situation within each country before and during the clinical practice guidelines (CPG) development and implementation. The analyses will allow us to monitor the effect of the CPG after its implementation.

Aim of this short communication is to analyse epidemiology of prevalence and incidence of diabetes mellitus and use of continuous subcutaneous insulin infusion to inform development of clinical practice guideline in the Czech Republic in this area.

The analysis was developed based on the data managed by Institute of Health Information and Statistics of the Czech Republic (IHIS CR). We used as the primary source National Register of Reimbursed Health Services (NRRHS) 2015–2017 and as the validation source was used the annual report type A (Ministry of Health) 1-01: for Diabetology (A MH 004) 2007–2017. The presented data are related to the year 2016 because for this cohort we were able to validate them based on the 2015 and 2017 data.

Number of patients with T1DM is increasing in the Czech Republic with no significant gender difference. Life expectancy is about 11 years lower in T1DM population. Majority of the patients are in older age, however these are not treated with CSII compare to younger population. From 61533 patients with T1DM, 81% were reported with acute and chronic complications in 2016. Only 5011 of these patients were reported with CSII.

Keywords

Type 1 diabetes mellitus, continuous subcutaneous insulin infusion, epidemiology, clinical practice guidelines

Background

The prevalence of diabetes is on the rise worldwide especially in developed countries, for example more than 1 from every 10 adults aged over 18 years is affected[1]. Patients with diabetes are in greater risk of hospitalization compare to population without diabetes [2]. The incidence of diabetes has more than doubled during the past two decades to a total of 7.2 million hospital discharges accounting for a 43.1 million hospital days among adults in USA[1].

The aim of glucose management in all types of diabetes is to minimize the risk of chronic and acute complications associated with diabetes like risks of macrovascular and microvascular complications and premature mortality[3,4]. All patients with type 1 diabetes mellitus (T1DM) require intensified insulin regimen including continuous subcutaneous insulin infusion (CSII) and patients with type 2 diabetes mellitus (T2DM) frequently need insulin to reach acceptable glucose control[5]. Patients who need intensive insulin therapy get insulin as needed, however intensification of insulin increases the risk of hypoglycaemia that are associated with higher morbidity and mortality. New technology products and management of insulin delivery together with frequent glucose monitoring are needed to improve glucose control, minimizing the risk of hypoglycaemia and improving the quality of life. Diabetes technology has rapidly evolved, and new technologies are developed and improved every year. Main areas of technology advances in diabetes are CSII often with automatic functions and also continuous glucose monitoring (CGM) or emerging flash glucose monitoring (FGM) systems for the management of patients with both types of diabetes, with proven clinical benefits especially in T1DM[6]. It is very important to measure epidemiological situation within each country before and during the clinical practice guidelines (CPG) development and implementation. This knowledge is crucial for aiming the guideline to healthcare with highest heterogeneity in healthcare outcomes and to reflect the current population health status adequately. The analyses will also allow to monitor effect of the CPG after its implementation[7].

Aims

Aim of this short communication is to analyse epidemiology of prevalence and incidence of diabetes mellitus and use of continuous subcutaneous insulin infusion to inform development of clinical practice guideline in the Czech Republic in this area.

Methods

The analysis is developed based on the data managed by Institute of Health Information and Statistics of the Czech Republic (IHIS CR) which are collected within National Health Information System and national health registers of the Czech Republic. We used as the primary source National Register of Reimbursed Health Services (NRRHS) which includes data from health insurance companies as from inpatient so from outpatient facilities within complete data about accounted diagnoses, procedures and treatments which are currently available for 2015–2017. The annual report type A (Ministry of Health) 1-01: speciality for Diabetology (A MH) which is monitoring in aggregated form number of people treated with diabetes mellitus by concrete type of treatment, complications and mortality. The data are reported by diabetologist's offices and also general practitioner's offices in term 2007–2017 and the report was used as validation source.

Patients with T1DM were identified by following criteria:

- at least once in given year a diagnosis of E10.0 – E10.9 was reported by diabetologist (specialization 103)
- the diagnosis of E11.0-E11.9 were not given in the whole time frame (2015–2017)
- because of potential source of bias diagnosis E10.0 – E10.9 and E11.0-E11.9 diagnosed by physicians with other specializations were not taken into account.

The presented data are related to the year 2016 because for this cohort we were able to validate them based on the 2015 and 2017 data.

Data Limitation:

Despite repeated data validation from the National registries, the results are limited by accuracy of reporting in clinical practice which is mostly made by physicians (only in a few hospitals there are specially educated coders). Historically, the patients which were dependent on insulin were coded as E10.x and patients which were not dependent on insulin were coded as E11.x, however if patients with T2DM needed insulin, they were also coded as E10.x as they were at least once reported as

insulin dependent. In the last revision of ICD the code E10.x should be used only for T1DM, however it might historically stay within the documentation for some T2DM patients who needed insulin. So, the total number of patients with T1DM is probably slightly overestimated similarly as the age distribution.

Results/Discussion

In the 2016 were identified 61 553 patients with T1DM from the above mentioned sources. The figure 1 shows an increasing prevalence of T1DM until 2017. There are not statistically significant differences based on the gender differences (52% males and 48% of females). The life expectancy in patients with T1DM is lower than in the total population of the Czech Republic, with the difference decreasing with the age of the patient. In patients with T1DM, the life expectancy is about 11 years lower than in the general population. The trend on the figure 2 demonstrates that difference in life expectancy decreasing with higher age, this results are consistent with another study published recently[8]. Figure 3 is showing complications of T1DM, 81.4% of patients experienced complications which were mainly reported as multiple or unspecified. Acute complications were reported to a lesser extent and they mainly related with decompensation (coma, ketoacidosis). Chronic complications were reported more often mainly peripheral circulatory, renal and ocular. Only in 18.6% of patients were not reported any other complications. The gender representation of the individual suffered from T1DM complications is balanced. Estimated number of patients with T1DM treated with CSII from NRRHS compared to report from diabetologists (A MH 004) data were 5011 patients in 2016. Very interesting results is showing figure 4 that is describing demographical profile of CSII treatment in T1DM patients based on age and gender. Most treated patients with CSII are in younger age under 50 years in both gender, although majority of T1DM patients are in higher age. This result can relates with several factors, for example higher health literacy, information technologies literacy of younger patients, however also with availability of CSII and more traditional approaches of older patients and their physicians (established/custom treatment)[9].

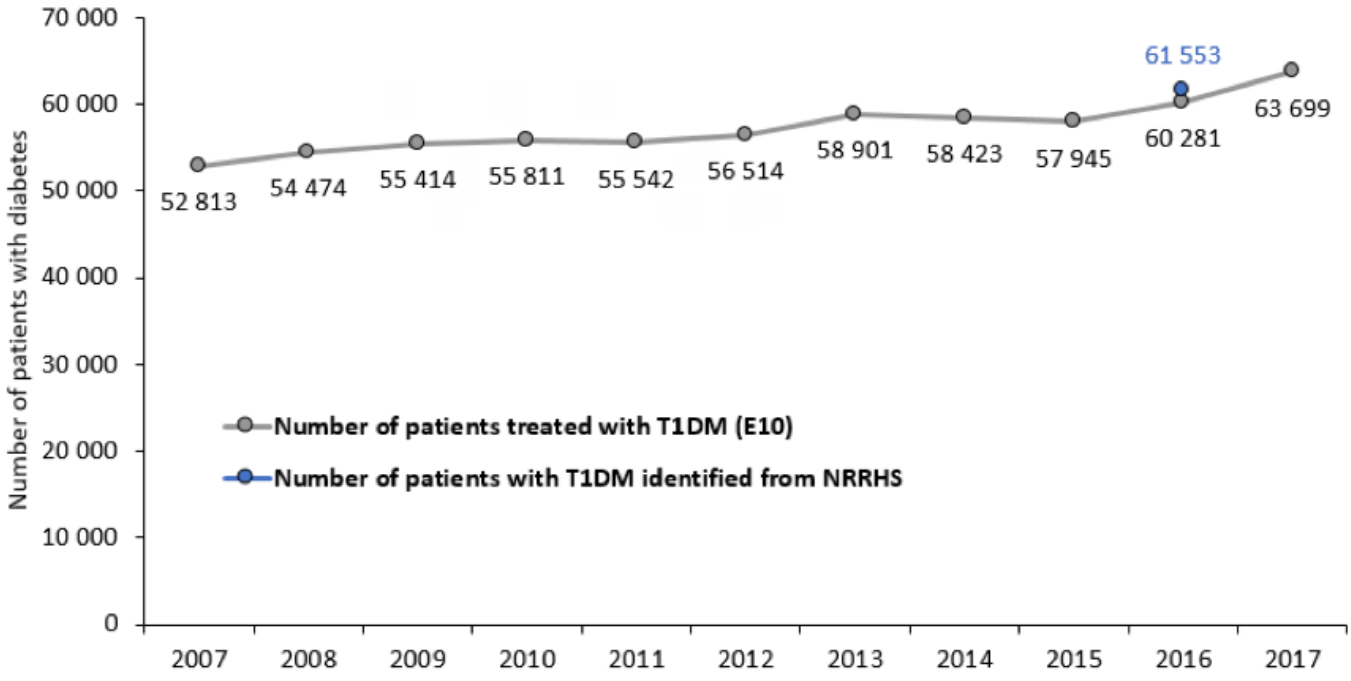

Figure 1: Prevalence of T1DM in the Czech Republic

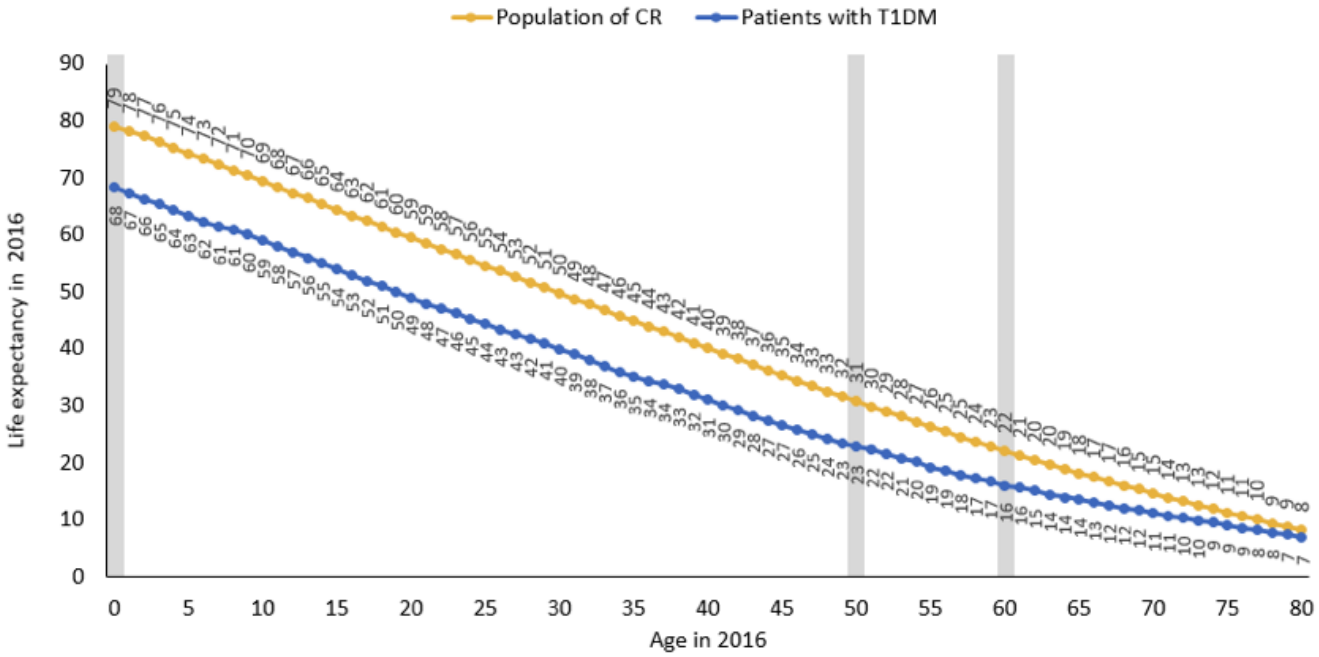

Figure 2: Life expectancy of patients with T1DM compare to general population in 2016

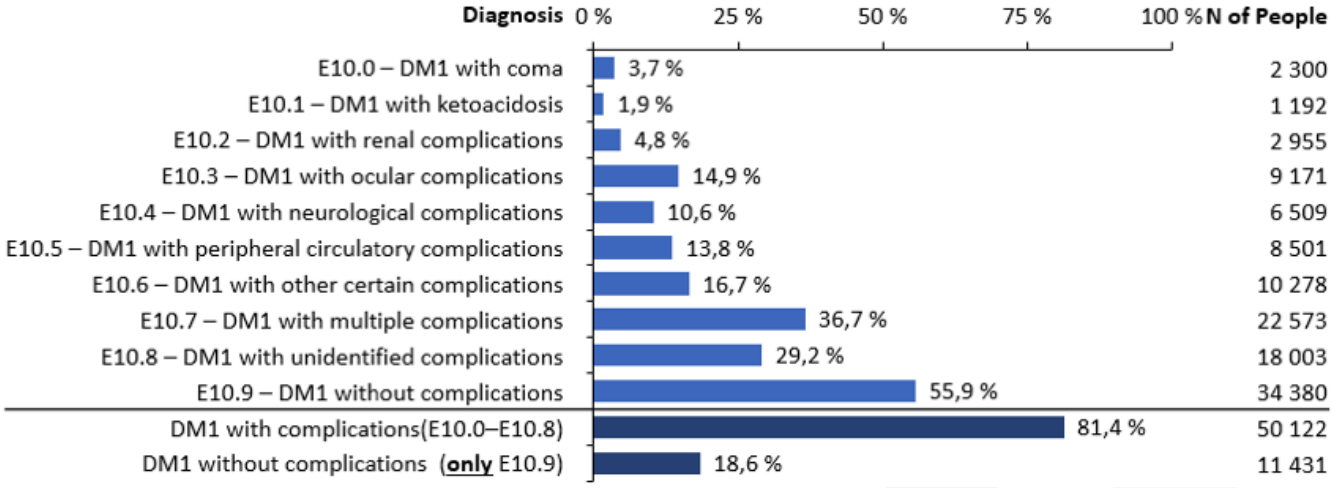

Figure 3: Complications of T1DM

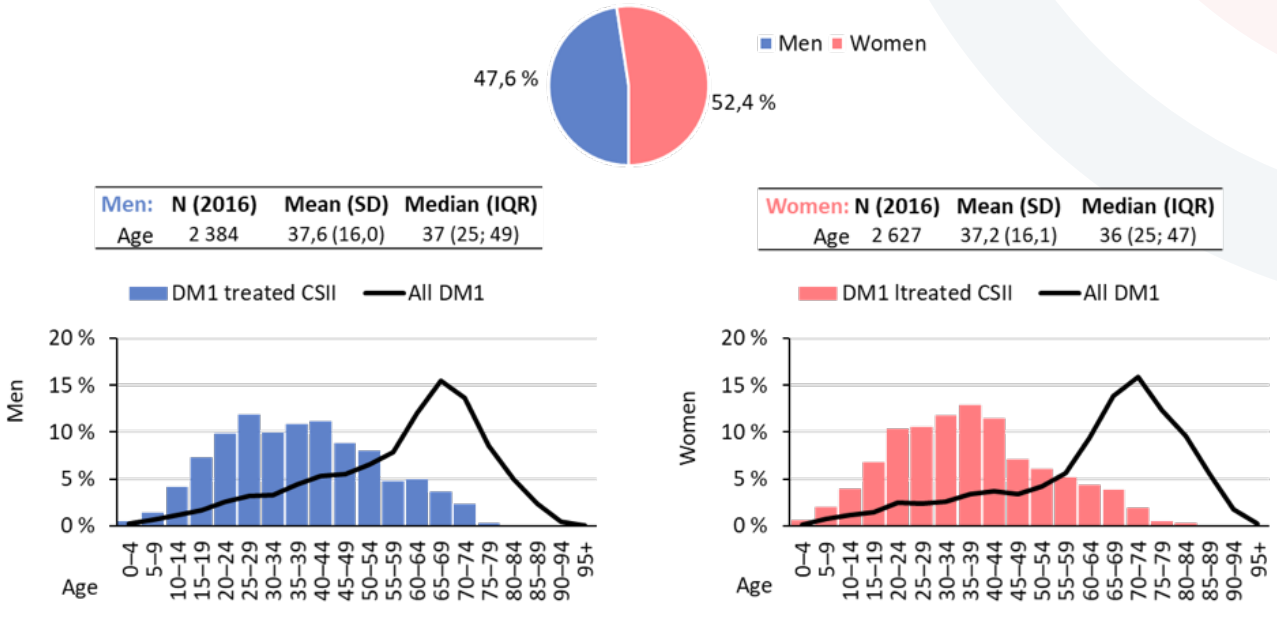

Figure 4: Demographical profile of patients with T1DM treated with CSII

Conclusion

Number of patients with T1DM is increasing in the Czech Republic with no significant gender difference. Life expectancy is about 11 years lower in DM1 population. Majority of the patients are in older age, however these are not treated with CSII compare to younger population. From 61533 patients with T1DM 81% were reported with acute and chronic complications in 2016. Only 5011 of this patients were reported with CSII.

Conflict of interest

There is no direct conflict of interest of any authors. As indirect conflict of interest regarding this publication could be considered fact that dr. Klugar is President of the symposium and Chair of European Joanna Briggs Collaboration.

Acknowledgements

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Czech national project "Clinical Practice Guidelines" methodology and current results

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Abstract

Currently in the Czech Republic, there does not exist such institution as "National Centre for Clinical Practice Guidelines". In 2017, there were about 123 professional medical organizations which developed about 1909 "guidelines" until 2017. However, majority of these guidelines are "expert opinion" or "consensual" based "guidance" or rather recommendations lacking in vast majority systemicity, which reflects Evidence-Based Medicine principles and methods. The project is led by the Czech Health Research Council, first partner is Ministry of Health of the Czech Republic and second partner is Institute of Health Information and Statistics of the Czech Republic with support from policy makers, academics, clinicians and members of the Czech National Centre for Evidence-Based Healthcare and Knowledge Translations (CEBHC-KT). This centre is an umbrella for three very important international collaborations who play key role in Evidence-Based Healthcare, Evidence Synthesis, Evidence Implementation and trustworthy guidelines development. These are Cochrane Czech Republic, Masaryk University Grade Centre and the Czech Republic Centre for Evidence-Based Healthcare: The Joanna Briggs Institute Centre of Excellence.

The main aim of this paper is to present the Czech National methodology of the Trustworthy Clinical Practice Guideline development and the first results of the project "Clinical Practice Guidelines".

A pilot phase of the project was realised during the first year of the project since January until December 2018. As the first step, there were established managing authorities including a Guarantee committee and an Appraisal (Methodological) committee. The Members of the Appraisal committee developed a pilot version of the National Methodology of CPG development based on the best available approaches to Trustworthy Clinical Practice Guidelines development followed by testing on first 5 pilot CPGs.

Keywords

Evidence transfer, Evidence-Based Healthcare, Clinical Practice Guidelines, CPG, GRADE

Background

Currently in the Czech Republic, there does not exist such institution as "National Centre for Clinical Practice Guidelines" (NCCPG), which would systematically collaborate with all relevant stakeholders in the Czech Health System (Professional medical and allied health care organizations, Health and Social Insurance institutions, Patient organizations, etc.).

In 2017, there were about 123 professional medical organizations which developed about 1909 guidelines until 2017. However, majority of these guidelines are "expert opinion" or "consensual" based "guidance" or rather recommendations lacking in vast majority systemicity, which reflect Evidence-Based Medicine principles and methods. This situation together with international experiences and evidence that high quality systematically developed Clinical Practice Guidelines (CPG) has potential to positively influence quality of healthcare in particular country[1-3], initiated wider discussion of relevant stakeholders about the project of NCCPG. The project is led by the

Czech Health Research Council, first partner is Ministry of Health of the Czech Republic (MoH CR) and second partner is Institute of Health Information and Statistics (IHIS CR) of the Czech Republic with support from policy makers, academics, clinicians and members of the Czech National Centre for Evidence-Based Healthcare and Knowledge Translations (CEBHC-KT). This centre is an umbrella for three very important international collaborations who play key role in Evidence-Based Healthcare, Evidence Synthesis, Evidence Implementation and trustworthy guidelines development. These are Cochrane Czech Republic, Masaryk University Grade Centre and the Czech Republic Centre for Evidence-Based Healthcare: The Joanna Briggs Institute Centre of Excellence.

Main tasks of the project is to develop systematically coordinated elaboration of methodological documents, their control and updating in order to unify the preparation of CPG, preparation for legislative anchoring of the methodology of CPG, development and establishment of NCCPG. Overarching aims are reductions of heterogeneity of provided health care due to non-objective circumstances (geographical, availability, individual professional health worker erudition, lack of staff, etc.), and increasing quality and optimizing the funds spent on health care.

Aims

The main aim of this paper is to present the Czech National methodology of the Trustworthy Clinical Practice Guideline development and the first results of the national project “Clinical Practice Guidelines".

Methods

A pilot phase of the project was realised during the first year of the five year project since January until December 2018. As the first step, there were established managing authorities including a Guarantee committee and an Appraisal (Methodological) committee. The main tasks of the Guarantee committee are to: i) determine topics priority for CPG based on epidemiological data provided by Institute of IHIS CR; ii) assessment and approval of CPG proposals; iii) nomination of CPG guarantor and iv) approval of completed CPG. The main role of Appraisal committee is to i) create the National Methodology of CPG development, ii) methodological training of junior members of the Appraisal committee and CPG teams, iii) mentor and support methodologically the CPG development, iv) appraise methodological quality and formal adjustment of developed CPG (see Figure 1).

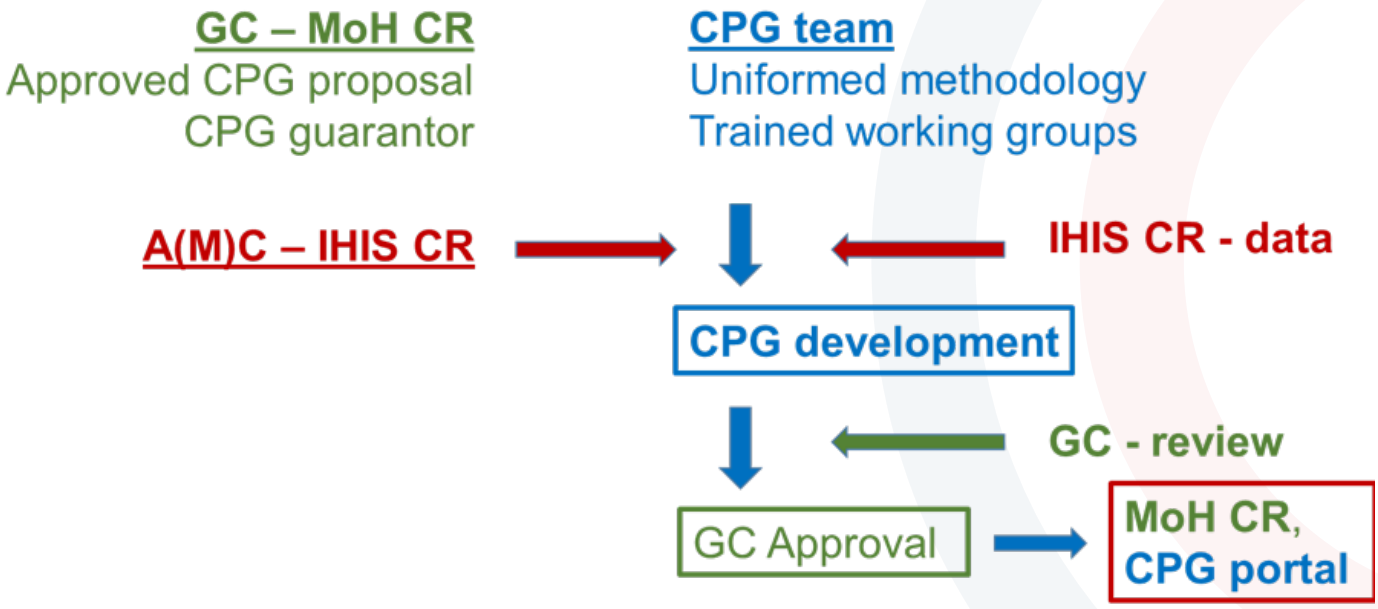
The Members of the Appraisal committee developed a pilot version of the National Methodology of CPG development. Firstly, they have systematically searched all relevant sources related to standardized methodology for CPG development, involving Guidelines International Network (G-I-N), National Institute for Health and Care Excellence (NICE), Scottish Intercollegiate Guidelines Network (SIGN), GRADEworking group, Clinical Practice Guidelines in Oncology (NCCN), National Guidelines Clearinghouse (NGC), etc. Based on the assessment of identified methodological approaches to CPG development, all members of Appraisal committee agreed to follow GIN-McMaster Guideline Development Checklist[4] and synthetized knowledge and evidence of all relevant approaches to guidelines development[5]. The pilot Czech national methodology together with pilot templates for guidelines development was tested on first 5 pilot CPGs (see table 1). Based on the experience for first pilot guidelines was the methodology and templates in living format and was continuously improved to reflect best needs of the guideline developers. Guidance is provided on ADOPTION, ADAPTATION, FULL PROCESS DEVELOPMENT and ADOLOPMENT[5]. GRADE-ADOLOMPENT[6] combines all “classic" methods of guideline development and allows the “rapid guidelines development".

Results/Discussion

Pilot Czech National Methodology for CPG development (CNMG) was developed together with templates for the guideline development. The figure 1 is showing the whole process of CPG development. So, all CPGs conducting within this project, are initiated according to necessity

related to epidemiological analysis done by IHIS CR, based on approved CPG proposal by Guarantee committee, mentored by trained methodologists from Appraisal committee, developed according to the unified National Methodology of CPG development, assessed and approved by Guarantee committee and finally published at portal of Ministry of Health and National portal of CPG. The training activities are focused mainly on critical appraisal of CPG using standardized instruments and process of conducting CPG using GRADE method and ADAPTE. Standardized basic instruments like AGREE II, ADAPTE were already available in the Czech language and implemented within CNMG[5]. Recommended is use of GRADEpro GDT which will be translated into the Czech language and under consideration is also use of MAGICapp as technological support for trustworthy guidelines development. In the process of pilot guidelines development were agreed that AGREE Reporting Checklist will be also translated into the Czech language and appendiced within every newly created guideline. This step will make critical appraisal of our guidelines easier for their reviewers. Based on CNMG the first step in guidelines development is systematic search of literature for existence of relevant high quality CPGs which we can consider for ADOPTION, ADAPTATION or ADOLOPMENT. If relevant guideline of high quality are not identified, systematic search for relevant high quality systematic reviews is performed. If relevant high quality systematic review exists, we continue with ADOLOPMENT. If there is not relevant and high quality guideline or systematic review, we recommend full process guidelines with development of our own systematic reviews[5].

Figure 1: Diagram of Clinical Practice Guideline development.



Legend: GC – guarantee committee, A(M)C – Appraisal (methodological) committee, MoH CR – Ministry of Health of the Czech Republic, IHIS CR – Institute of Health Informatics and Statistics, CPG – Clinical Practice Guidelines.

Table 1: Pilot Clinical Practice Guidelines

NO.	TITTLE OF CLINICAL PRACTICE GUIDELINE
1	Early colorectal cancer (stages I and II) – diagnosis and treatment
2	Chronic lymphocytic leukaemia – diagnosis and treatment
3	Secondary prevention of cardioembolic stroke using antithrombotic therapy
4	Use of Insulin pumps and glucose sensors at diabetic patients treated with insulin
5	Acute coronary syndromes (heart attack, unstable angina pectoris) – diagnosis and treatment

Conclusion

During the first year of the project, there have been established managing authorities including a Guarantee committee and an Appraisal (Methodological) committee and developed the pilot National Methodology of CPG development which was verified on five pilot clinical practice guidelines. GRADEworking group methodology is used as the main method of Czech National Guidelines development.

Conflict of interest

There is no direct conflict of interest of any authors. As indirect conflict of interest regarding this publication could be considered fact that dr. Klugar is President of the symposium and Chair of European Joanna Briggs Collaboration.

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Epidemiological analyses for preparation of Clinical Practice Guidelines related to Acute Coronary Syndromes in the Czech Republic

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Abstract

Coronary heart disease, sometimes also referred to as ischemic heart disease, (IHD) remains as the leading condition causing most deaths and disability-adjusted life years worldwide. Acute coronary syndrome (ACS) represents a subset that is defined by sudden reduction of blood supply in the coronary arteries. ACS consist of i/ unstable angina, ii/ non-ST segment elevation myocardial infarction (NSTEMI), and iii/ ST segment elevation myocardial infarction (STEMI).

This short communication has the aim of providing underlying data about current prevalence and incidence of ACS to inform development of clinical practice guideline (CPG) in the Czech Republic.

The Institute of Health Information and Statistics of the Czech Republic (IHIS CR) has provided the data that are collected by the National Health Information System (NHIS) where the primary source was the National Register of Reimbursed Health Services (NRRHS) that provided data for the period between 2015-2017.

There has been a slight decrease in the number of hospitalised patients for ACS in the Czech Republic from 2015 to 2017. Gender difference remains large, with majority (two thirds) of those hospitalised for unstable angina, NSTEMI or STEMI being men. Hospitalization with STEMI is reported in younger age as for men so or women compare to NSTEMI and unstable angina.

Keywords

Acute coronary syndromes, heart attack, ischemic heart disease, unstable angina, NSTEMI, STEMI, epidemiology, clinical practice guidelines

Background

Coronary heart disease, sometimes also referred to as ischemic heart disease, (IHD) remains as the leading condition causing most deaths and disability-adjusted life years worldwide. Acute coronary syndromes (ACS) represent a subset that is defined by sudden reduction of blood supply in the coronary arteries. ACS consist of i/ unstable angina, ii/ non-ST segment elevation myocardial infarction (NSTEMI), and iii/ ST segment elevation myocardial infarction (STEMI)[1,2].

Significant declines in death rates from ischaemic heart disease (IHD) have been noted in high income countries since the 1960s[3,4]. Despite this progress, IHD remains at the top for mortality and number of DALYs incurred for both low and high-income countries[5]. IHD is currently reported almost 20% of all deaths in Europe, however observed is high variation in particular European countries[6]. The incidence of NSTEMI and STEMI also varied among European countries with incidence rate for STEMI ranged from 43 to 144 per 100 000 per year[7]. Observed is the pattern for STEMI which is more common in younger people and also it is more common in men. It is observed that women compared to men develops IHD around 7-10 years later, however myocardial infarction is leading cause of death in women as well. The difference between acute coronary syndrome (ACS) in men

and women is observed in the age category. Majority of patients below the age of 60 are men, however above age of 75 are mainly women patients suffering ACS[2,8], which logically corresponds to women's longer life.

Very important in ACS care is the knowledge translation and implementation of the current best available evidence into clinical practice and public health. Towards this is also important to analyse epidemiological situation within each country before and during the clinical practice guidelines (CPG) development and implementation. This knowledge is crucial for aiming the focus to health care with highest heterogeneity in healthcare outcomes and to reflect the current population health status adequately. Clinical practice guidelines are one of the useful tools to achieve it[9].

Aims

This short communication has the aim of providing underlying data about current prevalence and incidence of ACS to inform development of clinical practice guideline in the Czech Republic.

Methods

These analyses were conducted on the basis of data managed by the Institute of Health Information and Statistics of the Czech Republic (IHIS CR) and collected by the National Health Information System (NHIS) and national registers. The primary register used was the National Register of Reimbursed Health Services (NRRHS) which includes data from health insurance companies as from inpatient so from outpatient facilities within complete data about accounted diagnoses, procedures and treatments which are currently available for 2015–2017 period.

Hospital admissions for acute coronary syndromes have been identified from data of NRRHS on the basis of the following criteria:

- Unstable angina: principal diagnosis I20.0
- NSTEMI: I21.4
- STEMI: I21.0–I21.3, I21.9 or I22 (all sub categories)
- Acute myocardial infarction (AMI): I21 or I22 (all sub categories)
- Patients who died prior to hospital admissions are not included. If a patient has been admitted within 30 days of last admission for ACS, such case is considered as rehospitalisation and being counted as the same case of ACS.

Results/Discussion

Number of hospitalized cases of ACS are slightly decreasing, in 2017 there were reported 15012 cases of acute myocardial infarction (AMI). Highest decrease was reported in unstable angina about 800 cases less in 2017 compared to 2015, STEMI are also slightly decreasing about 600 cases less in 2017 compared to 2015, in NSTEMI are decreasing lowest about 350 cases less in 2017 compared to 2015 (figure 1).

Demographic profile of patients hospitalized in 2017 with NSTEMI is showed in figure 2. NSTEMI is more often reported in men (64%) than in women (36%). Men are reported in younger age (average 68 years) than women (average 74 years). The proportion of hospitalized cases of NSTEMI patients is gradually increasing with age to 0.5% for men and almost 0.4% for women relative to whole population (figure 3).

Demographic profile of patients hospitalized in 2017 with STEMI is showed in figure 4. STEMI is more often reported in men (66%) than in women (34%) which is slightly different from NSTEMI. Men are reported in younger age (average 65 years) than women (average 73 years). Younger patients are reported with STEMI than NSTEMI and unstable angina which is in congruence with data from other countries[8,10]. The proportion of hospitalized cases of STEMI patients is gradually

increasing with age and is reported in more than 0.2% of population from 65 years (figure 5).

Unstable angina was in 2017 more often reported in men (67%) than in women (33%). Men are reported in younger age (average 67 years) than women (average 71 years). The proportion of hospitalized cases of unstable angina patients is gradually increasing with age to 0.25% for men and almost 0.11% for women around 80 years in relation to whole population.

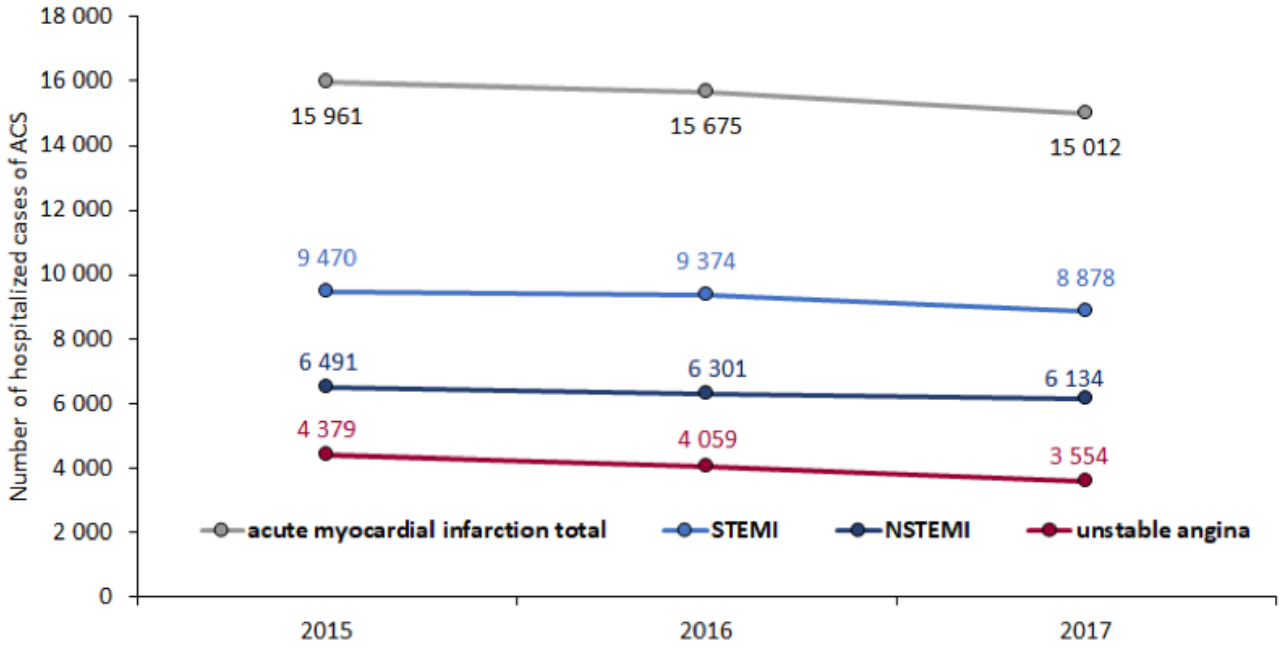

Figure 1: Number of hospitalized cases of ACS in 2015–2017

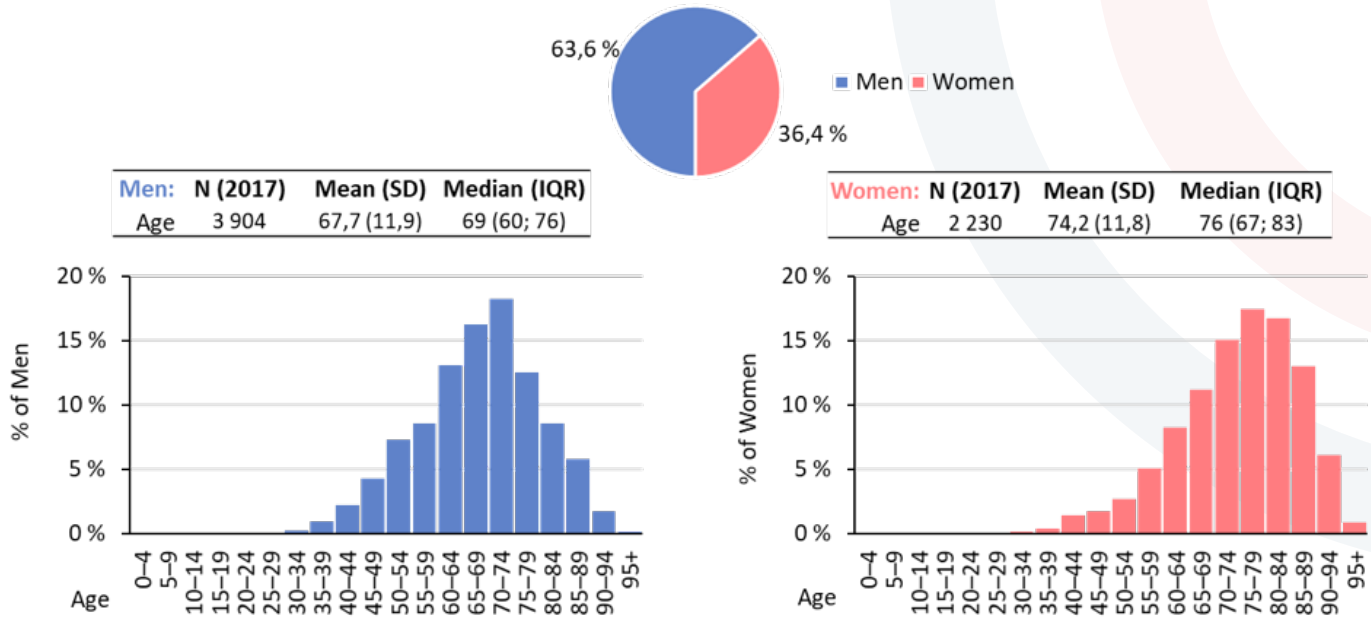

Figure 2: Demographic profile of patients hospitalized in 2017 with NSTEMI

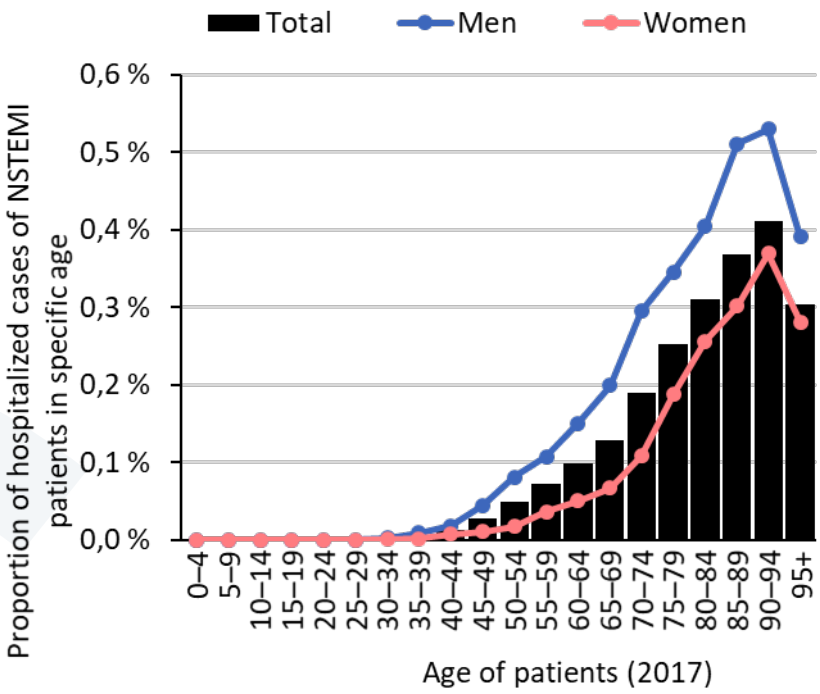

Figure 3: Proportion of patients hospitalized in 2017 with NSTEMI in relation to whole population

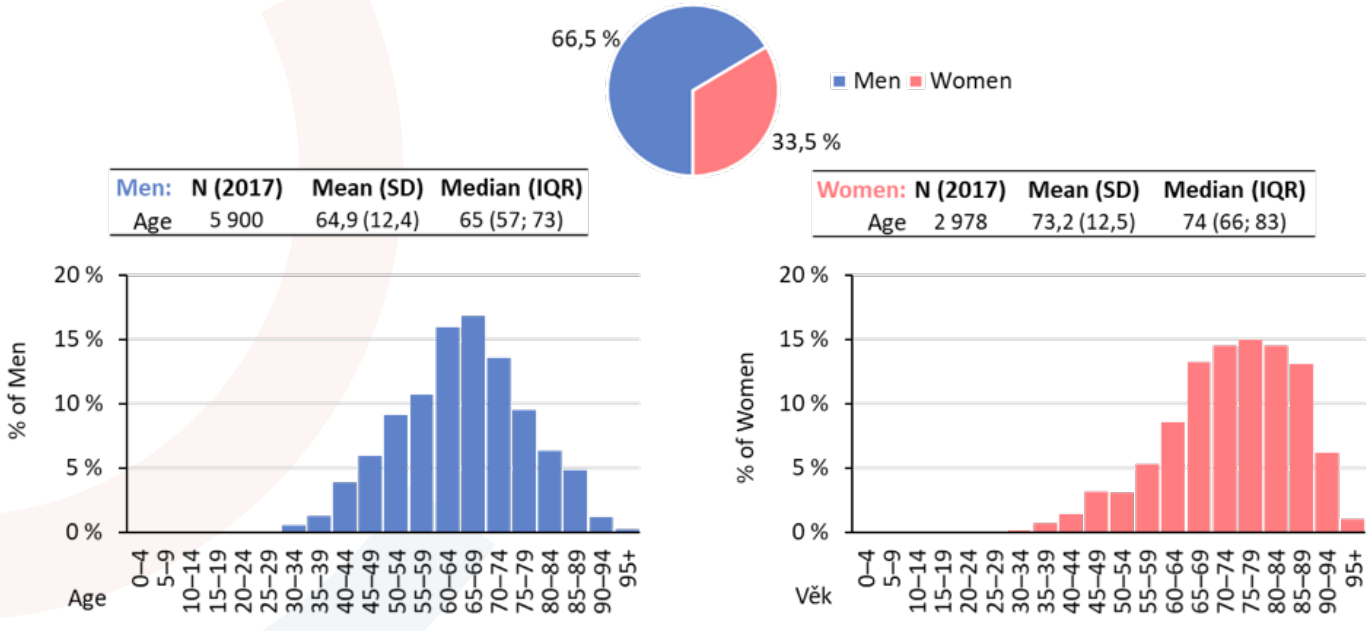

Figure 4: Demographic profile of patients hospitalized with STEMI in 2017

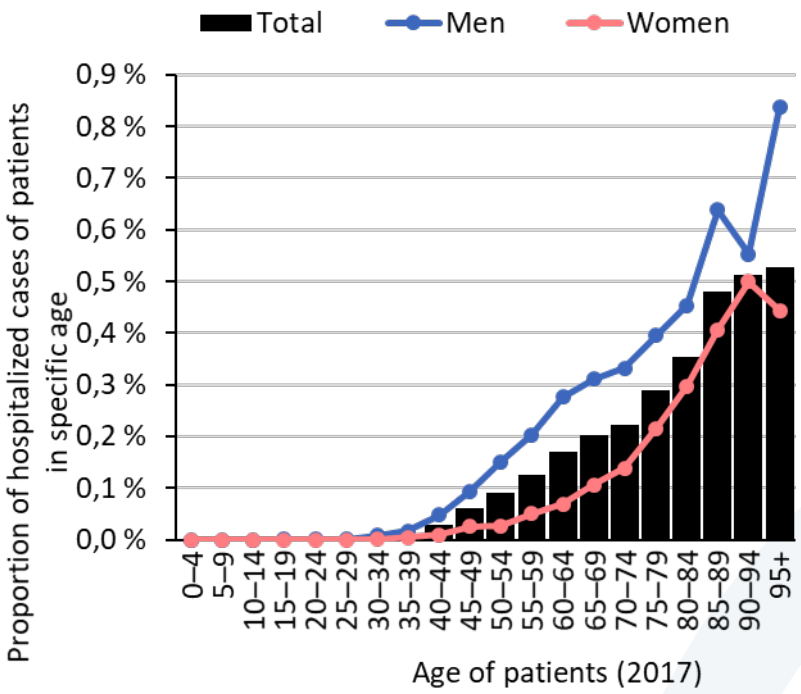

Figure 5: Proportion of patients hospitalized with STEMI in relation to whole population in 2017

Conclusion

Number of hospitalized cases of ACS are slightly decreasing, in 2017 there were reported 15012 cases of acute myocardial infarction (AMI). The highest reduction was reported in unstable angina, about 800 cases less in 2017 compared to 2015, STEMI are also slightly decreasing, about 600 cases less in 2017 compared to 2015, in NSTEMI the reduction is lowest about 350 cases less in 2017 compared to 2015.

Unstable angina, STEMI and NSTEMI are reported more often in men than in women and in all three diagnostic groups within men in younger age than in women in the nationwide health registers. Hospitalization with STEMI is reported in younger age as for men so or women compare to NSTEMI and unstable angina.

Conflict of interest

There is no direct conflict of interest of any authors. As indirect conflict of interest regarding this publication could be considered fact that dr. Klugar is President of the symposium and Chair of European Joanna Briggs Collaboration.

Acknowledgements

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The association between mode of birth delivery and attention deficit-hyperactivity disorder: a systematic review protocol of epidemiological evidence

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Abstract

Caesarean section (CS) is currently the most frequently performed intervention after episiotomy in obstetrics and one of the most common abdominal operation at all. Rates of CS have been rising globally. Given the increasing rate worldwide it is therefore necessary and important to understand how CS affects child development. Attention-deficit/hyperactivity disorder (ADHD) is the most common neurobehavioral disorder in children. ADHD is characterized by combination of symptoms including inattention, impulsivity and hyperactivity. CS may affect psychological development through changes in microbiota or stress response and birth by CS can be associated with a small increased risk of Attention-deficit/hyperactivity disorder (ADHD). In the current literature, there is no systematic review or protocol of the systematic review answering the question if the mode of delivery has influence on the risk of ADHD development.

The objective of this review is to synthetize the best available evidence regarding the epidemiological association between the mode of delivery (CS versus vaginal delivery) as exposure and ADHD as the outcome.

A three-step strategy will be utilized in this review, aiming to find both published and unpublished . The initial search will be conducted using the MEDLINE, CINAHL and EMBASE. The second search will involve 21 databases and sources. Following the PRISMA statement analysis of title, abstracts and full texts, critical appraisal and data extraction will be carried out on selected studies using standardized instruments developed by Joanna Briggs Institute (JBI). All steps will be performed by two independent reviewers. If possible, statistical metaanalysis using JBI SUMARI will be pooled. Statistical heterogeneity will be assessed.

The results will be disseminated by publishing in a peer-reviewed journal. Ethical assessment is not needed - we will search/evaluate the existing sources of literature.

Keywords

ADHD, Attention deficit hyperactivity disorder, caesarean delivery, caesarean section, C-section, neurobehavioral disorder, vaginal delivery

Background

Caesarean section (CS) is currently the most frequently performed intervention after episiotomy in obstetrics and one of the most common abdominal operation at all[1]. Rates of CS have been rising globally. According to the latest data from 150 countries, the average global rate of CS is 18.6%.

The highest rate of CS (40.5%) has Latin America and the Caribbean region, followed by Northern America (32.3%), Oceania (31.1%), Europe (25%), Asia (19.2%). The lowest rate of CS was found in Africa (7.3%) and more specifically in Western Africa (3%)[2]. In Czech Republic, there were in 2013 25.6% of births ended by caesarean section and in 2014 its incidence reached 26.1% according to the Institute of Health Information and Statistics of the Czech Republic (IHIS). The frequency of CS maternal history has been continuously rising since 2005.

Attention-deficit/hyperactivity disorder (ADHD) is the most common neurobehavioral disorder in children. ADHD is characterized by combination of symptoms including inattention, impulsivity and hyperactivity[3]. It can profoundly affect the academic achievement, school activities, well-being, and social interactions of children[4]. The incidence of the disease is increasing. The worldwide prevalence of ADHD is estimated to be about 7.2%[5]. ADHD may be highly heritable, but specific genetic factors were not established so far[3,5,6]. There is an evidence that environmental factors may be important for the development of ADHD[7]. Perinatal factors that increase the risk of ADHD are premature birth, maternal hypothyroidism, smoking during pregnancy, prenatal exposure to alcohol and cigarettes[8-11]. Diagnosis of ADHD could be established according to the criteria from the Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association[12,13] or based on The International Classification of Diseases 10th edition (ICD-10), published by the World Health Organization (WHO)[14].

According to Curran, Khashan, Dalman, Kenny, Cryan, Dinan[15] CS may affect psychological development through changes in microbiota or stress response and birth by CS can be associated with a small increased risk of ADHD[15]. On the contrary, there is also evidence of no association between mode of delivery and the risk of developing ADHD.[16] Systematic review done by Curran, O'Neill, Cryan, Kenny, Dinan, Khashan[17] indicated that delivery by CS is associated with an increased odds of autism spectrum disorder. However, the association between CS and "ADHD needs to be investigated further due to lack of adjusted estimates"[17].

A search of the JBI Database of Systematic Reviews and Implementation Reports, the Cochrane Library, Epistemonikos, Cinahl, Pubmed and PROSPERO database for systematic reviews was undertaken but in the current literature, there is no systematic review or protocol of the systematic review answering the question if the mode of delivery has influence the risk of ADHD development.

Aims

Review objective is to synthetize the best available evidence regarding the epidemiological association between the mode of delivery (caesarean section versus vaginal delivery) as exposure and ADHD as the outcome.

Methods

The protocol was developed according to the PRISMA-P statement[18] and he Joanna Briggs Institute (JBI) methodology for systematic reviews of etiology and risk[19]. It has been enrolled with the PROSPERO prospective register of systematic reviews.

Table 1: Inclusion criteria

POPULATION	Children Subgroup comparison for different children´s conditions such as birth hypoxia, hypoxic-ischemic encephalopathy, congenital malformations of the central nervous system. Subgroup analysis for children after preterm, in term and post term delivery.

EXPOSURE	Caesarean section compared to vaginal delivery Subgroup comparison for caesarean section: emergency and elective caesarean section Subgroup comparison for vaginal delivery: head fetal presentation, other fetal presentations (breech, etc.), instrumental vaginal delivery (VEX, Forceps), induced labor.
OUTCOME	Presence (or absence) of Attention Deficit-Hyperactivity Disorder (ADHD)
STUDY DESIGN	Analytical epidemiological study designs including prospective and retrospective cohort studies, case-control studies and analytical cross-sectional studies published in all languages and without date limitations.

Search Strategy

The search strategy will aim to find both published and unpublished studies. A three-step search strategy will be utilized in this review. An initial limited search of MEDLINE, CINAHL and EMBASE will be undertaken followed by analysis of the text words contained in the title and abstract, and of the index terms used to describe article. A second search using all identified keywords and index terms will then be undertaken across all included databases (see Table 2). Third, the reference list of all identified reports and articles will be searched for additional studies.

Table 2: Search strategy

Databases	Ovid MEDLINE(R) 1946 to current, CINAHL® Plus with Full Text 1935 to current, Embase (1974 to current), Web of Science, Nursing Ovid, Scopus, PsycINFO, Tripdatabase.
Journals	Int J Occup Med Environ Health, Pediatrics, J Am Acad Child Adolesc Psychiatry, J Autism Dev Disord
Grey literature	Cos Conference Papers Index, Grey Literature Report, Mednar, dissertation theses (ProQuest), Informit Health databases, www.ADHD.dk (The Danish ADHD Society), www.adhdnorge.no (The Norwegian ADHD Society), www.attention-riks.se (The Swedish ADHD Society), www.adhdeuroe.net (ADHD Europe), www.psych.org (The American Psychiatric Association)

Study selection

Following the search, two reviewers (JK and KJ) will independently screen and select studies for possible inclusion in the study in two phases using EndNote. In the first phase, titles and abstracts will be analysed. In the second phase, all possible relevant full texts will be analysed. Any disagreements will be resolved by discussion and a third reviewer (MK).

Assessment of Methodological Quality

Papers selected for retrieval will be assessed by two independent reviewers (JK and KJ) for methodological quality prior to inclusion in the review, using standardised critical appraisal instruments developed by JBI within the System for the Unified Management, Assessment and Review of Information (JBI SUMARI).[19] Any disagreements will be resolved by discussion and a third reviewer (MK).

Data extraction

Data will be extracted from papers included in the review using the standardized data extraction instrument JBI SUMARI by two independent reviewers.[19] The extracted data will include specific details about the exposure of interest including different exposure categories, populations, study methods and outcomes or dependent variables of significance to the review question and specific objectives.

Data synthesis

Papers will, where possible be pooled in statistical meta-analysis using JBI SUMARI. Effect sizes will be expressed as either odds ratios or relative risk (for dichotomous data) and their 95% confidence intervals will be calculated for analysis. Heterogeneity will be assessed statistically using the standard chi-squared and I squared tests. Subgroup analyses will be conducted where there is sufficient data to investigate (see Table 1). Sensitivity analyses will be conducted to test decisions made regarding meta-analysis model. Where statistical pooling is not possible the findings will be presented in a narrative form including tables and figures to aid in data presentation where appropriate.

Assessing Confidence

A 'summary of findings' table will be created using GRADEPro GDT software. The GRADE approach for grading the quality of evidence will be followed[20]. The 'Summary of Findings' table will present the following information where appropriate: absolute risks for treatment and control, estimates of relative risk, and a ranking of the quality of the evidence based on study limitations (risk of bias), indirectness, inconsistency, imprecision and publication bias.

Conflict of interest

There are no conflicts of interest.

Acknowledgements

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Use of epidemiological analyses in development of Colorectal Cancer Clinical Practice Guideline in the Czech Republic

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Abstract

Colorectal cancer (CRC) is the third most commonly diagnosed cancer and the fourth most common cause of cancer death worldwide. Crucial in CRC as well as for other effective diagnostic and treatment is the knowledge translation and implementation of the current best available evidence into clinical practice and public health. Clinical practice guidelines are one of the useful tools to be able to improve diagnostic and increase survival rate.

The epidemiological analysis was performed based on the data of Czech National Cancer Registry (CNCR) from 1977 to 2017. We have analysed an incidence, prevalence, mortality and primary treatment of CRC in the Czech Republic.

The incidence of CRC most significantly increased from 1982 to 2002 and is higher in men compared to women in the data of National Health Information System in the Czech Republic. Majority of the patients with CRC were diagnosed in early stages and women were diagnosed in slightly higher age than men. Since 2006 until 2016, there was reported increase in performing of surgical therapy in primary treatment of early CRC. Generally, relative survival in time increased in reported patients with CRC.

This analysis reported significant changes in incidence of CRC last 40 years, in diagnostic and primary therapy in early stages of CRC last 12 years. In the Czech Republic, there is currently according to this analysis, almost completed the first evidence-based Clinical Practice guideline focused on diagnostic and therapy of early CRC based on GRADE methodology.

Keywords

Colorectal cancer, diagnoses, treatment, epidemiology, death survival, clinical practice guidelines.

Background

Colorectal cancer (CRC) is the third most commonly diagnosed cancer and the fourth most common cause of cancer death worldwide[1]. According to Ferlay, Soerjomataram, Dikshit, Eser, Mathers, Rebelo [2], in Europe there were in 2012 an estimated 447 000 new cases of CRC with 215 000 deaths, and worldwide there were 1.4 million new cases and 694 000 deaths[2]. According to Eurostat [3], there were 154 000 deaths recorded in 2015 because of CRC in the Europe Union member states (EU), which corresponds to 11.7% of all deaths from cancer and 3.0% of the total number of deaths from any cause. In total, the standardised death rate for CRC in EU was 30.4 per 100 000 inhabitants. There was also observed some gender difference in the standardised death rates for CRC across the EU: for men the rate was 75% higher than for women[3]. Crucial in CRC as well as for other effective diagnostic and treatment is the knowledge translation and implementation of the current best available evidence into clinical practice and public health. Clinical practice guidelines are one of the useful tools to be able to improve diagnostic and increase survival rate[4]. There are several

evidence-based clinical practice guidelines focused on CRC diagnosis and treatment, developed according to standardised methodology[5-7].

Aims

Aim of this paper is to analyse epidemiology of prevalence, incidence and mortality of colorectal cancer to inform development of clinical practice guideline in the Czech Republic in this area.

Methods

The epidemiological analysis was performed based on the data managed by Institute of Health Information and Statistics of the Czech Republic (IHIS CR) which were collected within Czech National Cancer Registry (CNCR) from 1977 to 2017. CNCR is for registration of oncological diseases cases and periodic monitoring of their further evolution. CNCR includes data about timely diagnostics and therapy of neoplasms and precancerosis conditions, monitoring of their prevalence, causal factors and social consequences[8]. Within this study, we have also analysed how often is chosen surgical treatment of CRC, specifically a local cancer resection, a removing an entire organ along with the cancer and radical surgery with regional lymphadenectomy; and how often are used other cancer treatment of CRC including radiotherapy and chemotherapy. We calculated also relative survival which is defined as the ratio of an overall survival and an expected survival. The expected survival means mortality rate in general population which corresponds with observed group of patients by age, gender and year of diagnosis. Due to calculation of relative survival, we are able to filter out the influence of other comorbidities on mortality rate.

Patients with CRC, both women and men, were identified by following criteria:

- Incidence, prevalence and mortality in cancer diagnosis.
- Diagnosis according to ICD-10-CM Codes (morphology, topography, functional activity, grade)
- Stage of solid tumours according to TMN Classification of Malignant Tumours (clinical TMN, postoperative TMN, stage of disease).
- Primary treatment – surgery, chemotherapy, radiation therapy, hormone therapy and other treatment.
- Healthcare facilities responsible for diagnosis and treatment.

Results

The epidemiological analysis showed that generally the incidence of CRC most significantly increased from 1982 to 2002. Incidence of CRC is higher in men compared to women in ration 1.5/1 (2012-2016, there were 92.1 diagnosed men and 59.7 diagnosed women per 100 000 inhabitants). Mortality rate was also higher in men compared to women 1.5/1 (2012-2016, there were 44.0 deaths of men and 28.8 deaths women per 100 000 according to NOR) (see Figure 1). In population of men was also higher prevalence of CRC compared to women 1.3/1 (there were 628 living men with CRC and 468 living women per 100 000).

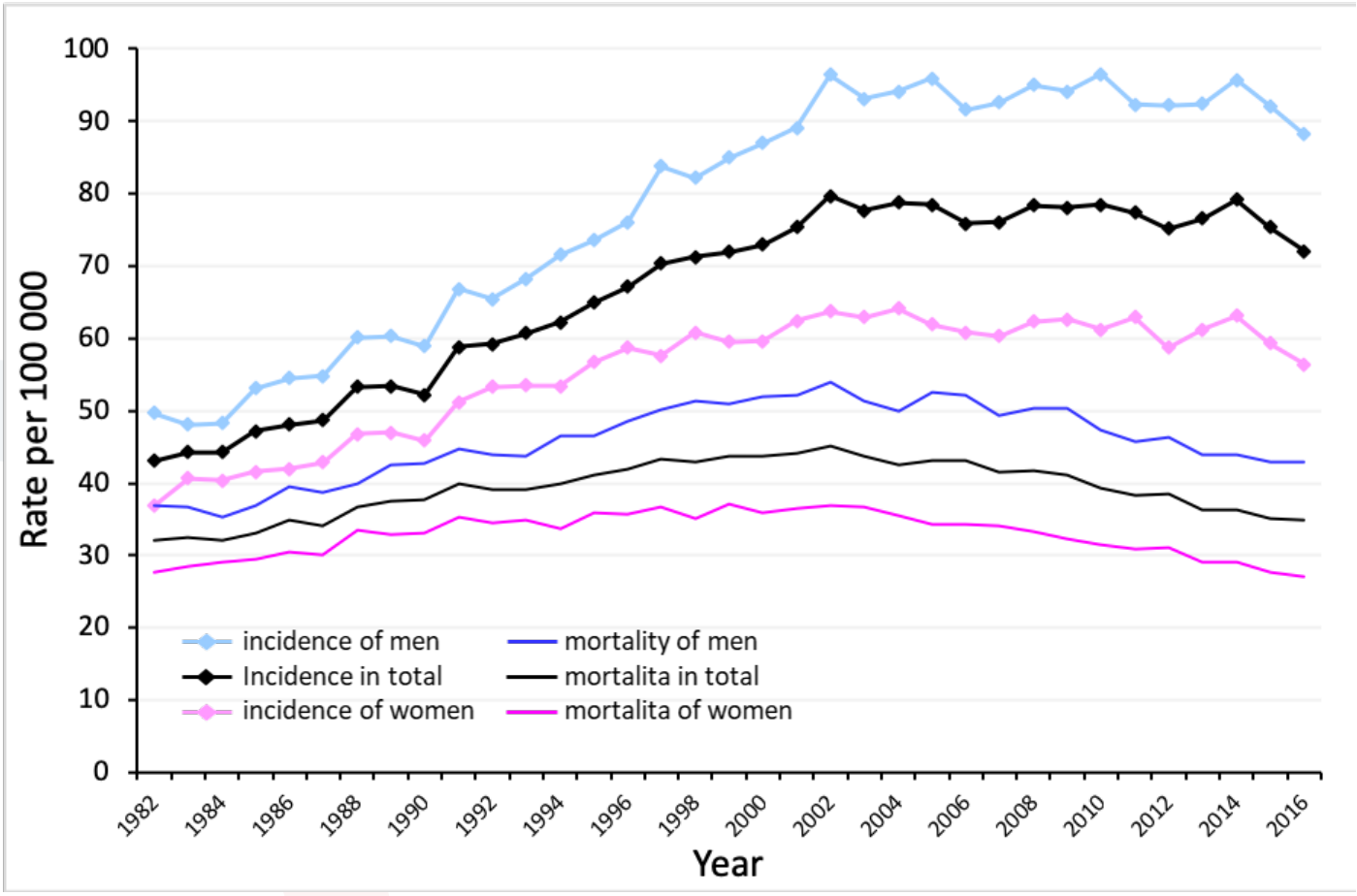

Figure 1: Incidence and Mortality rate of CRC according to gender - the Czech Republic (2012-2016)
Source: Czech National Cancer Registry and IHIS CR

Majority of patients with CRC was diagnosed in early stages on the other hand there is still high number of people who were diagnosed third and fourth stage. From total 57 730 living patients (31 12. 2016), there were diagnosed in the first stage 35 %, in the second stage 30.7 %, in the third stage 23.2 % and 5.5 % in the fourth stage (see Figure 2). In 5.6 % of patients with CRC was not known the stage. We do expect that the early stage diagnostic should increase with well-defined clinical guidelines for prevention and diagnostic of CRC.

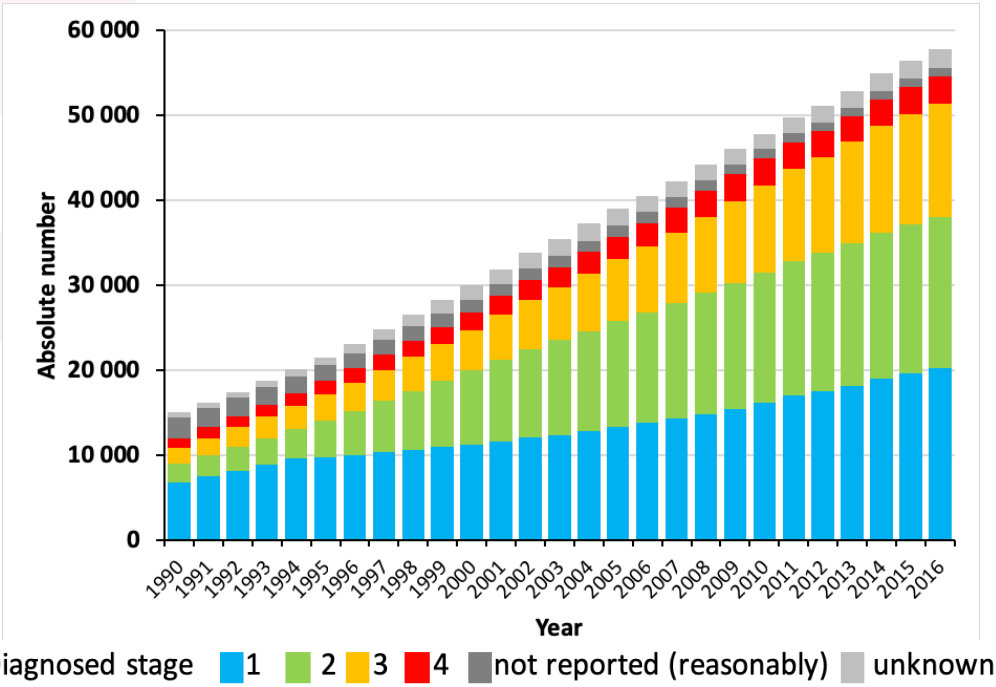

Figure 2: Prevalence rate of CRC according to stage in the Czech Republic
Source: Czech National Cancer Registry and IHIS CR

A median age of diagnosed men with CRC was 69 years from 2012 to 2016. 50 % of these men were in range 62-75 years. The median age of diagnosed women was 71 and 50 % of them was in range of 63-79 years. So, in age 60 years were in total 17.9% diagnosed patients regardless the gender and in age 75 years were diagnosed in total 32.1% patients (27.9% men and 38.4% women).

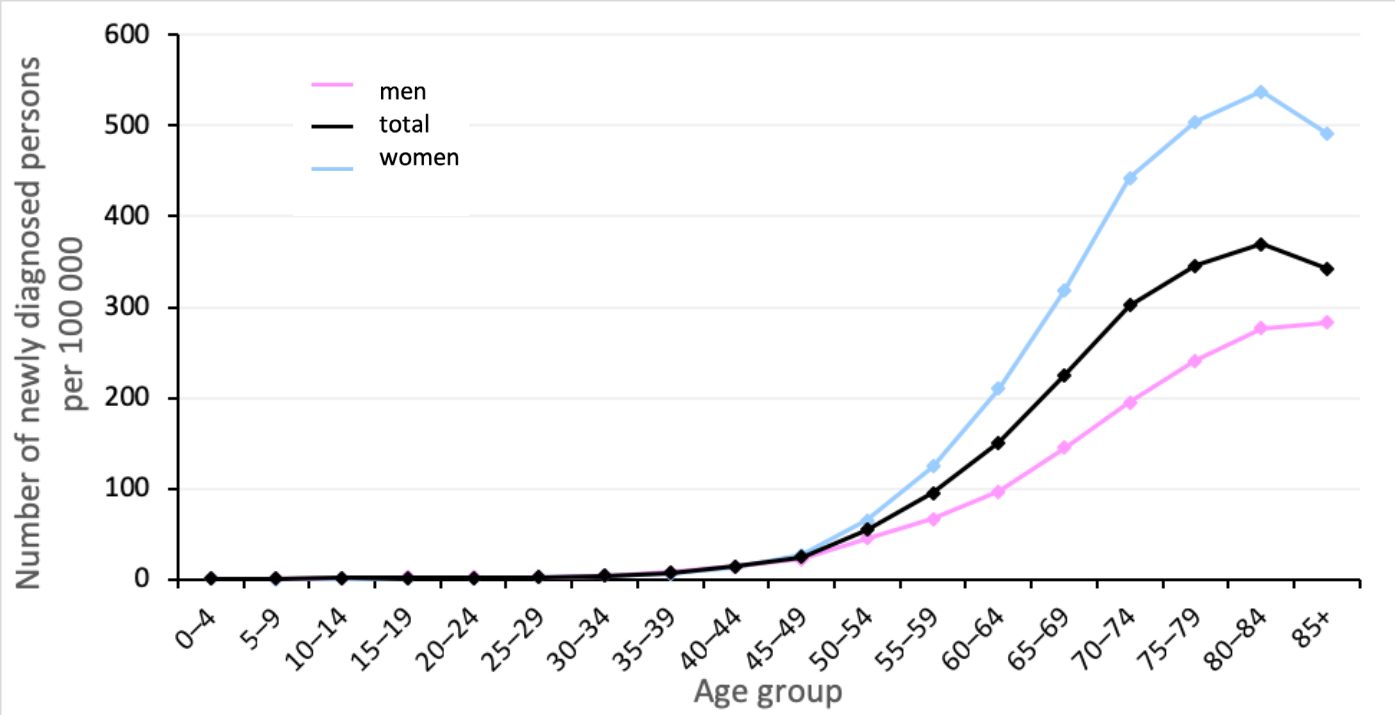

Figure 3: Incidence of newly diagnosed patients with CRC according to age in the Czech Rep.
Source: Czech National Cancer Registry and IHIS CR

There are various type surgical and other cancer treatments in patients with diagnosed CRC. From 2006 until 2016, there was observed significant increase in performing of the local cancer resection in patients diagnosed with 1st stage of CRC compared to radiation therapy (also known as radiotherapy), chemotherapy and also other surgical treatment (see Figure 4). In patients diagnosed with 2nd stage of CRC, there was reported significant increase in performing the radical surgery with regional lymphadenectomy compared to radiation therapy, chemotherapy and also other surgical treatment (see Table 4). In case of radiation therapy and chemotherapy were observed decreased trend of indication in patients in 2nd stage of CRC.

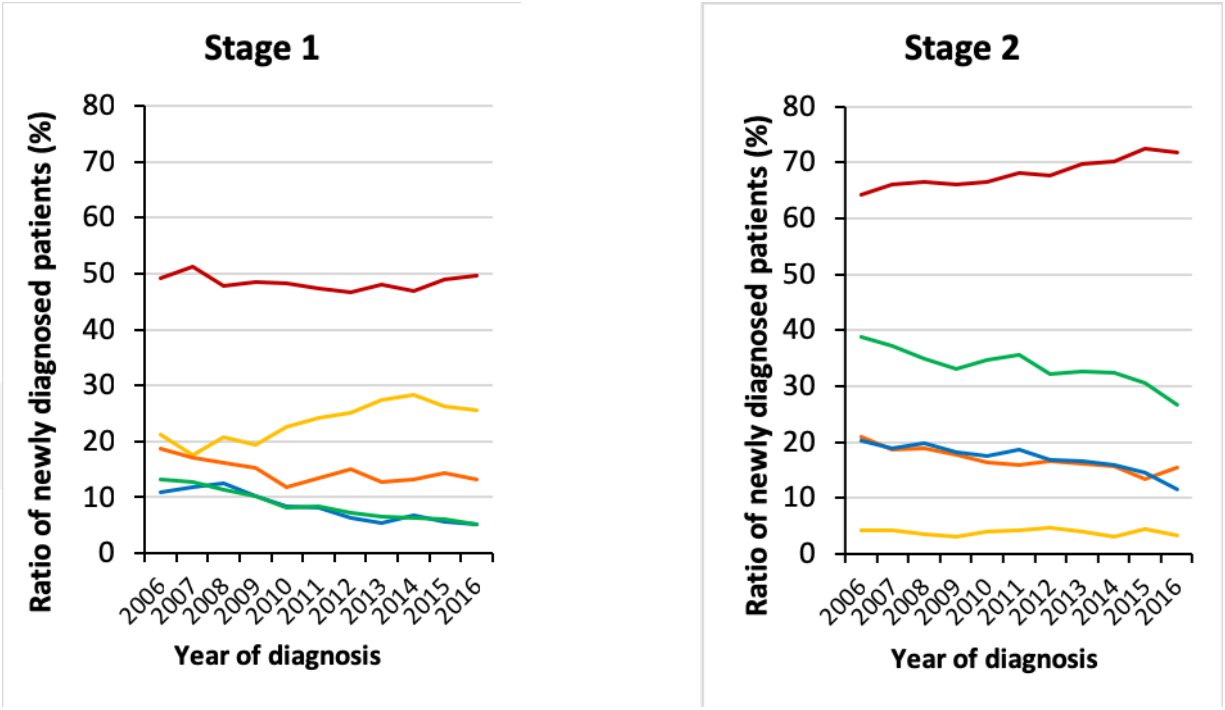

Figure 4: Analysis of primary treatment in patients with early CRC (2006-2016)
Source: Czech National Cancer Registry and IHIS CR

Generally, in patients with CRC in 1st – 3rd stage treated by any type of cancer therapy, there was observed continual increase in relative survival in time (see table 5). Numbers of 5 years survival were standardized according to age.

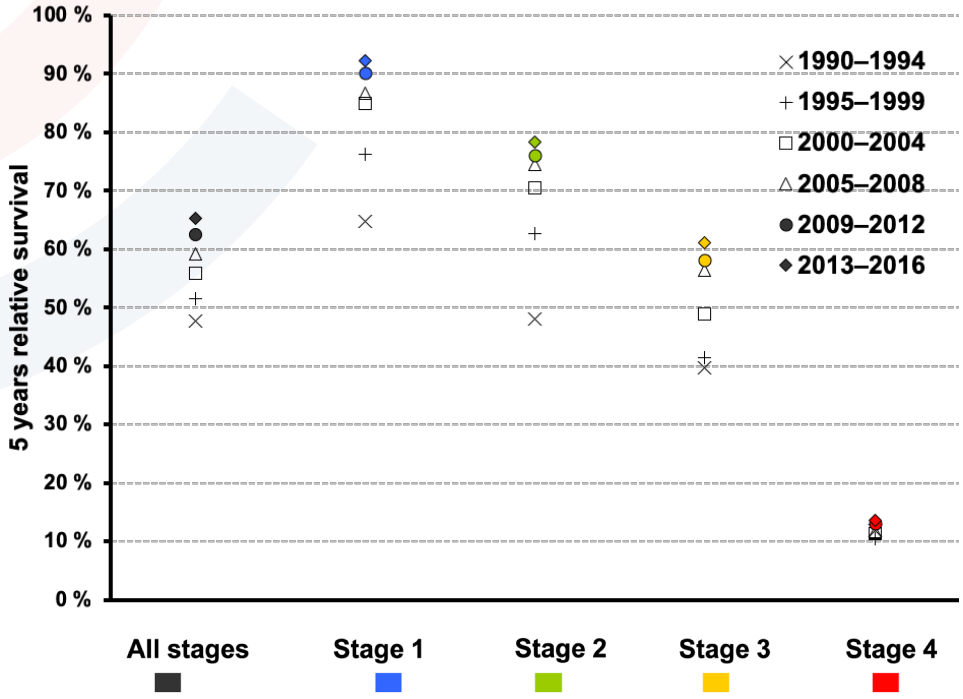

Figure 5: The 5-year relative survival in patients in patients with CRC after treatment
Source: Czech National Cancer Registry and IHIS CR

Conclusion

The incidence of CRC most significantly increased from 1982 to 2002 and is higher in men compared to women based on the data of NHIS CR. Majority of the patients with CRC were diagnosed in early stages and women are diagnosed in slightly higher age than men. Since 2006 until 2016, there was reported increase in performing of surgical therapy in primary treatment of early CRC. Generally, relative survival in time increased in treated patients with CRC. This analysis reported significant changes in incidence of CRC last 40 years, in diagnostic and primary therapy in early stages of CRC last 12 years. In the Czech Republic, there is currently according to this analysis, almost completed the first evidence-based Clinical Practice guideline focused on diagnostic and therapy of early CRC based on GRADE methodology.

Conflict of interest

There is no direct conflict of interest of any authors. As indirect conflict of interest regarding this publication could be considered fact that dr. Klugarová is a member of the Scientific committee of the symposium.

Acknowledgements

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Epidemiological analyses to inform Stroke Clinical Practice Guideline Development

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Abstract

Stroke is one of the leading causes of mortality and the leading cause of functional impairment and cognitive deficits worldwide. It is important to base clinical practice guidelines development on robust statistical and epidemiological data and analyse them during whole process of development and implementation. The aim of this short communication is to analyse epidemiology of prevalence and incidence of ischaemic stroke, its main causes, brain imaging using MRI, recanalization therapies, secondary prevention with antiplatelet and anticoagulants, mortality data and to inform development of clinical practice guideline on stroke in the Czech Republic. We have used Institute of Health Information and Statistics of the Czech Republic (IHIS CR) data collected through National Health Information System and National Health Registers of the Czech Republic from 2015 to 2017 for analysis. Main diagnosis analysed was I63 (cerebral infarction) and of the following secondary diagnosis: I48 (atrial fibrillation and flutter), I35.9 (non-specified aortic valve disease), Q21.1 (atrial septal defect), or I33.0 (acute and subacute endocarditis). We have also analysed use of brain imaging with MRI , recanalization treatment using intravenous thrombolysis and mechanical thrombectomy, stroke secondary prevention with antiplatelet drugs and anticoagulation as well as hospital admissions and mortality. In total 159.344 patients were diagnosed with an ischaemic stroke from 2015 to 2017. Average prevalence of ischaemic stroke in the Czech Republic is 54.9 patients per 100 000. 98% of patients with ischaemic stroke had atrial fibrillation or flutter as a secondary diagnosis. 57.2% of patients with a diagnosis of ischaemic stroke were female and 42.8% male. 22.2% of patients with stroke received intravenous thrombolysis or mechanical thrombectomy in the Czech Republic in 2017. 82.8% of patients with ischaemic stroke had prescribed either antiplatelets or anticoagulants in 2017. 44.9% with a diagnosis of ischaemic stroke died from 2015 to 2017.

Keywords

Ischaemic stroke, atrial fibrillation, flutter, aortic valve disease, atrial septal defect, endocarditis, intravenous thrombolysis, mechanical thrombectomy, secondary prevention, epidemiology, mortality, clinical practice guidelines

Background

Despite a significant transformation of management of ischaemic stroke, it remains one of the leading causes of death, disability, functional impairment and cognitive deficits[1]. With the advent of intravenous thrombolysis and mechanical thrombectomy stroke is not an untreatable disease, mostly occurring in older people any more. 85 % of strokes are ischaemic strokes caused by a clot and 15 % are intracerebral haemorrhage[2]. Emergency stroke care is as important and efficient as primary and secondary stroke prevention. 90 % of strokes are caused by ten potentially modifiable risk factors[3]. There have been many stroke prevention interventions e.g. smoking cessation, regular physical activity, reduced salt intake, antithrombotic treatment, statins and antihypertensives[4]. All strategies require a wide collaboration between different health care sectors, public and governments. Crucial in stroke care is the knowledge translation and implementation of the current

best available evidence into clinical practice and public health. Clinical practice guidelines are one of the useful tools to achieve it[5].

Aims

The aim of this short communication is to analyse epidemiology of prevalence and incidence of ischaemic stroke, its main causes, brain imaging using MRI, recanalization therapies, secondary prevention with antiplatelet and anticoagulants, mortality data and to inform development of clinical practice guideline on stroke in the Czech Republic.

Methods

The analysis has been developed using Institute of Health Information and Statistics of the Czech Republic (IHIS CR) data collected through National Health Information System and National Health Registers of the Czech Republic. As a primary source we used National Register of Reimbursed Health Services (NRRHS) collecting data from health care insurance companies about both in-patient and out-patient settings. Comprehensive data on accounted diagnoses, procedures and treatments which are currently available from 2015 to 2017 are included. The data were linked with information from Death certificates (available data until 2017).

Data for analysis were identified by following criteria:

- Main diagnosis I63 (cerebral infarction) and of following secondary diagnosis: I48 (atrial fibrillation and flutter), I35.9 (non-specified aortic valve disease), Q21.1 (atrial septal defect), or I33.0 (acute and subacute endocarditis).
- Patients who have had at least one entry with above mentioned/listed diagnosis from 2015 to 2017.
- Patients with ischaemic stroke and MRI head performed in the same year like a diagnosis of stroke was entered into the registries.
- Patients with ischaemic stroke who underwent intravenous thrombolysis or mechanical thrombectomy and a specific ATC group B01AD02 medication or intervention (89321, 90952) was entered into the registries.
- Patients with ischaemic stroke and of following medication were prescribed and reimbursed: Anopyrin (B01AC06), Trombex (B01AC04), Warfarin (B01AA03), Xarelto (B01AF01), Pradaxa (B01AE07) or Eliquis (B01AF02).

Results/Discussion

There were 159.344 patients with a diagnosis of a cerebral infarction identified in the registries from 2015 to 2017. 16.946 patients with diagnosis I63 as a primary diagnosis and one of the following secondary diagnoses (I48, I35.9, Q21.1 or I33.0) were identified in the NRPHS from 2015 to 2017. 98% of patients had atrial fibrillation or flutter as a secondary diagnosis, 1.7% atrial septal defect, 0.3% acute and subacute endocarditis or non-specified aortic valve disease. A majority of patient had been treated in their regional hospitals according to their permanent residence address, 59.2% in hospitals and 16.2% in university hospitals. Average prevalence of ischaemic stroke in the Czech Republic is 54.9 patients per 100 000, the highest prevalence was in Moravskoslezsky region (70.7 patient per 100 000). 57.2% of patients with a diagnosis of ischaemic stroke were female and 42.8% male. Age at a stroke diagnoses is 5.6 years lower in male than in female and median age is 7 years lower in male than in female (76, and 83 year respectively) Figure 1. 564 patients with a diagnosis of ischaemic stroke underwent brain MRI imaging in the same year, 9.7% of patients with ischaemic stroke in 2017. Brain MRI imaging was performed in younger patients. Average length of stay in acute hospital settings was 12.7 with median 10 days. 1278 patients with ischaemic stroke received intravenous thrombolysis or mechanical thrombectomy, 22.2% of patients with stroke in 2017. 66.7% patients received intravenous thrombolysis only,

20.4% of patients had both intravenous thrombolysis and mechanical thrombectomy, and 12.8% of patients underwent mechanical thrombectomy only (figure 2). 4814 (82.8% in 2017) of patients with ischaemic stroke had prescribed either antiplatelets or anticoagulants in the same year. 49.6% had prescribed anticoagulant only, 28.7% antiplatelet only, and 21.7% dual therapy with antiplatelet and anticoagulant (which has been not appliaed in the same time)t. Majority of patients had been prescribed Anopyrin (42.5%) and Warfarin (55.2%), Clopidogrel (16.8%), Dabigatran (Pradaxa®, 10.2%), Apixaban (Eliquis®, 9.9%), and Rivaroxaban (Xarelto®, 6.3%) in 2017. The most common peroral treatment combination was Warfarin and Anopyrin (10.6%). 79.4% patients with ischaemic stroke were treated as in-patients, for 77.6% of them had claimed only an acute hospital stay, for 12.7% patients acute and non-acute hospital stay, and for 5.4% non-acute hospital stay only, and 4.3% had not claimed any hospital stay. Almost half of the patients (44.9%) with a diagnosis of ischaemic stroke died from 2015 to 2017. 2845 patients diagnosed with ischaemic stroke died in 2017, 60.7% females and 39.3% males, average age of death was 4.8 years higher in females. The most common reported cause of death was a cerebral infarction and ischaemic heart disease (20%). The most common place of death was hospital settings (inpatient health care facility).

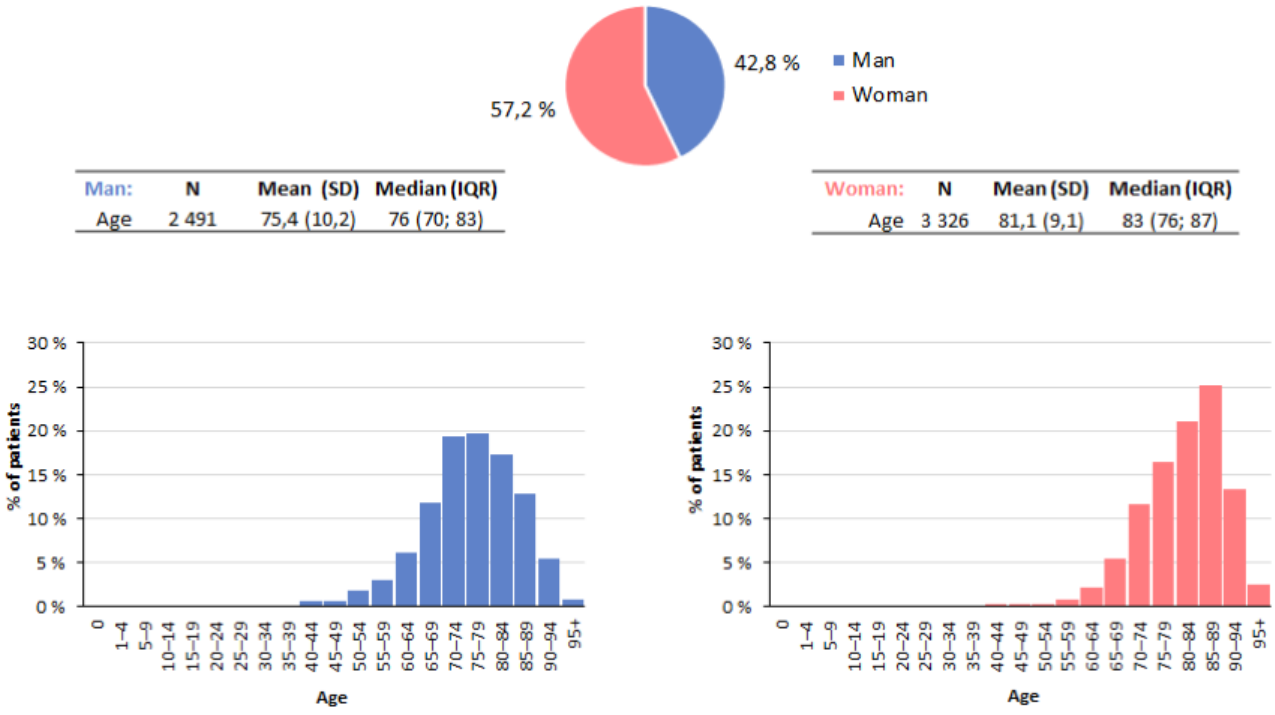

Figure 1: Demographic profile of patients with diagnosed ischemic stroke

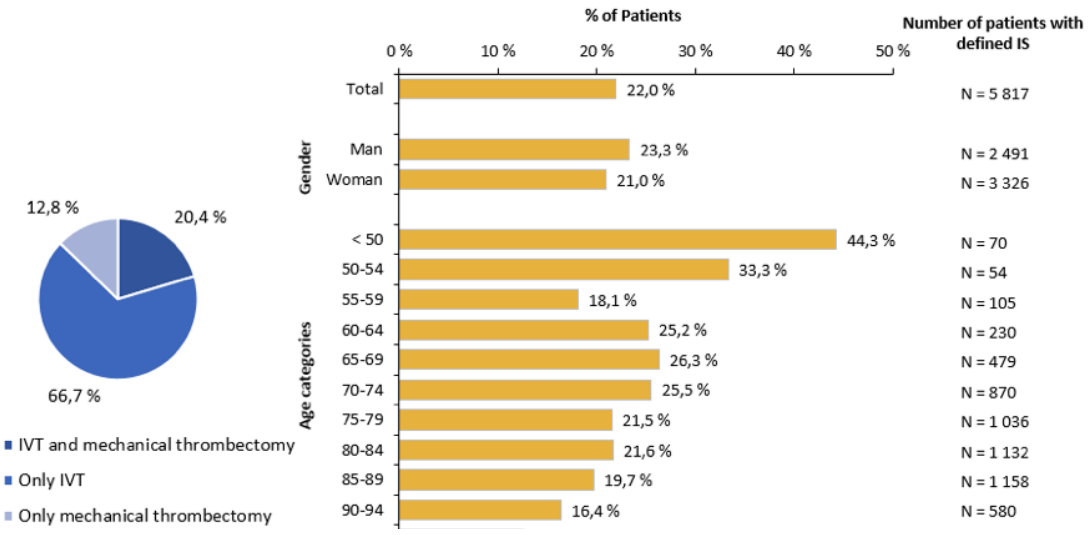

Figure 2: Patients with defined ischemic stroke and intravenous thrombolysis (IVT)/mechanical thrombectomy

Conclusion

In total 159.344 patients were diagnosed and reported in national registries with an ischaemic stroke from 2015 to 2017. Average prevalence of ischaemic stroke in the Czech Republic is 54.9 patients per 100 000. Majority (98%) of patients with ischaemic stroke had atrial fibrillation or flutter as a secondary diagnosis. 57.2% of patients with a diagnosis of ischaemic stroke were female and 42.8% male. 22.2% of patients with stroke received intravenous thrombolysis or mechanical thrombectomy in the Czech Republic in 2017. In 82.8% of patients with ischaemic stroke had been prescribed either antiplatelets or anticoagulants in 2017. Almost half (44.9%) with a diagnosis of ischaemic stroke died from 2015 to 2017.

Conflict of interest

There is no direct conflict of interest of any authors. As indirect conflict of interest regarding this publication could be considered fact that dr. Klugar is President of the symposium and Chair of European Joanna Briggs Collaboration.

Acknowledgements

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The evidence for infection prevention and control – problems of design and implementation

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Abstract

This paper discusses the methodological and socio-adaptive issues that impact on the development and implementation of evidence-based guidelines for the prevention and control of healthcare associated infections.

Keywords

Healthcare associated infection, infection prevention and control, implementation , evidence based guidelines

Background

The prevention of healthcare associated infection (HAI) is a key patient safety issue and is the focus of global efforts to minimise the harm they cause and the increased human and societal cost that they generate for communities and healthcare providers. The use of interventions to prevent and control HAI and preserve the effect of antimicrobial therapy requires that infection prevention and control (IPC) interventions be evidence-based and implementable within the clinical context and resources available. However, the complex nature of HAI creates research design difficulties that cannot always be overcome.

Aims

This presentation aims to consider the evidence underpinning key guidance for the prevention of infections in acute hospitals and highlight some of the problems of implementation that exist.

Methods

The evidence underpinning the Epic[3] Evidence based Guidelines for the Prevention of Healthcare Associated Infection[1] will be used to illustrate the methodological and implementation issues and the scientific literature explored to highlight the issues that need to be addressed by researchers and those seeking to improve practice and patient outcomes and experience.

Discussion

The proliferation of systematic reviews, meta-analyses, guidelines and other evidence-based recommendations are intended to assist clinicians and policy-makers to decide which infection prevention practices are effective and should be implemented[2-6]. However, the availability guidelines does not necessarily, and in fact rarely, guarantees that they will be adopted and implemented. Sometimes the perception of staff that a recommendation is underpinned by weak evidence has an impact on the pace and sustainability of change.

Conclusion

There is a need to improve the design and quality of infection prevention and control research aligned with a contextual understanding that results in guideline recommendations that can be incorporated into practice.

Conflict of interest

None

Acknowledgements

None

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Slipping through the cracks: unilateral neglect assessment

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Abstract

Patients with stroke commonly suffer from unilateral spatial neglect, which often prolongs their rehabilitation stay. Unilateral neglect should be addressed by multidisciplinary rehabilitation teams that include nurses; e.g., nurses can engage in unilateral neglect screening. However, unilateral neglect is underrecognized and underdocumented in clinical practice.

The aim of this pilot study was to determine the prevalence of unilateral neglect in patients with acute stroke based on two paper-and-pencil tasks. Part of the aim was to assess the feasibility of such tests in nursing clinical practice.

Thirteen patients with stroke (10 men) completed two paper-and-pencil tasks: the line bisection test and the line cancellation test. Both tasks were administered and the obtained results were interpreted based on a procedure described in the literature; the obtained scores were dichotomized (normal vs. abnormal) according to the recommended cut-off values (line cancellation test: 0.008; line bisection test: 2.533).

The line cancellation test was abnormal in two patients; both obtained a NS - 0.008 (= 0.139; 0.635). As for the line bisection test, all patients obtained a normal result (their score was - 2.533). The results suggest that 0–15.4% of the patients could have UN; however, the results of the two tests differed.

The study demonstrated that unilateral neglect screening using selected paper-and-pencil tests is feasible in nursing clinical practice. However, a combination of tests may be necessary, possibly due to the low sensitivity of the individual tests. It should be determined whether an implementation of a multidisciplinary evidence-based unilateral neglect screening program targeting patients with stroke could be beneficial.

Keywords

Nursing, patient assessment, rehabilitation, stroke, unilateral neglect

Background

Patients with stroke commonly suffer from unilateral neglect (UN), i.e. an inability to respond to stimuli on the side of the body or space contralateral to the lesioned hemisphere[1]. UN occurs in 12–100% of patients with stroke[2-3]. UN often prolongs the patients' rehabilitation stay[4-5].

UN can be assessed using various methods, e.g. paper-and-pencil tasks, and observations of patients' ability to engage in activities of daily living[1-3]. There is no single gold-standard assessment method; some experts actually believe that a battery of tests should be used to comprehensively assess patients for the presence of UN[1,6]. According to Guidelines for adult stroke rehabilitation and recovery endorsed by the American Academy of Physical Medicine and Rehabilitation and the American Society of Neurorehabilitation, it may be helpful to screen patients for UN and to conduct a formal neuropsychological examination of those patients whose screening result is abnormal[5].

UN should be addressed by multidisciplinary rehabilitation teams that include nurses[6-7]. Nurses can engage in UN screening[8]. In fact, for over three decades, UN has been a nursing diagnosis recognized by NANDA International (NANDA-I), formerly known as the North American Nursing

Diagnosis Association[7-8]. Furthermore, nurses should be able to address various problems that can be linked to UN. For example, patients with UN may be prone to falls[6]. However, according to some experts, UN is underrecognized in clinical practice[9].

Aims

The aim of this pilot study was to determine the prevalence of UN in patients with acute stroke based on two paper-and-pencil tasks supported by the NANDA-I. Part of the aim was to assess the feasibility of such tests in nursing clinical practice.

Methods

The pilot study was conducted in a neurological department of a regional Czech hospital in April 2017. The patients (n = 13; 10 men; average age 66.9 ± 14.7) completed two paper-and-pencil tasks: the line bisection (LB) test and the line cancellation (LC) test. Both tasks were administered by a neuroscience nurse, and the obtained results were interpreted based on Lee et al.'s procedure[2]. In the LC test, patients were asked to mark 40 black lines evenly dispersed on a sheet of paper. The proportion of unmarked lines was used to calculate the severity index, and a comparison of the sum of marked lines on the right side of the paper and on its left side yielded the laterality index. Next, the product of the severity index and the laterality index was multiplied by 10 to yield the normalization score (NS).[2] In the LB test, patients were asked to find a midpoint of a line, and a deviation from the true midpoint was determined. Next, raw scores were transformed to a 10-point scale, and a deviation score (DS) was obtained[2]. The LB test was repeated five times, and the average deviation score (DS) was calculated. The results of both tests (their absolute values) were dichotomized (normal vs. abnormal) based on the recommended cut-off values (LC test 0.008; LB test 2.533)[2].

Results/Discussion

The LC test was abnormal in two patients; both obtained a NS > 0.008 (= 0.139; 0.635). As for the LB test, all patients obtained a normal result (their score was < 2.533). Specifically, the absolute value of their average DS score ranged from 0.20 to 1.67. The worst performance on the LC test (NS score = 0.635 in patient 9) and on the LB test (average DS score = 1.67 in patient 8) are depicted in Figure 1 and Figure 2, respectively. The results suggest that 0–15.4% of the patients could have UN; however, the results of the two tests differed. Lee et al.'s sample had a higher prevalence of UN (68.8%) based on a battery of six tests[2]. While the present study suggests that paper-and-pencil tests can be administered by nurses, it also supports the idea that using a combination of tests may be necessary, possibly due to the low sensitivity of some of the individual tests (it ranges from 43.6–90.9%)[2].

Conclusion

The study demonstrated that UN screening using selected tests is feasible in nursing clinical practice. However, a combination of tests may be necessary. It should be determined whether an implementation of a multidisciplinary evidence-based UN screening program targeting patients with stroke could be beneficial. This could in turn facilitate the involvement of patients with UN in rehabilitation programs that aim to focus on dealing with this underrecognized impairment.

Conflict of interest

There is no conflict of interest.

Acknowledgements

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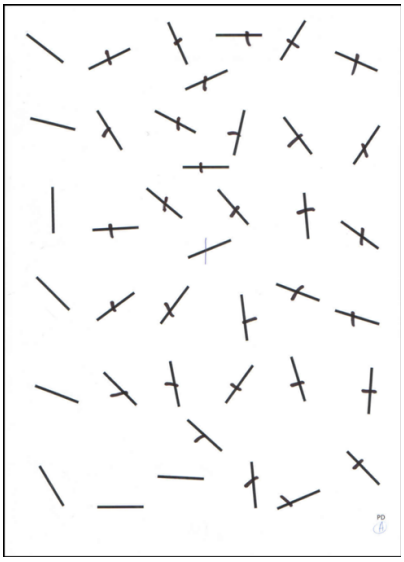

Figure 3: Line cancellation test result (patient 9)

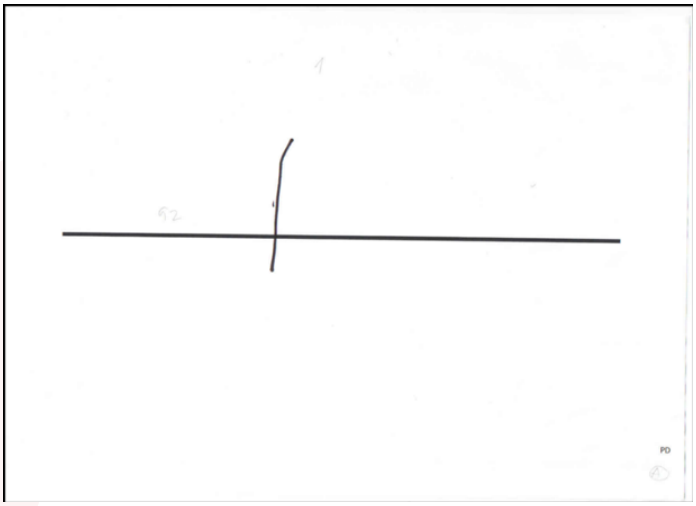

Figure 4: Line bisection test result (patient 8)

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Pilot project: Evidence-Based methodology in education of future teachers

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Abstract

The field of study, Teaching of Vocational Subjects for Nursing Schools, the completion of which provides for obtaining teaching qualification at the master's level, belongs to the prestigious fields at the Faculty of Education, Palacký University Olomouc. In the academic year of 2018/19, the students of this field are involved in the pilot project introducing and teaching the Evidence-Based Practice methods. The concept is Based on the experience of the team The Czech Republic (Middle European) Centre for Evidence-Based Healthcare: A Joanna Briggs Institute Centre of Excellence. Objectives of this sort communication are:

1. To inform about the pilot implementation of Evidence-Based Practice methodology into selected subjects at Faculty of Education and
2. To inform about the initiate of working group for debate on establishing the Centre for Evidence-Based Education.

In order to implement the Evidence-Based Practice method into the training of non-physician health care professions, a brand new subject was created titled Evidence-Based Education and Healthcare, and at the same time, four syllabi of the currently taught subjects underwent innovation. The Faculty obtained a favourable opinion on the innovated curriculum from the National Accreditation Authority CR. In September 2018, a pilot EBP teaching of the topics with 95 students of full-time and part-time study was launched and the new separate subject will be first opened in the academic year of 2019/20.

The outputs of the project include: an adjusted content of the subjects the Scientific Components in the Health Education Curriculum and the Diploma Thesis Seminar, the new subject titled Evidence-Based Education and Healthcare, and the text of Conception for the Evidence-Based Education Centre establishment.

It is appropriate to implement comprehensive Evidence-Based Practice modules with several subjects into the study program curriculum. Current activities are the preparatory, motivational phase of potential development.

Keywords

CEBHC, Faculty of Education, Joanna Briggs Institute, Palacký University, Teacher

Background

The Teaching of Vocational Subjects for Nursing Schools (TVSNS) field of study at the Faculty of Education, Palacký University Olomouc (PdF UP) was first opened in the academic year of 1985/86. Previous education in non-physician health care professions was and still is the condition for enrolment for the studies. Currently, the groups of students of the two-year follow-up master studies include the bachelors of nursing, midwifery and paramedic professions. This is the only study program of this type in the Czech Republic. However, in the upcoming generation of teachers of the subjects at secondary schools and colleges focusing on health care, a corresponding space was not devoted to Evidence-Based Practice (EBP). Therefore a discussion has started at the

Department of Anthropology and Health Education, the guarantor of the TVSNS study program, on the modification of the current study plan.

The first Czech Evidence-Based Healthcare Centre commenced its operation in Olomouc in 2013. At the moment, it is called The Czech Republic (Middle European) Centre for Evidence-Based Healthcare: A Joanna Briggs Institute Centre of Excellence (CEBHC). Apart from the certified courses for creating systematic reviews, an implementation program, secondary research and a number of other activities, its team has erudition and competence to become the mentor of professionals directed at establishing an affiliated workplace.

Aims

1. Select the subjects suitable for implementation of the Evidence-Based methodology and innovate their content.
2. Create a syllabus of the new subject titled Evidence-Based Education and Healthcare.
3. Prepare the concept proposal for the establishment of the Evidence-Based Education Centre at Pdf UP.

Methods

The selection of suitable subjects was carried out on the basis of the strategy: one subject in each of the four semesters of the follow-up master's studies. The innovation thereof and the syllabus creation for the new subject of Evidence-Based Education and Healthcare were implemented applying the principles of the Joanna Briggs Institute methods[1, 2]. These include[3, 4]:

1. Evidence-Based Healthcare methodology and its application in the health care, educational practice and research,
2. structured search activity,
3. sorting of the searched sources by relevance to the question of inquiry,
4. categorisation of the searched studies according to the research design,
5. critical evaluation of studies,
6. Prisma-P Guideline and
7. specifications of the systematic review (SR) creation. Creation of the concept design for the establishment of the Evidence-Based Education Centre at Pdf UP was carried out based on the recommendations of the guarantor of the TVSNS study program, the co-founder of The Czech Republic (Middle European) Centre for Evidence-Based Healthcare: A Joanna Briggs Institute Centre of Excellence (CEBHC)[5, 6].

Results

Output of the pilot project is represented by the adjusted syllabus of the subject of Scientific Components in the curriculum of the health education 1 and 2 (two-semester teaching program in total amount of 52 lessons) and the subject of Diploma Thesis Seminar 1 and 2 (two-semester teaching program in total amount of 26 lessons). The optional subject, Evidence-Based Education and Healthcare (EBEd and EBHC) was prepared as a brand new one, with 26 lessons. This subject is focusing on deeper understanding of the quantitative and qualitative principles of the SR creation and on the meaning of the various SR type recommendations. The concept design for the Evidence-Based Education Centre establishment contains points of optimal strategy in the human resources area:

- 5 academic employees - load 1.00, English language minimum at the level of B2-C1 Common European Framework of Reference for Languages (CEFR), graduation of the Evidence-Based in Practice course, Comprehensive systematic review training program course, CSRTP,
- Head/Director of the Centre - load 1.00 (training as above), English language minimum C1 (in relation to the obligation to participate in video-conferences of the JBI European region approx. 4 times per year and the meeting of the directors of the Joanna Briggs Institute centres 1 time per year),
- Deputy Head - load 1.00 (training as above), English language minimum B2,
- Specialised Librarian Researcher, who completes the training on specifications for the SR search activity (part-time load at the beginning of the centre's activities), English language minimum B2,
- Office Worker (part-time load at the beginning of the centre's activities) - special training, English language minimum B2.

The strategy also included the proposal for the workload of the centre's team:

- first two years without teaching duties, focusing exclusively on the Evidence-Based Education (EBEd) topics and secondary research, including completion of the courses, creating the SR protocols, full SR and related publishing activities. In the follow-up period, there are also pedagogical activities at the Faculty, University as well as organising certified courses, etc. The current output of the pilot project is the appointment of the Work Group to discuss the establishment of the Centre for Evidence-Based Education, which operates under the guidance of the Vice-Dean for Science, Research and Doctoral Studies, the Statutory Representative of the Dean.

Conclusion

In relation to the requirements for improving quality in education and health care, a substantial theoretical and practical EBP study becomes a significant component for improving the educational and health care practice. It is appropriate to implement comprehensive Evidence-Based Practice modules with several subjects into the study program curriculum. This way, the students are able to better understand the methods and procedures of individual EBP steps (including implementation, evaluation and dissemination) and after graduation possibly develop their application in their roles of teachers. The EBP topic should be taught by well trained pedagogues with previous research experience. The knowledge of English language minimum at the level of B2-C1 Common European Framework of Reference for Languages (CEFR) is necessary. Teachers should enter the specialised EBP courses willing to rebuild their current ways of working with professional information, in particular in the context of the EBP methodological rules.

Conflict of interest

The authors are unaware of any conflict of interest.

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The Evidence Based Implementation of Nursing Practice in the Romanian Context

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Keywords

Evidence Based Implementation, nurses, midwives, health care, research.

Background

Starting with the year 2010, The Order of Nurses, Midwives and Medical Assistants in Romania, Bucharest Branch (OAMGMAMR Bucharest Branch) has organized activities regarding the development of the profession of nurse and midwife through collaboration and projects initiated together with different national and international organizations. These activities were in accordance with the policies of offering and continuously improving the quality of the health care services and patient safety by standardizing and assessing the health care services and authorizing the medical units by the National Authority for Quality Management in Health Care (ANMCS), which, in 2017, for the first time in Romania, added criteria regarding research activity for nurses and midwives.

Aims

To present the initiative of the professional organization concerning the development process of the profession of nurse and midwife in Romania.

Methods

In 2010, as a part of the OAMGMAMR Bucharest Branch, The Romanian Centre for Evidence Based Nursing and Midwifery: an Affiliate Centre of The Joanna Briggs Institute was created and a working group was formed, consisting of nurses and midwives, clinical experts with the purpose of translating the best evidence based practice, JBI procedures and to hold training courses on scientific research. Subsequently, the centre became The Romanian Centre for Nursing Research. A Joanna Briggs Institute Centre of Excellence.

In 2015, the project Clinical leadership and the development of professional competencies of nurses, midwives and medical assistants was initiated, with the objective of the personal and professional development of nurses and midwives. This project included continuing education courses, initiating research studies in health care and also establishing clinical partnerships and international connections with organizations interested in promoting the best evidence based practice. As a part of this project, three courses for chief nurses and nursing managers were held ("Communication- professional bridge for unity in diversity", "Plan your activity, program your results" and "Medical legislation and leadership in the context of decision making in difficult situations"), pilot research studies were made on the theme of pressure ulcer management and pain management in 2 Bucharest hospitals, clinical partnerships were made with 5 Bucharest hospitals and we initiated international collaboration with 2 prestigious European universities: The Faculty of Health, Education and Life Sciences, Birmingham City University (BCU) and The School of Nursing and Midwifery, Robert Gordon University (RGU).

In 2017, we initiated the process of reviewing and updating the operational procedures of medical practice for nurses and midwives and also of developing protocols and evidence-based practice and a working group was formed in order to do this. In the same year, 2017, having as objective to standardize and document the nurses' and midwives' health care activities, we initiated the project

regarding “The Organizing and Documenting of the Health Care Process. The Development of the Care Plan"; the activities within the project were materialized by holding two workshops in 2018: “The Planning of Care– Principles and Practice" and “The Care Process–Putting it into practice".

Results/Discussion

We conducted clinical audit activities on the assessment of pressure ulcer risk and, also, an educational program on the theme acute postoperative pain by partially using the JBI methodology. The process of reviewing and updating the operational procedures of medical practice for nurses and midwives and also of developing protocols and evidence-based practice is a complex process that involves both human and material resources, as well as time and which continues up to present and the process regarding the organizing and documenting of the process health care process was materialized through the development of a care plan.

Conclusion

The profession development activity takes place systematically, but in a favorable context because of the involvement of the professional organization, through The Professional Scientific Department of Research and Development of the Profession, because of the collaboration with national and international organizations and also because of the framework created by the development of quality standards for health care services by the state authority, but, in order to get actual and high quality results, a standard methodology for the implementation of research and best practice must be used.

Evaluation of an evidence based model of safeguarding clinical supervision within one healthcare organisation in the United Kingdom

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Abstract

Safeguarding vulnerable adults and children forms a core tenet of contemporary healthcare practice. However, it is also acknowledged that insufficient time has often been allocated to supporting healthcare professionals in decision making, care planning and care delivery where safeguarding is a feature of the presentation or case. Clinical supervision has been recognised as a valuable mechanism through which healthcare professionals may evaluate, reflect upon and develop their clinical practice within the context of safeguarding. However, while there is a general consensus with regard to the value of clinical supervision there are multiple approaches to utilisation in practice. This brief communication provides an overview of an evaluation of one model of safeguarding clinical supervision which was explicitly developed to support healthcare professionals in evidence-based decision making as part of their everyday practice.

Keywords

Evidence transfer, Evidence-Based Healthcare, Evaluation, Safeguarding, Clinical Supervision

Background

Safeguarding vulnerable adults and children forms a core tenet of contemporary health care delivery across many geographical contexts and is explicitly addressed within the United Kingdom (UK) through national policy initiatives[1,2]. It is therefore pivotal that those working in clinical practice, across a range of settings, are adequately equipped with the requisite knowledge and skills to be able to identify, support and work with patients/clients and their families where safeguarding concerns may arise[3]. From this perspective, within the UK as elsewhere safeguarding has often been referred to within the literature as 'everyone's responsibility'[4] and thus should arguably form an integral part of clinical practice.

One healthcare organisation in the UK (National Health Service (NHS) Trust) has recently developed a structured Safeguarding Supervision Framework (SSF). The model involves structured preparation and training for clinical staff alongside a clear structure of safeguarding supervision responsibilities across all grades of clinical staff. The rationale for the development of this initiative was based on the ambition to embed safeguarding clinical supervision as a part of everyday practice within teams and across services, rather than as a standalone activity predominantly supported by the safeguarding specialist team.

As this was a new initiative, prior to Trust wide 'roll out', the SSF was the subject of a formal evaluation in one service within the Trust. It was anticipated that the findings from the evaluation and subsequent recommendations would have the potential to inform the utility and transferability of this initiative beyond the evaluation site.

Aims

The overall aim of this evaluation therefore was to examine the extent to which the Safeguarding Supervision Framework (SSF) supported the delivery of a safe and effective safeguarding supervision process to practitioners within one discrete service.

This evaluation study had the following research questions:

- How is the SSF operationalised in practice by supervisors?
- How do supervisees experience the SSF process, including barriers and enablers to supervision support in practice?

Methods

This study used a survey approach, which involved the development and administration of an online anonymous survey with clinical supervisors and supervisees working within the one service of the Trust. The study was approved by requisite authorities (FMHS REC ref no 159-1711). Participants were individuals involved in giving and/or receiving safeguarding supervision within the service at the Trust and were aged 18 years or above. A total of 142 individuals completed the anonymous survey. Participants had a mean age of 45.7 (median = 47; min/max = 26/63) and were mostly females (n=126; 92.0%). Overall, there was a balance in representation of individuals from all UK NHS clinical grades (≤4, 5-6, 7-8) and majority were in their current roles for seven years or more (n=80; 58.4%).

Materials

Prior to the survey development, the researchers carried out several discussions with the senior members of the Safeguarding Team at the Trust and attended several of the safeguarding supervision preparation/training sessions in order to gain a better understanding of the safeguarding supervision process. From these meetings and events, a pool of topic items for the survey was created and refined within the research team. These items were then reviewed by senior members of the team leading the safeguarding and social care team. These topic items were then taken to one of the training sessions so that the attendees could evaluate the clarity and relevance of the items. These were then refined again based on the feedback received to improve understanding and responsiveness. The final group of topic items founded the basis for the survey.

The final survey version contained general demographic and work items (age, gender, current role, time in current role) and questions related to the safeguarding supervision (how often received safeguarding supervision, how often provided safeguarding supervision, whether also provided clinical supervision, whether attended the safeguarding supervision training). Twenty-five[1-5] Likert-scale items evaluated the individuals' perceptions about their safeguarding supervision in terms of knowledge, confidence and satisfaction. Finally, participants were given the opportunity to submit open-ended comments related to the survey or about their experiences with safeguarding supervision and/or training.

Data collection

The survey items were uploaded to a confidential and anonymous survey platform. The survey was carried out between April and June 2018 and individuals took on average 10 minutes to complete the questions. It was not mandatory that all questions were completed, meaning that participants could leave questions in blank if they did not wish to provide an answer.

Data analysis

Survey

The survey data was exported from the survey platform to the SPSS® 22. The data were analysed descriptively, with tables of frequencies, range, means and medians. Correlation and significance

scores (Pearson Chi-square) were calculated for the Likert scales and gender, age, time in the current role and band groups to explore differences in knowledge, satisfaction and confidence regarding safeguarding supervision between these groups. A 95% confidence interval ($p \leq 0.05$) was considered for all calculations.

Open-ended comments

Participants' comments were recorded on an EXCEL® spreadsheet. Research team members read the participants' open-ended comments/statements independently. Comments/statements were grouped by the researchers into a series of themes alongside an explanatory commentary.

Results/Discussion

The survey results showed that individuals were overall confident, knowledgeable and satisfied with their safeguarding supervisions. However, individuals at a lower Band were significantly less positive about supervision, particularly in relation to how much they felt enabled to explore their safeguard concerns, how much they felt equipped to provide/receive safeguarding supervision and about how much they understood clearly the difference between managerial supervision/clinical and safeguarding supervision.

In addition, the high reporting levels of knowledge, confidence and satisfaction in individuals receiving more hours of supervision indicate that a high number of hours of supervision can be more beneficial in many ways, including building professional confidence and as such arguably will have a positive impact in clinical practice. Gender, age and length of time in current role do not appear to affect individuals' appraisal of their safeguarding supervision sessions.

The open-ended comments provided an additional explanatory element to the evaluation.

Conclusion

In terms of the key recommendations arising from the findings of the evaluation it may be most appropriate to pose the question of "what constituents form the core components of a successful SSF relationship?'

1. Preparation of SSF supervisors and supervisees – potential to review both the length and content of the current training. Possible inclusion of problem-based learning and case-based scenarios for supervisors alongside an overview of the SSF philosophy for both supervisors and supervisees.
2. Clear demarcation between managerial and safeguarding clinical supervision – ensuring that the boundaries (and time) allocated to supervision are not blurred.
3. Potential to review current guidance and incorporate into a 'best practice' resource guide.
4. Greater attention/focus given to the individuals at lower grades so that their safeguarding supervision sessions can be more open, supportive and effective, and they can feel more equipped, satisfied and confident about it.
5. Establishing equity of hours and frequency of safeguarding supervision so that individuals taking part can benefit from it more equally.

A detailed presentation of the SFF model and study results/findings alongside the implications for evidence-based practice development forms the basis of the conference presentation.

Conflict of interest

None known

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A full copy of the report may be obtained from the authors via JM email.

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Getting Guidelines into Practice: Lessons Learned as Best Practice Spotlight Organization Host

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Abstract

The Spanish Best Practice Guidelines (BPG) Implementation Project is part of the Best Practice Spotlight Organizations® (BPSO) international Program, coordinated by the Registered Nurses' Association of Ontario (RNAO). The Project is coordinated in Spain by the national Nursing and Healthcare Research Unit (Investén-isciii) of the Institute of Health Carlos III, and the Spanish Collaborating Center of Joanna Briggs Institute.

To influence the uptake of nursing BPGs across health care organizations, to enable practice excellence and positive client outcomes.

After translating the RNAO's BPG into Spanish the Host Organization published a formal call for proposals to select healthcare settings in Spain to implement the RNAO's BPG and evaluate the results. The approach is: nursing-led and multidisciplinary; context specific; and involving a wide range of stakeholders. The Implementation of Best Practice Guidelines Toolkit guides the process: cascade training, selection of recommendations to be implemented, 3 years planned implementation activities, monitoring by measuring process and outcome results for patients discharged 60 days every year. Host Organization supports healthcare settings selected.

The first call was launched in 2012. Eight healthcare settings (11 sites), attending 1,3 million of people, were selected (hospitals and primary health care centers). They chose 10 BPG, according to their needs. In 2015 and 2018 sixteen more healthcare settings have joint the program with a total of 263 sites. And in 2019 3 completely regions will joint of the program as a regional host.

Now a days, more than 1200 nurses and 40 other healthcare professionals have been trained, evidence based protocols have been developed or updated, patient education have been promoted, and international BPSO® indicators have been evaluated in an electronic platform.

The results obtained acknowledge that RNAO implementation method could be replicated with success internationally. The strategies based on local context have work and we have consolidated a network that shares knowledge and strategies and promotes evidence-based culture among Spanish healthcare settings and evidence-based care to patients.

Keywords:

Evidence implementation, Best Practice Spotlight Organizations®, Evidence-based Guidelines, Registered Nurses Association of Ontario.

Background

Evidence-based practice is considered a methodological paradigm that should serve as a reference for the unification of criteria in clinical decision making.

Best Practice Spotlight Organizations (BPSO) are health-care and academic organizations selected by the Registered Nurses' Association of Ontario (RNAO) through a request for proposals process to implement and evaluate the RNAO's best practice guidelines. It is a dynamic partnership that focuses on making a positive impact on patient care though evidence-based practice.

In this context the Nursing and Healthcare Research Unit (Investén-isciii) and the Spanish Centre for Evidence Based Nursing and Healthcare applied as a BPSO (Best Practice Spotlight Organizations) Host, to initiate the BPSO Program at national level. The BPSO Program is demonstrated to have an impact on health structures, organizational concerns, process and patients' outcomes. Overall the participating organizations have achieved a change in culture, shifting to one that is oriented to evidence.

Aim

The aim of this project was to influence the uptake of nursing BPG across health care organizations, to enable practice excellence and positive client outcomes.

Methods

After translating the RNAO's BPG into Spanish the Host Organization published a formal call for proposals to select healthcare settings in Spain to implement the RNAO's BPG and evaluate the results. The approach is: nursing-led and multidisciplinary; context specific; and involving a wide range of stakeholders. The Implementation of Best Practice Guidelines Toolkit[1] guides the process: cascade training, selection of recommendations to be implemented, 3 years planned implementation activities, monitoring by measuring process and outcome results for patients discharged 60 days every year. Host Organization supports healthcare settings selected. The Spanish BPSO program is based on 4 strategies:

1. Translation of BPGs into Spanish: Investén-isciii initiated an effort to translate RNAO's best practice guidelines for use in the Spanish context, in partnership with RNAO, to establish quality criteria for guidelines translation.
2. Dissemination: Providing on-line access to BPSO program information, launching in the media and displaying informative sessions, are means to draw attention to the opportunity of participating. BPSOsin Spain are called 'Centros Comprometidos con la Excelencia en Cuidados' (CCEC).
3. Implementation and evaluation: The Spanish BPSO Host launched the first call for proposals through a competitive application process, to select health-care settings in Spain for implementing the RNAO's BPG and evaluating the results[2]. The approach is nursing-led and multidisciplinary; multi-pronged in strategy; context specific; and involves a wide range of stakeholders. The Toolkit: Implementation of Best Practice Guidelines (RNAO, 2012) guides the process with cascade training, selection of recommendations to be implemented, a 3-year schedule of planned implementation activities, and monitoring by measuring process and outcome results for patients.
4. Sustainability: supporting the maintenance and scaling-up d BPGs implementation, creating a national network of BPSO® becoming part of the international BPSO network.

Evaluation is one of the key pillars of the program. For the evaluation component of the program, 'Data Dictionaries' have been developed to document and report on the Nursing Quality Indicators. RNAO's Nursing Quality Indicators for Reporting and Evaluation (NQuIRE®) provides the evaluation mechanism and process to monitor BPG implementation by BPSO. To adapt evaluation to country requirements, the Spanish BPSO Host developed a specific database, CarEvID®, to measure the structure, process and outcomes of BPG implementation in Spanish organizations. Together RNAO and the Spain BPSO Host have analyzed minimum data set applicability and established procedures to transfer data from the national nursing database CarEvID® to the international platform NQuIRE®.

All BPSO collect baseline data, from the month prior to their official beginning as BPSO candidates. Data are collected subsequently during the last 5 days of every month, except for low prevalent

cases, such as ostomy, in which case all patients are measured. Descriptive analysis of variables is analyzed by CarEvID®.

Results/Discussion

For the first cohort, out of 33 organizations attending the call, eight health-care settings involving 11 sites, providing care to 1.3 million of people, were selected. They are located in 7 different regions and include hospitals as well as primary healthcare centers, after the evaluation process 8 organizations were selected from the 33 BPSO organizations interested. Overall, the 8 BPSO implemented 10 BPG, according to the needs at each institution. Among 26 available Guidelines, the most selected BPG were: Ostomy Care & Management, Prevention of Falls and Fall Injuries in the Older Adult, Breastfeeding Best Practice Guidelines for Nurses and Assessment and Management of Pain.

From 2012 to 2014, BPSO candidates engaged and trained health practitioners in implementing the selected guidelines; reviewing and updating protocols and procedures; monitoring and evaluating their utilization, and reporting data to the Nursing and Healthcare Research Unit and RNAO. Upon successfully attaining all of the deliverables, they earned their BPSO Designation in 2015. Designated organizations continue to receive support from the National Unit for Nursing Research and RNAO, and renew their designation every two years.

In late 2014, a second open call for BPSO candidates was issued, and 10 out of 60 organizations, representing 70 health-care sites across Spain, were selected to begin implementation in 2015. At this time, 16 BPG are being currently implemented, taking into account both cohorts. Even if the characteristics of organizations in the new cohort differ from the first one, feelings of leaders and champions continue to be encouraging.

Finally in 2018, a third cohort is joint the program, 8 organizations were selected from the 25 interested, representing 193 health-care sites across Spain. The eight new sites have chosen, 15 BPG to be implemented.

Nowadays we have been able to involve a total of 26 organizations representing 263 health-care sites across Spain. Figure 1 shows the complete map of the 263 BPSOs actually implementing guidelines in Spain.

Nowadays CarEvID® includes more than 8000 records related to falls prevention, 3000 records of assessment and management of pain, 1500 records related to breastfeeding, 700 records related to ostomy care and 200 records related to stroke assessment. There are many areas where we can observe the impact of the program in Spain:

1. New organizational structures have been created or promoted, which serve to embed evidence-based culture into the organization.
2. More than 3200 nurses and other health-care professionals have training in implementation, or specifically in each BPG's recommended interventions. Their training has resulted in: the harmonization of interventions, the development or update of evidence-based protocols, the promotion of patient education, and the evaluation of international BPSO® indicators using an electronic platform.
3. One of the most important results is the harmonization of records. Since clinical records are established at a regional level, any change influences all health-care organizations, thus suggesting a wide spread of BPGs implementation in the future.
4. Some of the major findings include the improvement of process and outcome indicators. Falls prevention, ostomy care and breastfeeding were three of the most frequently selected guidelines, by eleven BPSO, nine BPSO and nine BPSO respectively. Their results in relation to these guidelines showed significant improvements when comparing baseline measures to the 3rd year post-implementation data.

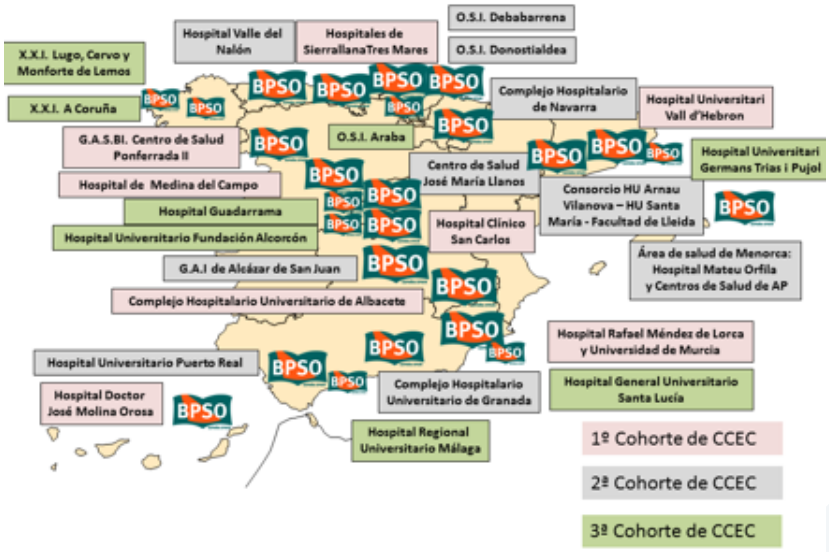

Figure 1: Map of 26 healthcare settings included in the Spanish BPSO® Program

Conflict of interest

Authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest, or non-financial interest in the subject matter or materials discussed in this manuscript.

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Public media as a tool for dissemination of evidence based information

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Abstract

Internet is becoming more and more popular source of all-kind information. The quantity of web pages that offer information and advices about health is increasing, though the quality is often not raising. The aim of presented work is to describe advantages and difficulties connected with dissemination of evidence based information in social media. Using Polish Facebook and Twitter profiles over the course of two years we posted about 400 posts and tweets. We analysed types of topics and some strategies to broaden our audience. On basis of our results we found that probably an inconclusive results make reviews summaries unintelligible and not popular in public media, though broad reach of post in public media does not implicate that the message was understood. Even though a lot of efforts were put into guidelines how to write a proper plain language summary of the systematic review still there is a space for improvement.

Keywords

Dissemination, evidence based information, Facebook, public media, twitter

Background

Internet and web pages are becoming the most important source of information connected with heath[1]. Professional web sites are often characterized by difficult language, often foreign or technical that is not widely understood. Evidence based knowledge, which is connected with high quality standards, is used and popular among practitioners but often not achievable for those who do not have the basic medical knowledge. In Poland among 24 the most read web sites connected with heath, 50% were connected with newspapers or magazines. Studies have found that users focus on the top 10 web sites that are listed as a search result[2]. Unfortunately according to studies the most visited websites cannot be classified as high quality source[3,4].

As health promotion constitute an open area for all people, there is a need for translation of evidence based information into real plain, non-professional language. Knowledge translation and dissemination of checked evidence can be fruitful in many fields, like rising health consciousness, help in building proper communication between practitioners and their patients or just give a useful advice. Social media remain even more demanding as usually try to show some facts with just few words.

Aims

The objective of presented communication is analysis of advantages and difficulties connected with dissemination of evidence based knowledge on example of plain language summaries shared through social media in Poland.

Methods

Polish branch of Cochrane organization launched the Facebook fan page in March of 2016 and a Twitter fan page in November 2016. Translated into Polish plain language summaries (PLSs) are uploaded three times a week as posts and tweets.

Results/Discussion

The goal of those profiles is presenting a wide range of topics from different branches of medicine form issues connected with alternative medicine interventions for common diseases (like cold) to more specific topics (like interventions in cystic fibrosis), so that in the same time we can reach professionals and non-professionals. As the idea PLSs is to describe systematic review results in communicable language and PLSs may facilitate involvement of patients in the process of medical intervention. Moreover they give practitioners a tool for patient's education. However there are some drawbacks that make PLSs idea less useful. On basis of our experience readers still can find non-plain-language terms, e.g. "randomization" or terms that must be additionally described by the translator.

Probably the main problem of PLSs dissemination in public media is the requirement of briefness, both in form and in conclusions. As we are bonded with the original message enclosed in the PLS it is especially discouraging when the original abstract is more conclusive than the related PLS. The idea of PLS as the promotion of the whole review should be highlighted in the Cochrane Handbook.

All posts or tweets that are published on our fan pages have the introduction composed of maximum 3 sentences based on the main question analysed in the review. On basis of our example the professionals expect a short general description of the review topic while non-professionals look for catchy introduction. As usually the results are not straight incorporation of some results in the post's introduction may generate the overinterpretation that discourages the professionals. In general the simple statement describing who can benefit from reading the post was found to be best.

Finally it should be highlighted that posts connected with conclusive results are more prone to be "liked" or "shared". The more vital topic the higher engagement we note, though topics found interesting for Twitter audience are not the same as the most popular among Facebook recipients, e.g. in our example Twitter recipients were more interested in topics connected with supplements while vaccination was more popular on Facebook profile. We would like stress that popularity does not mean all recipients have correctly understood the message, as in our case with the topic about vaccination, the most popular among our all posts which was shared as an evidence on websites fighting for and against vaccinations. Analysis of the context showed that the results were not understood.

Even though there are difficulties in dissemination of reliable data the presence of our fan pages makes a difference as in two and half years we gained about 900 followers and we still work to highlight valuable data in the Internet.

Conclusion

The form of PLS still requires an improvement as shorter forms need to choose words more carefully. PLS should be treated by systematic review authors as the way how they want to present the research to healthcare consumers and encourage them to read it. Moreover the inconclusive results should be described with special caution in the way that enables recipients to understand the value of such result.

Conflict of interest

We declare no conflict of interest

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ABSTRACTS

Pancreatic cancer – place of clinical practice guidelines

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Abstract

Pancreatic cancer (PC) is one of the most malignant tumours with high mortality[1]. PC incidence has risen with years and the treatment became one of the greatest oncological as well as social challenges in this century[2]. Radical surgical resection is the therapeutic method of choice offered significant improving of survival. Unfortunately is primary available in only about 20% of patients. The most patients are with locally advanced tumour or with disseminate disease. Current situation is influenced by not keeping of existing clinical practice guidelines (CPG). There were nearly 13.000 patients analyzed with PC stage I[4]. 52,8% of patients were not offered to radical resection. In other countries the situation is very similar and heterogeneity of health care is very high[5]. On the other hand quality of existing CPG is also heterogenic. From more than existing 2.500 CPG were only 21 (0.831%) fulfilled criteria of CPG[6]. These 21 CPG were analyzed by AGREE II with 4 reviewers per guideline and quality appraisal was done with some controversies. To the second critical appraisal were included 353 CPG and only 14 of them fulfilled criteria of CPG[6]. To conclude - the success of PC treatment depends on the level of keeping of clinical practice guidelines (CPG).The quality and transparency of the development process and the consistency in the reporting of PC guidelines need to be improved.

Keywords

Pancreatic cancer, incidence and treatment, current situation, clinical practice guidelines

Conflict of interest

No conflict of interest

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Unpacking the evidence that informs expert opinion: collecting evidence from experts transparently for trustworthy guideline recommendations

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Abstract

Guidelines should be informed by the best available evidence. Ideally, the evidence used to inform recommendations should be summarised using systematic reviews. But this can be difficult or impractical when evidence is unpublished, diseases are rare, contextual information is required, treatment based on tradition, or resources are limited. It may be necessary to rely on evidence from experts (expert evidence). However, this poses a number of challenges. In this article we describe these challenges and propose solutions to them.

Over a period of twenty years we discussed and clarified problems with expert evidence and ways of addressing these problems. Based on these discussions, we iteratively developed a conceptual framework. The discussions and the framework were informed by experience working with guideline panels and the approach used by the GRADE Working Group to make judgements about the certainty of evidence and going from evidence to recommendations.

We have identified four problems with expert evidence: not distinguishing between expert opinion and expert evidence; untimely introduction of expert evidence; conflicting interests; and inadequate appraisal of expert evidence. Our proposed solutions for these four problems are to: make a clear distinction between expert evidence and expert opinion; establish rules for when expert evidence can be introduced; establish a process for declaring and managing conflicts of interest; and collect and appraise expert evidence systematically and transparently.

Collecting and appraising expert evidence systematically and transparently can enable guideline panels and users of guidelines to appraise expert evidence in the same way that they appraise research evidence. This can help to ensure that expert evidence is used appropriately to inform recommendations.

Keywords

Guidelines, recommendations, experts, evidence-based medicine, expert evidence.