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Development and Evaluation of the Eastern Pennsylvania and Delaware Geriatric Education Center's (EPaD GEC) Geriatric Oncology Online Toolkit

Mariana R. Kuperman

Jefferson School of Population Health, mariana.kuperman@jefferson.edu

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Development & Evaluation of the Eastern Pennsylvania & Delaware Geriatric Education Center's Geriatric Oncology Online Toolkit

Mariana R. Kuperman

Thomas Jefferson University

School of Population Health

MPH Capstone

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Background-Interprofessional Health Care Education & Older Adults

- **Public health problem/ issue**
 - A deficiency in interprofessional health care education on the unique needs of older adults
 - Barriers to the integration of geriatric content in health sciences training programs
 - Availability of practitioners
 - Scarcity of educators with specialized training
 - Lack of geriatric exposure in educational programs
 - Low level of student interest

Interprofessional Health Care Education & Older Adults (Cont.)

- **Strategies to enhance geriatric expertise & awareness**
 - Clear requirements in training curricula
 - Certification examinations
 - Geriatric Education Centers

The Geriatric Education Centers (GEC)

- Supported by Health Resources Services Administration (HRSA) grants of the U.S. Department of Health and Human Services
- **Purpose:** To support the establishment or operation of GECs
- **Mission:**
 - Target students, faculty, & practitioners in geriatrics
 - Improve their education & training
- Nationally there are 45 GECs
- Typically located in Academic Settings

The Eastern Pennsylvania and Delaware Geriatric Center (EPaD GEC)

- Established in 2005
- Specific focus on interprofessional (IPE) geriatric education in **SE & NE Pennsylvania & Delaware**
- Academic partners represented on the Steering Committee
 - TJU, Marywood University, the Commonwealth Medical College, U of Delaware, & Christiana Care Health System
 - **Lead organization:** JFMA, Division of Geriatrics
 - 21 members
 - Physicians, nurses, public health professionals, pharmacists, Occupational & Physical Therapists, & social workers

The Eastern Pennsylvania and Delaware Geriatric Center (Cont.)

- **Mission:**
 - To improve geriatric expertise among interprofessional students, faculty and practitioners to achieve measurable improvements for older persons.
 - The organization is committed to improving the health and quality of life of older adults and their caregivers, translating new evidence and innovative practice models into practical applications, and creating effective curricula and programs.

EPaD GEC Interprofessional Training Programs

- **Online educational videos**
 - “Interprofessional Home Visit”
 - “Interprofessional Hospital Visit and Discharge Planning,”
 - “Interprofessional Team Care of an Acute Stroke Patient.”
- **Online clinical skills scenario exercises**
 - Detail the specific tasks of members of the interprofessional team in the settings of the educational videos
- **IPE Geriatric Grand Rounds**
 - Audio and PowerPoint slide recordings from interprofessional grand rounds sessions held in the service area

EPaD GEC Interprofessional Training Programs (Cont.)

- **Self-directed online learning modules**
 - “Depression Management”
 - “End of Life Care”
 - “An Interprofessional Approach to Chronic Conditions”
 - “Interprofessional Geriatric Transitions of Care and Discharge Planning”
 - “Using an Interprofessional Family Centered Approach to Dementia Care”
 - **“Interprofessional Geriatric Oncology Care”**

Geriatric Cancer Epidemiology

- The 2nd leading cause of death of persons age 65 and over
- Cancer poses a significant health & financial burden on patients, families & the US healthcare system.
- **Costs: \$201.5 billion** for total cost, **\$77.4 billion** for direct medical costs, & **\$124.0 billion** for indirect cost of mortality
- Rates are higher in older adults ≥ 65 as compared with younger adult sub-groups

Age groups (years)	Crude incidence cancer rate (per 100,000)	Crude mortality cancer rate (per 100,000)
20-44	565.8	81.4
45-59	1,915.1	472.0
60-64	1,285.2	383.7
65-69	1,812.0	583.2
70-74	2,106.7	812.0
75-79	2,298.1	1,080.3
80-84	2,324.5	1,353.8
85+	2,105.0	1,619.8

Specific Issues of Older Adults with Cancer

- Comorbidities
- Polypharmacy
- Physical Frailty and Cognitive Impairment
- Cancer trial data based on younger patients and do not take comorbidities into account
- Therapeutic decision-making poses a unique challenge for patient, family, & medical team

EPaD GEC Geriatric Oncology Online Module

- **Geriatric Oncology Online Module curriculum**
 - 3 content areas related to the specialized considerations in the treatment and care of older cancer patients
1. **Geriatric Oncology Risk Assessment for Treatment Options in Older Adults with Cancer**
 2. **Decision Making for Older Adults with Cancer**
 3. **The Older Adult Oncology Patient and Nutrition**

EPaD GEC Geriatric Oncology Toolkit (TK)

- A companion to the online modules
- To further the educational utility of the module series
- To expand upon module resources & tools
- Resources for providers, patients, & caregivers

Project Goal

- To develop the EPaD GEC's Geriatric Oncology online toolkit & assess its benefits for enhancement of interdisciplinary health providers' knowledge and ability to assist older adult cancer patients and their families

Specific Aims

- **Aim 1:** To develop the EPaD GEC's Geriatric Oncology online toolkit
- To evaluate from the perspective of healthcare providers and students
 - **Aim 2:** The “**organizational utility**” (organizational framework, aesthetics and utility) of the EPaD GEC online toolkit
 - **Aim 3:** The **content** of the EPaD GEC online toolkit, & its ability to improve knowledge of supportive resources for older adult cancer patients and their families

Methods- Toolkit Development

- During the finalization of the Geriatric Oncology Online Module
- In conjunction with the EPaD GEC Steering Committee
- Jefferson IT personnel consulted to transform into a downloadable PDF format

Background- Assessment of Professional Online Learning Materials

- **Utility of online materials & Health providers & online learning**
 - Designers must create online resources that give a good first impression in a short amount of time
 - “E-learning” is successful in medical education- individualized & collaborative learning

Assessment of Professional Online Learning Materials (Cont.)

- **Health providers and preferences regarding online learning**
 - Health professionals are connected to the Internet
 - Not necessarily using the Internet for database research
 - Even with access to many forms of information, nurses and physicians turn to colleagues for recommendations
 - Unequal access among medical communities
 - Rural vs. urban; students vs. clinicians
 - Physical access, time available, skill sets

Toolkit Development (Cont.)

- Divided into 6 main sections based on the curricula of the three online modules
 - “Assessment”
 - “Decision Making”
 - “Nutrition”
 - “Ethnogeriatrics” (culture, beliefs, individual practices)
 - “Home & Community Supports”
 - “Public Benefits Programs”

Assessment

- **Target Population: Interprofessional Healthcare Students and Practitioners**
 - Convenience sample
 - Recruited via:
 - The EPaD GEC staff & steering committee
 - The Geriatric Oncology Multidisciplinary Group

Survey Development

- Created using Survey Monkey Software
- 18 questions
- Quantitative & qualitative: using Likert scale & open-ended questions

Survey Development (Cont.)

- **5 domains** created to represent project's 2nd & 3rd aims
- **Domains 1-3: Organizational Utility**
 - Organizational framework (topic order, overall organization)
 - Aesthetics (layout, professionalism)
 - Utility (ease of use, skill needed)
- **Domains 4 & 5: Content**
 - Perceived usefulness
 - Respondent understanding of Geri-Onc treatment decisions

Analysis

- Survey data were collected and analyzed using Survey Monkey software
- Responses were further analyzed by participant discipline & level of training
 - The TK in conjunction with the modules
 - More neutral and/ or negative responses

Results

Current Level of Training	Number of Participants	Examples of Programs
Student	6	Medicine (4) Nursing (1) Geriatrics (1)
House Staff (TJU)	2	Family Medicine (2)
Licensed Practitioner	8	Family Medicine (1) Geriatrics (2) Nurse (1) Nutritionist (1) Oncologist (1) Psychologist (1) Neurologist (1)
Other	7	Clinical Research Coordinator (1) Public Health/MPH – undefined level of training (4) No response (2)
TOTAL	23	

TK sections completed by respondents

3. Which sections of the Geriatric Oncology Toolkit did you review? (check ALL that apply)

Answer Options	Response Percent	Response Count
Assessment	95.2%	20
Decision Making	95.2%	20
Ethnogeriatrics	90.5%	19
Nutrition	95.2%	20
Home & Community Supports	90.5%	19
Public Benefits Programs	90.5%	19
	<i>answered question</i>	21
	<i>skipped question</i>	2

TK organizational utility

(N=22)

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Appearance: Professional & Aesthetics	1	1	1	9	10
Ease of Use	0	0	2	8	12
Well organized	0	0	3	10	9

Content of TK

(N=22)

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
New Information	1	4	4	10	3
Efficiency	0	0	1	6	15
Effectiveness	0	0	1	7	14
Learn about resources	0	0	2	7	13
Recommend to students	0	0	2	5	15

Content of TK (Cont.)

(N=22)

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Recommend to healthcare professionals	1	0	1	5	15
Share with patients & family	0	1	1	7	13
Time well spent	0	0	1	8	13
Would use again	0	0	1	9	12

TK content is new information for me

- **Level of training (N=22):**
 - Student: **5 agree**, 1 neutral, 0 disagree
 - House Staff or LP: 3 agree, 2 neutral, **5 disagree**
 - Other: **5 agree**, 1 neutral, 0 disagree
- **Discipline (N=22):**
 - Geriatrics or Oncology: 1 agree, 0 neutral, **3 disagree**
 - Family Med: 0 agree, 1 neutral, **2 disagree**
 - Other: **12 agree**, 3 neutral, 0 disagree

Should additional resources be added to the TK? (N=22)

- **Yes:** 18.2% (4)
- **No:** 81.8% (18)
- **Example of Suggestions:**
 - “More links to resources for specific types of cancers - locally and nationally”

Respondents who Reviewed Modules & Toolkit (7/23)

	Risk Assessment	Decision Making	Nutrition
Medical Student (Geriatrics)	X		
Geriatrician	X		
Nutritionist	X		
Medical Student	X	X	X
Oncologist	X	X	X
Family Medicine	X	X	X
Nurse	X	X	X

Content- Understanding of Geriatric-Oncology Treatment Decisions (N=7)

- Can the TK enhance understanding of the modules?
 - **Risk Assessment & Decision Making**
 - Only agree/ strongly agree
 - **Nutrition**
 - **5 agree/** strongly agree, 2 neutrals
- The TK in **conjunction** with the module increased understanding of **role** in treating older cancer patients
 - **5 agree/** strongly agree
 - 2 neutral (both students)

Discussion

- **Strengths**
 - Aims achieved
 - Toolkit design
 - Participants represented disciplines that work with older adult cancer patients

Main themes & lessons learned

- Practitioners working in geriatrics & geriatric oncology were more likely to be familiar with TK content
- TK can improve efficiency & effectiveness
- TK may be an effective resource to educate graduate level medical students
- TK is effective as a stand alone resource

Limitations

- **Small Sample Size**
 - Members of desired sub-specialties not reached
 - **Students:** NP, Pharmacy, Social work, PA, PT, OT
 - **Practitioners:** Internal Medicine, Heme/Onc, NP, Pharmacist, or Social Worker
 - No patients or caregivers
- **Link to the EPaD GEC Online Learning Modules**
 - 15/ 23 respondents did not review the modules
 - Survey was created to understand the utility of the TK in conjunction with the Modules
 - Is difficult to adequately evaluate without additional input from individuals who reviewed both the TK & modules

Recommendations for the EPaD GEC

- **Targeted Dissemination of TK**
 - Oncology, Geriatrics, Family Medicine
 - Single location for resources
 - Locations options:
 - PDF version in office- print out appropriate sections when needed
 - University's Intranet
 - Electronic Medical Records

Recommendations for the EPaD GEC (Cont.)

- **Training Tool**
 - Target residents and fellows
 - Oncology, Geriatrics, and Family Medicine
 - Use EPaD GEC members as trainers
 - Remain on EPaD GEC website
- **Include in TK's Introduction:**
 - “A person will achieve the most benefit when reviewing the TK in conjunction with the online learning modules”

Conclusions

- The EPaD GEC should continue to develop online TKs to enhance resource knowledge & access of the online modules
- With the continued growth in the older adult population, & the greater prevalence of cancer in older adults, there is a continuing need to educate interprofessional health care providers on the specialized needs of older cancer patients

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Thank you!