PILOT TESTING OF AN EDUCATIONAL NEEDS ASSESSMENT QUESTIONNAIRE FOR CARDIAC REHABILITATION PATIENTS IN CANADA

Toronto Rehab

University Health Network

GLM GHISI[1,2], S GRACE[1,2,3], MF EVANS[1,4], S THOMAS[1], PAUL OH[1,2]
[1]University of Toronto, Faculty of Kinesiology and Physical Education Toronto, ON, Canada. [2]Toronto Rehabilitation Institute, Cardiac Rehabilitation and Secondary Prevention Program. Toronto, ON, Canada. [3]School of Kinesiology and Health Science, York University, Toronto, Canada. [4]Health Design Lab, St. Michael's Hospital, Toronto, Canada.

BACKGROUND

The effective provision of appropriate health information is important for individuals living with chronic conditions such as coronary heart disease. Increased patient satisfaction, reduced levels of psychological distress and enhanced perception of control are all variables associated with effective health information provision. Effective communication is also associated with better patient adherence to treatment.
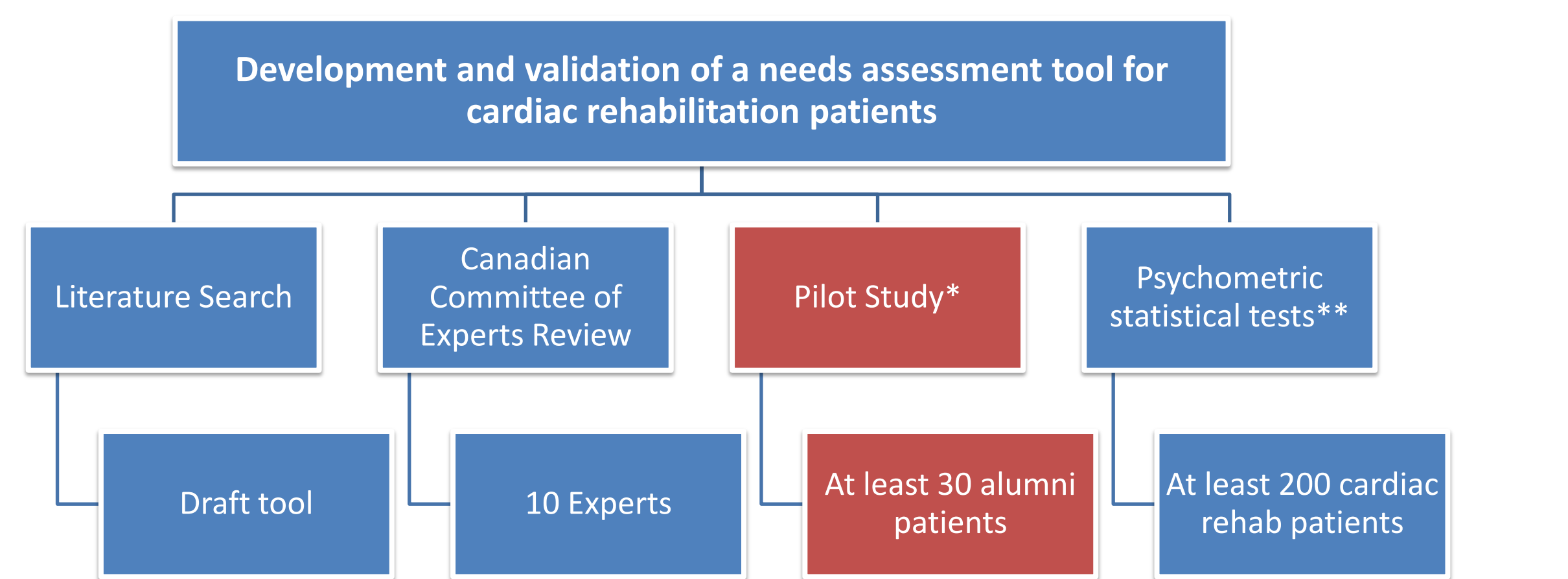
Although there has been considerable focus upon the content of health information provision, there is less available information about cardiac patients' preference for how they would like this delivered to them (e.g. written, video, during consultation), by whom and what point during their recovery.

In the cardiac rehabilitation field, it is observed that some patients understand little of what has happened to them or how to manage their lives in the aftermath of their treatments, and many say that they would want and need more information than they usually receive in the course of these programs. In order to plan and to carry on an effective educational intervention it is very important to have precise information about what the patient knows regarding cardiac disease and secondary prevention, and also identify what are their educational needs.

Good patient education, involves assessing needs, setting goals and objectives, implementing teaching plan, and evaluating outcomes. The identification of information needs is considered the first step to improve knowledge that ultimately improves health outcomes. There is no tool in the literature that addresses needs assessment to cardiac rehabilitation patients.

METHODS

After an extensive literature search, 61 educational items were collected and reviewed by a Canadian Committee of Experts (n=10). Items were rated on a 5-point Likert-type scale that ranges from 1 = really not important to 5 = very important. High scores indicate high educational needs of each topic identified by the subjects. The items were put together as an Educational Needs Assessment Questionnaire and pilot tested in 34 coronary patients (15 female, 69±8.4 years old) that completed the 6-month cardiac rehabilitation program. Preliminary psychometric testing was performed. Clinical data were extracted from medical charts and patients completed a sociodemographic survey.

Development and validation of a needs assessment tool for cardiac rehabilitation patients
- Literature Search → Draft tool
- Canadian Committee of Experts Review → 10 Experts
- Pilot Study* → At least 30 alumni patients
- Psychometric statistical tests** → At least 200 cardiac rehab patients

*this study **future study

TARGET POPULATION/INTERVENTION

Cardiovascular rehabilitation involves an individualized program of assessment, physical activity, education, lifestyle behaviours and psychosocial support. The Toronto Rehab program is delivered by a interprofessional health team, which work with each patient to personalize activities to their needs and abilities. Patients visit once a week for a 30-minute education session and up to an hour's exercise. Upon completion of the 6 month program, patients graduate to join the cardiac rehab alumni program, Heart Health for Life.

OBJECTIVE

The aim of this study was to pilot testing a new educational needs assessment questionnaire in coronary patients at cardiac rehabilitation programs. This is part of a study focusing on the aspect of patient preference as a subset of existing knowledge deficits in a needs assessment.

RESULTS

PARTICIPANTS CHARACTERISTICS

Characteristics / Categories		Total n=34
Mean Age		69.38±8.4
Months in rehab		11±6.4
Gender	Male	52.9%
	Female	44%
Health Status	Myocardial Infarction	29.4%
	Heart Failure	5.9%
	Hypertension	35.3%
	Diabetes Mellitus type II	29.4%
	Dyslipidemia	2.9%
	Chronic Obstructive Pulmonary Disease	5.9%
	Peripheral Arterial Disease	2.9%
	Smoking history	2.9%
	Angiplasty	38%
	Coronary Bypass	26.5%
Educational Level	Elementary school	5.9%
	High school	20.6%
	College	8.8%
	University	35.3%
	Postgraduate	29.4%
Family income	Below $10,000	0%
	Between $10,000 - $50,000	26.5%
	Between $50,001 - $100,000	38.2%
	Between 100,001 - $150,000	14.7%
	Above $150,000	2.9%

THE SCALE

Rate the importance of each topic to increase your knowledge about coronary artery disease

1. Really not important
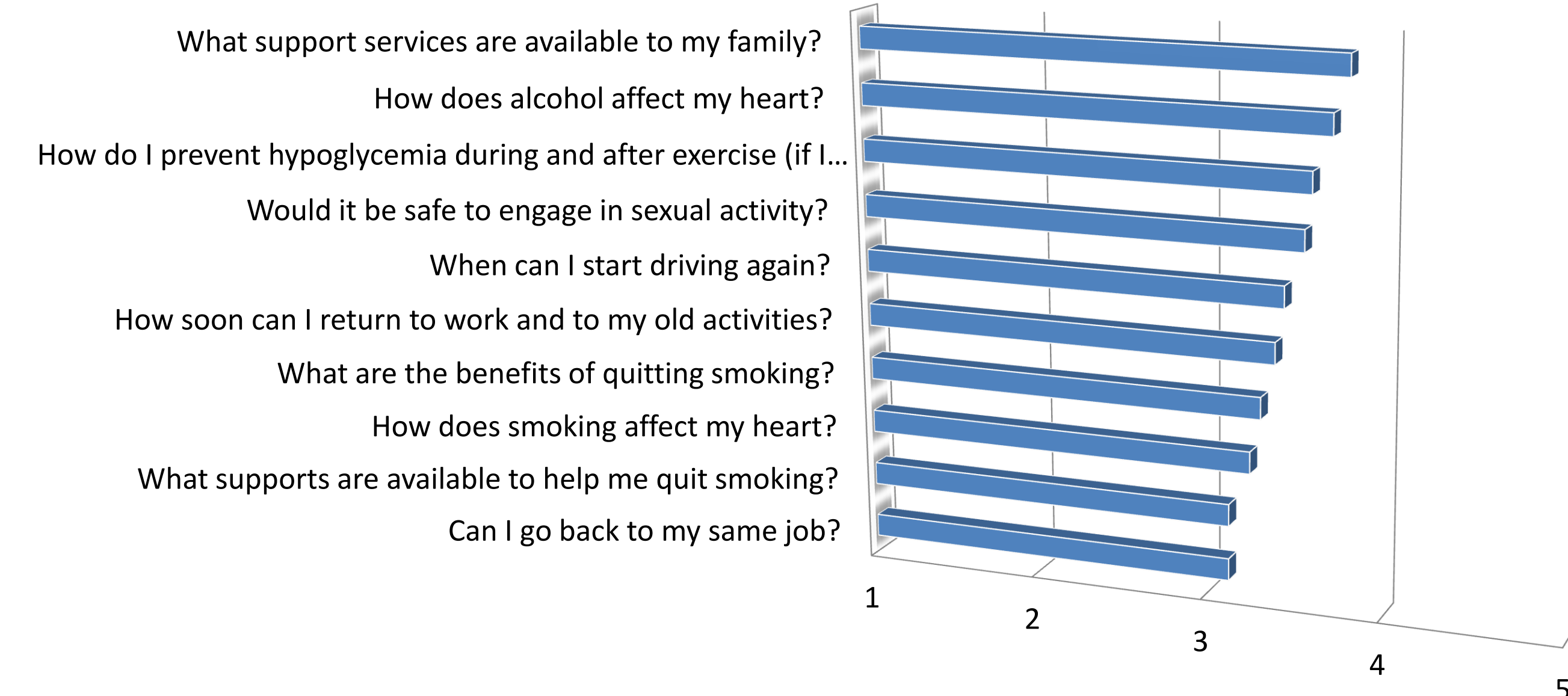2. Not important
3. Neutral
4. Important
5. Very important
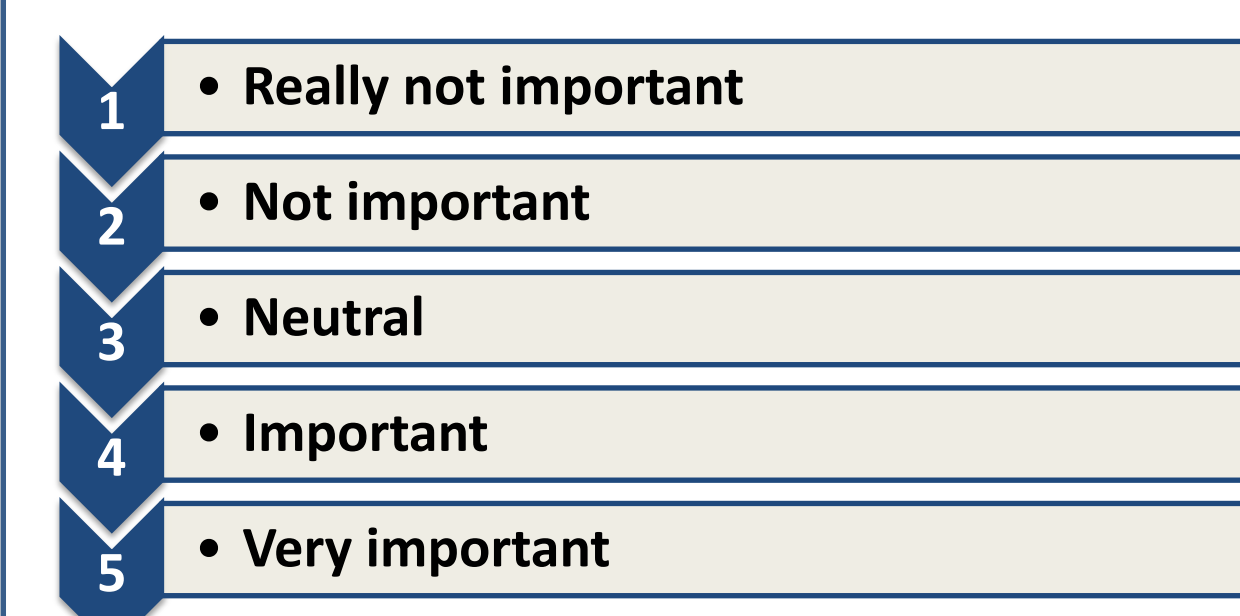
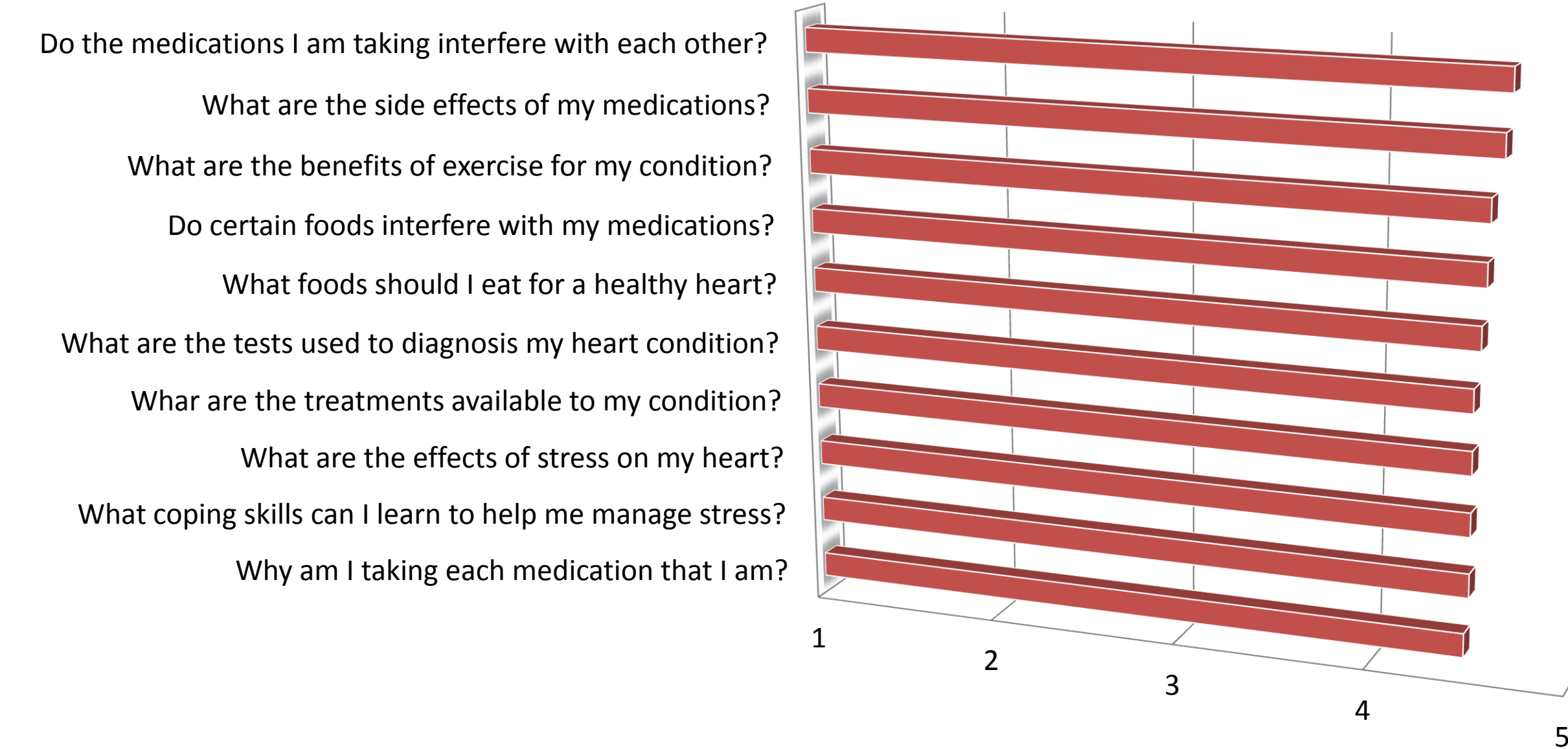### ITEMS/AREAS

Mean Total Score = 4.08±0.52
46/61 items = patients identified educational needs greater than "important"
No significant difference was found between clinical and sociodemographic characteristics.
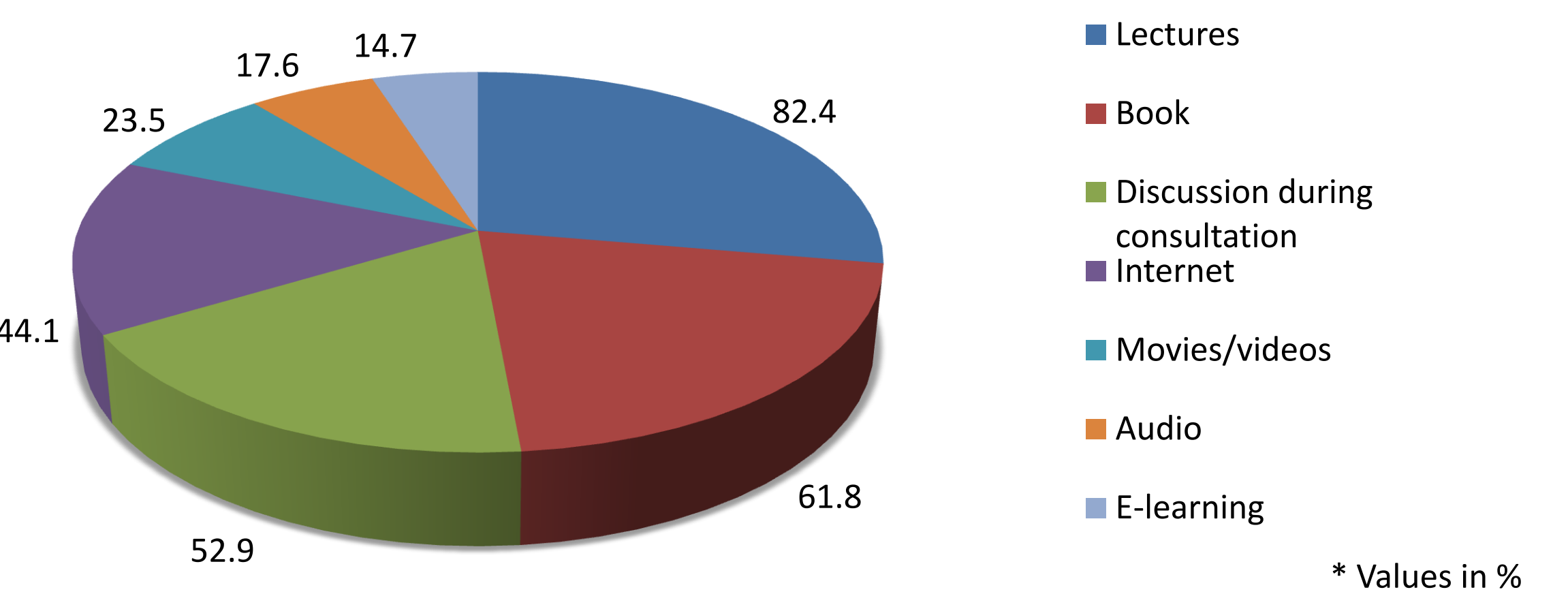
Items with the lowest scores

- What support services are available to my family?
- How does alcohol affect my heart?
- How do I prevent hypoglycemia during and after exercise (if I...
- Would it be safe to engage in sexual activity?
- When can I start driving again?
- How soon can I return to work and to my old activities?
- What are the benefits of quitting smoking?
- How does smoking affect my heart?
- What supports are available to help me quit smoking?
- Can I go back to my same job?

Items with the highest scores

- Do the medications I am taking interfere with each other?
- What are the side effects of my medications?
- What are the benefits of exercise for my condition?
- Do certain foods interfere with my medications?
- What foods should I eat for a healthy heart?
- What are the tests used to diagnosis my heart condition?
- Whar are the treatments available to my condition?
- What are the effects of stress on my heart?
- What coping skills can I learn to help me manage stress?
- Why am I taking each medication that I am?

Areas	Mean	Std Dev
Area 1 - The Heart	4.15	0.64
Area 2 - Nutrition	4.41	0.55
Area 3 - Exercise/Physical Activity	3.92	0.59
Area 4 - Medication	4.38	0.42
Area 5 - Work/Vacational/Social	3.15	1.17
Area 6 - Stress/Psychological factors	4.33	0.45

Areas	Mean	Std Dev
Area 7 - General/social concerns	3.88	0.71
Area 8 - Emergency/safety	4.28	0.72
Area 9 - Diagnosis and treatment	4.5	0.62
Area 10 - Risk factors	4	1.02
Area 11 - Barriers/goal setting	3.96	0.73

EXTRA FINDINGS

Patients were asked to identify their preferences for educational delivery formats.

Question: "How would you prefer this information to be delivered? You can mark as many options as you want.

- Lectures: 82.4
- Book: 61.8
- Discussion during consultation: 52.9
- Internet: 44.1
- Movies/videos: 23.5
- Audio: 17.6
- E-learning: 14.7

* Values in %

IMPLICATIONS FOR POLICY, DELIVERY OR PRACTICE

Cardiovascular Disease is the leading cause of morbidity and mortality worldwide. Cardiovascular rehabilitation (CR) programs have been shown to reduce mortality, improve functional capacity, improve quality of life, and decrease the incidence of rehospitalization for cardiac complications and overall medical costs. Education is an important component to CR and may contribute to patient adherence to this treatment.

To our knowledge, there is no educational needs assessment tool in the literature to address which information is relevant to CR patients, as well as how they prefer that information to be delivered can be an useful first step to tailor/design educational programs, an important part of CR. The main implication of this research is to identify patients'information needs that can be useful to addressed and develop an educational curriculum for cardiac rehabilitation programs. The factors or characteristics that influence patients' information needs in cardiac rehabilitation programs can also be useful to design educational programs tailored to specific groups. Before implementing patient education programs it is prudent to evaluate what patients want to know. The availability of a relevant valid information needs assessment tool is an essential factor to tailor the educational component of CR programs.

In addition, this new tool would also be useful in clinical practice to identify both patients who want to know about CVD in general as well as to specific areas or to provide educational opportunities to meet a patient's specific need within this world of knowledge. Information derived from these studies may help the CR team plan and guide educational classes.

Conclusion: The identification of educational needs is an important component to improve patient education and health outcomes in cardiac rehabilitation. The nature of the needs identified suggest cardiac patients have higher expectations of outpatient care, and that different strategies would be required to promote education in this setting.

CONTACT

Gabriella.MeloGhisi@uhn.ca
Oh.PaulDr@TorontoRehab.on.ca

http://cadeq.wordpress.com
www.torontorehab.com

Toronto Rehabilitation Institute Cardiac Rehabilitation and Secondary Prevention Program
347 Rumsey Rd, Toronto, ON Canada
+1(416)597-3422 ext 5223