



Evidence of the effectiveness of a digital tool to promote health service literacy among young university students

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Introduction – Context

POPULATION

University students (18-24 years)

- Are away from home in a new town
- Face the transition from family dependence to adulthood
- Are generally in good health but health problems have their onset at this age + recommended check-ups
- Are a highly connected generation

THE ISSUE

Finding and accessing health services

- Lack of knowledge about where to get treatment (barrier)
- But easy access to online health information
- Need for students to be guided in the information overload (interpretation and evaluation)

Health Literacy and Health Service Literacy

HEALTH LITERACY

Capacity to seek and understand “health information” in order to make appropriate health decisions, including receiving health care.

Sørensen et al., 2012

Health Literacy and Health Service Literacy

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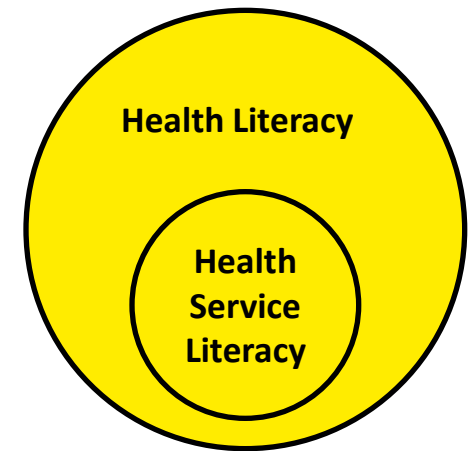
A vague term covering a wide range of information and opinions about health and illnesses, both at the individual and societal levels, including information in relation to a health service

Health Literacy and Health Service Literacy

HEALTH SERVICE LITERACY

Capacity to seek and understand information specifically about health services (for instance opening time, staff, service offer, and costs) in order to access them. It is not the sole knowledge of available health services, but also implies the concrete application of such knowledge to access care.

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Background to Research

- Student Health Services in most university campuses in the world (called SUMPSS in France)
 - partially or totally free consultations
- Limited staff and less supply than demand
- Not really known by students (paradox)*

Findings from i-Share survey

- 6% refused to consult any GP or specialist because they did not know where to find him/her
- 12% refused to consult any dentist because they did not know where to find him/her
- 21% refused to consult any gynecologist because they did not know where to find him/her

* USA survey by Perrault, 2015; Australian survey by Schweitzer, 1996; French ongoing survey i-Share

Challenges

For health care educators and professionals, parents and professors

- 1) Deliver information on health services which is **appealing, readable** and **understandable** to a young public
- 2) Choose the mean to deliver such information
 - Internet, new technologies, **digital information tools**
- 3) Increase students' interest to become health service literate
 - Academic workload, worries of young adulthood, feeling that health information does not concern them

PUBLIC HEALTH AIM

Increase university students' health service literacy in order to promote access to health care and reduce morbidity and mortality in young adults

Through the production of an ad hoc digital information tool in the form of an interactive map

Objective and research questions

OBJECTIVE

Examine whether an ad hoc **digital information tool** providing trustworthy information on health services can be effective in increasing students' health service literacy

RESEARCH QUESTIONS

- 1) Can an *ad hoc* digital information tool increase students' knowledge of available health services?
- 2) Are *ad hoc* digital information tools a valid alternative to unguided Internet search of information on health services?
- 3) Can networks of support like university staff and health care professionals play a pivotal role in helping students in their uptake of online health information seeking?
- 4) Are the design and usability of *ad hoc* digital information tools determinant in facilitating the acquisition of information on health services?

Methodology

servi-Share (services in the i-Share cohort study)*

Team: 4 researchers + 3 public health graduate students + 7 health care professionals + 3 industry web-developers

Digital information tool: an interactive mobile-friendly map displaying 88 preselected youth-friendly health services with detailed information on opening time, staff, service offer, and costs

* Montagni, I., Langlois, E., Wittwer, J., Tzourio, C.: Co-creating and Evaluating a Web-app Mapping Real-World Health Care Services for Students: The servi-Share Protocol. JMIR Res. Protoc. 6(2):e24 (2017).

Methodology

servi-Share (services in the i-Share cohort study)

Team: 4 researchers + 3 public health graduate students + 7 health care professionals + 3 industry web-developers

Digital information tool: an interactive mobile-friendly map displaying 88 preselected **youth-friendly** health services with detailed information on opening time, staff, service offer, and costs



Services low-cost or free health care outpatient services addressed, either exclusively or among other population groups, to young people aged 18-24 years

Methodology

servi-Share (services in the i-Share cohort study)

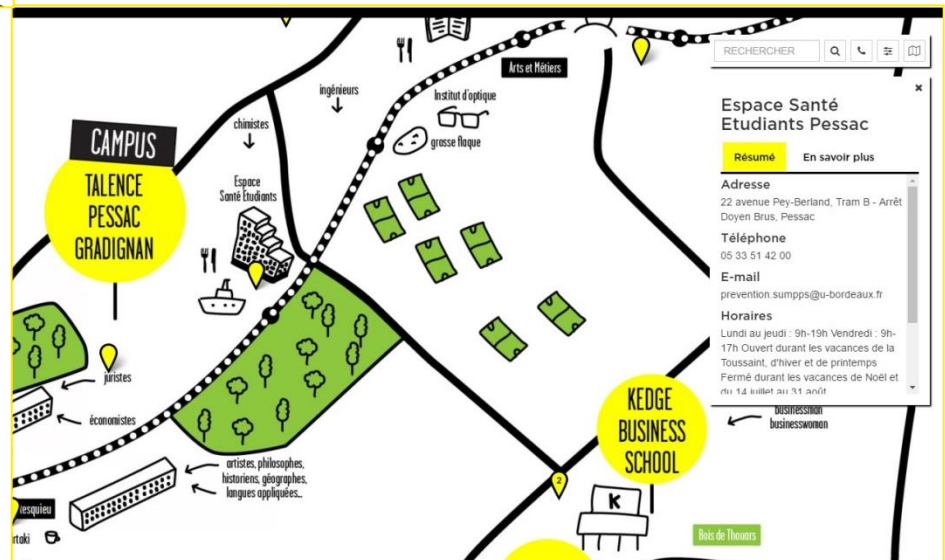
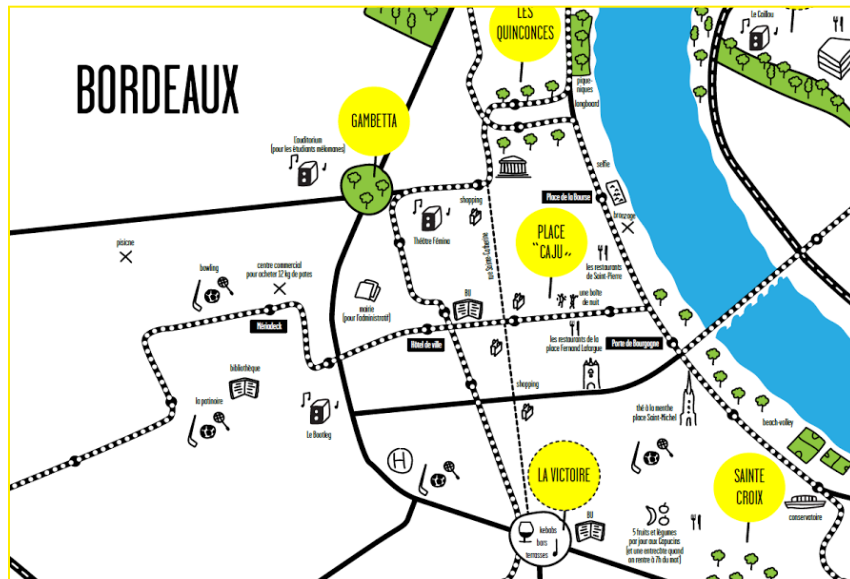
Team: 4 researchers + 3 public health graduate students + 7 health care professionals + 3 industry web-developers

Digital information tool: an interactive mobile-friendly map displaying 88 preselected youth-friendly **health services** with detailed information on opening time, staff, service offer, and costs



All health domains, from general health to sexual health, gynecology, and dentistry

The servi-Share digital information tool



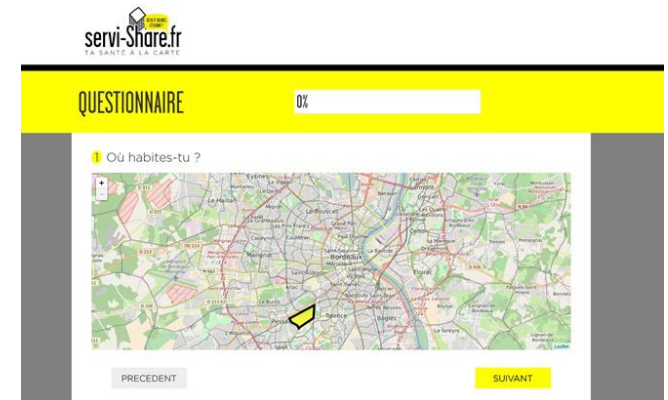
The test and the measures

- Between September and December 2016
- Ethical approval by CNIL
- Contact by e-mail of a convenience sample of 1.300 students
 - of one of the universities or post-secondary schools of the Bordeaux area
 - aged 18-30 years
 - having completed the i-Share baseline questionnaire
- Two questionnaires, before and after the use of the tool
- Additional data (gender, age, field of study, health status and service utilisation) from the i-Share database

Questionnaire 1 (September 2016)

Prior to the use of the tool, online 7-item questionnaire

- 1) Place of living
- 2) University location
- 3) Years living in Bordeaux
- 4) Favorite mean of transport
- 5) Youth-friendly health service of main interest
- 6) Best criterion to choose a youth-friendly health service
- 7) Knowledge of youth-friendly health services in Bordeaux



Questionnaire 2 (November 2016)

Supplementary online satisfaction questionnaire, 10-item Google Form

- 1) Difficulties in using the tool
- 2) Design appreciation
- 3) Discovery of new services in general
- 4) Discovery of new services to access in the future
- 5) This tool instead of other search engines
- 6) Promotion of the tool
- 7) Information channels
- 8) Recommendations
- 9) Improvements
- 10) Ratings



QUESTIONNAIRE 1

- Final sample of **319 students** (24% response rate)
- 253 female students, 79%

QUESTIONNAIRE 2

- Final sample of **73 students** (23% response rate)
- 58 female students, 79%

Socio-demographic characteristics of the respondents

Socio-demographic variables	First questionnaire <i>servi-Share</i>	Satisfaction questionnaire <i>servi-Share</i>
Age*	21.7 (2.2)	21.3 (1.7)
Gender		
Female	253 (79.3%)	58 (79.5%)
Male	66 (20.7%)	15 (20.5%)
Field of study		
Health Studies	89 (27.9%)	26 (35.6%)
Medicine	56 (17.6%)	11 (15.1%)
Literature and Social Sciences	86 (27.0%)	18 (24.7%)
Scientific Disciplines	28 (8.8%)	5 (6.8%)
Law and Economy	29 (9.1%)	6 (8.2%)
Other	21 (6.6%)	4 (5.5%)
Missing	10 (3.1%)	3 (4.1%)
Health Status		
Very good	72 (22.6%)	18 (24.7%)
Good	186 (58.3%)	45 (61.6%)
Average	56 (17.6%)	9 (12.3%)
Poor	5 (1.6%)	1 (1.4%)
Very poor	-	-
Consultations with a health professional		
General practitioner	278 (87.1%)	62 (84.9%)
Dentist	136 (42.6%)	34 (46.6%)
Ophthalmologist	120 (37.6%)	29 (39.7%)
Gynecologist	133 (41.7%)	28 (48.3%)
At least 1 other specialist	200 (62.7%)	47 (64.4%)
Total	319 (100.0%)	73 (100.0%)

First research question : “Can an ad hoc digital information tool increase students’ knowledge of available health services?”

- 187/319 (60%) students had no knowledge of youth-friendly health services in Bordeaux before using the tool
- 187/319 (60%) also reported avoidance and delay of health care partially due to lack of information on local youth-friendly health services
- Students were mostly interested in obtaining information on the three following types of youth-friendly health services:
 - general practitioner (258/319, 81%)
 - gynecologist (194/253, 77%)
 - dentist (191/319, 60%)

First research question : “Can an ad hoc digital information tool increase students’ knowledge of available health services?”

- 62/73 (85%) students reported that the servi-Share digital information tool provided them with clear information on either new services or services they partially knew
- 61/73 (84%) declared that they would access some displayed youth-friendly health services in the future

First research question : “Can an ad hoc digital information tool increase students’ knowledge of available health services?”

- Before the use of our tool, less than half of the sample (33/73, 46%) had declared knowing at least one youth-friendly health service
- After the use of our tool, more than two thirds of students (60/73, 85%) declared having acquired new knowledge on youth-friendly health services
- Regardless of the knowledge of any youth-friendly health service before the use of the servi-Share digital information tool, the proportion of students declaring having obtained new information on youth-friendly health services thanks to our tool was high (84%)

Second research question : “Are ad hoc digital information tools a valid alternative to unguided Internet search of information on health services?”

- The majority of students (N=50/73, 68%) would use the servi-Share digital information tool instead of other existing search engines
- Students considered then this tool as a valid alternative to unguided Internet search of health information

Third research question : “Can networks of support like university staff and health care professionals play a pivotal role in helping students in their uptake of online health information seeking?”

- 70/73 (96%) students reported that promoting the servi-Share digital information tool through the official website and social network pages of their university was important to increase its credibility
- Students felt reassured by the fact that the information on displayed health services was selected by a pool of public health researchers and health care professionals
- Networks of support like health care experts can help students in navigating online health information

Fourth research question : “Are the design and usability of ad hoc digital information tools determinant in facilitating the acquisition of information on health services?”

- 67/73 (92%) students did not find any difficulties in using the servi-Share digital information tool
- 55/73 (75%) liked its design
- Usability and design of ad hoc digital information tools may then be determinant in facilitating the acquisition of information on health services
- Students appreciated that information was concise and clear and that plain language was used instead of medical jargon

Limitations and Future Steps

LIMITATIONS

- Survey was based on self-evaluation
- Only 1/5 of the respondents to the first questionnaire completed the second satisfaction questionnaire
- Only students from the Bordeaux area → limited generalizability

FUTURE STEPS

- Use personalized communications, multimodal contact strategies, thoughtful use of communication technologies, and adherence to customer service principles
- Take action in providing evidence of effective methods for monitoring and evaluation of digital tools for health-related information
- For any possible similar tool, the use of a design thinking approach is recommended

Concluding remarks

- Data collected in this study suggest that students' health service literacy is low, but digital information tools have the potential to improve it, provided that the information is trustworthy and tools are conceived and constructed by experts
- Today, new technologies and the Internet are the best means to deliver information on health services to this highly-connected population
- This specific study on French students provided insights for digital information tools on health services information to be adapted, produced and disseminated in other countries
- Building capacity of any students worldwide to seek information on health services can contribute to their health service literacy, thus promoting their access to care by reducing the risk of making health decisions on the basis of non-credible information

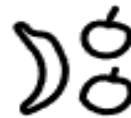
LA VICTOIRE



kebabs
bars
terrasses

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SAINTE
CROIX



5 fruits et légumes
par jour aux Capucins
(et une entrecôte quand
on rentre à 7h du mat')



conservatoire

Rock School
Barbey

